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日精电子



薄膜电容器

Film Capacitors for PCB

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简介 General Information(2~16)	
B01 (17~20)	MP1 系列金属化聚丙烯膜抗干扰电容器（X2 类，275Vac/310 Vac） MP1 Series Metallized polypropylene film interference Suppression capacitor(Class X2 ，275Vac)
B02 (21~24)	MP1 系列金属化聚丙烯膜抗干扰电容器（X2 类，275Vac/310Vac,THB 防潮系列） MP1 Series Metallized polypropylene film interference Suppression capacitor(Class X2, 275Vac/310Vac,Temperature Humidity Bias(THB) series)
B03 (25~29)	MP6 系列安全等级 S0 的金属化聚丙烯膜交流电动机电容器（塑料外壳） MP6 Series Safety class S0 Metallized polypropylene film AC motor capacitor (Box-type)
B04 (30~32)	MP6 系列安全等级 S3 的金属化聚丙烯膜交流电动机电容器（塑料外壳） MP6 Series Safety class S3 Metallized polypropylene film AC motor capacitor (Box-type)
B05 (33~40)	BMC 系列金属化聚酯膜电容器（盒式） BMC Series Metallized polyester film capacitor(Box-type)
B06 (41~50)	BPE 系列金属化聚丙烯膜电容器（盒式） BPE Series Metallized polypropylene film capacitor(Box-type)
B07 (51~59)	BPA 系列金属化聚丙烯膜电容器（盒式 DC-filter） BPA Series Metallized polypropylene film capacitor(Box-type DC-filter)
B08 (60~67)	BPS 系列塑料外壳双面金属化聚丙烯膜电容器 BPS Series Double sided metallized polyproplene film capacitor (Box-Type)
B09 (68~76)	MPZ 系列金属化聚丙烯膜电容器（盒式） MPZ Series Metallized polypropylene film capacitor (box type)
B10 (77~81)	MX1 系列金属化聚丙烯膜抗干扰电容器（X1 类， 480Vac） Metallized polypropylene film InterferenceSuppression capacitor(Class X1，480Vac/440Vac)
B11 (82~87)	MY2 系列金属化聚丙烯膜抗干扰电容器（Y2 类，300Vac） Metallized polypropylene film Interference Suppression capacitor(Class Y2 ，300Vac)
电力电子电容器 Capacitors for power electronics (88~97)	
B12 (98~109)	MPY 系列 PCB 用 DC-Link 电容器 MPY Series DC-Link Capacitor for PCB< 60℃/93%RH /1000h / UNDC >
B13 (110~122)	MPY 系列 DC-Link 电容器(PCB) THB 防潮系列 MPY Series DC-Link Capacitor (PCB)< 85℃/85%RH /1000h / UNDC > Temperature Humidity Bias(THB) series
B14 (123~126)	MPYH 系列高耐温金属化薄膜车载电容器（PCB,125℃） MPYH Metallized High Temperature film Capacitor For Automotive（PCB,125℃）
B15 (127~135)	MPY（R）系列低高度设计 PCB 用 DC-Link 电容器（安全膜设计） MPY（R）Series Low building height DC-Link Capacitor for PCB
B16 (136~148)	MPYL 系列交流滤波电容器（PCB） MPYL Series AC fliter Capacitor for PCB
B17 (149~156)	MPH 系列 IGBT 吸收电容器（PCB） MPH Series Snubber capacitor for IGBT（PCB）

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概述：

■ 薄膜电容器简介	General Information
引用标准	Reference Standard
常用的标准术语	Terminologies
典型特性、应用及特性曲线	Typical Properties, Applications and Typical graphs
电容器结构示意图	Capacitors Construction
使用薄膜电容器的注意事项	Caution items in using film capacitor
环保产品	Environmental-friendly products
订购须知	Purchase specification
引线产品包装方式	Packing for tinned-wire capacitor

电容器分类：	
抑制电源电磁干扰电容器	Interference suppression Capacitors
电力电子电容器	Capacitors for Power Electronics
交流电动机电容器	AC Motor Capacitors
金属化聚丙烯薄膜电容器	Metallized Polypropylene Film Capacitors
金属化聚酯薄膜电容器	Metallized Polyester Film Capacitors

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薄膜电容器简介 General Information

一、薄膜电容器的标准体系

电子设备用固定电容器的标准体系是由总规范、分规范、空白详细规范、及详细规范（企业标准）组成。也就是说，企业标准是按总规范和分规范的基本要求，填写空白详细规范而成。

一、The Standard system

The standard system of plastic film capacitor for use in electronic equipment composes the generic specification, sectional specification, blank detail specification and detail specification (manufacturer specification). That is to say a manufacturer specification is derived from blank detail specification according to the basic requirements of generic and section specifications.

标准号（No.）	标准（Standards）
GB/T 2693 **(IEC 60384-1)**	第 1 部分：总规范 Part 1: Generic specification
GB/T 7332 **(IEC 60384-2)**	第 2 部分：分规范：金属化聚乙烯对苯二甲酸脂膜介质直流固定电容器 Part 2: Sectional specification： Fixed metallized polyethylene-terephthalate film dielectric d.c. capacitors
GB/T 7333 **(IEC 60384-2-1)**	第 2-1 部分：空白详细规范：金属化聚乙烯对苯二甲酸脂膜介质直流固定电容器评定水平 E 和 EZ Part 2-1: Blank detail specification：Fixed metallized polyethylene-terephthalate film dielectric d.c. capacitors assessmen levels E and EZ
	注：聚乙烯对苯二甲酸脂膜以下简称聚酯薄膜 Note：polyethylene-terephthalate film hereinafter referred to as Polyester Film
GB/T 10188 **(IEC 60384-13)**	第 13 部分：分规范：金属箔式聚丙烯膜介质直流固定电容器 Part 13: Sectional specification：Fixed polypropylene film dielectric metal foil d.c. capacitors
GB/T 10189 **(IEC 60384-13-1)**	第 13-1 部分：空白详细规范：金属箔式聚丙烯膜介质直流固定电容器评定水平 E 和 EZ Part 13-1: Blank detail specification：Fixed polypropylene film dielectric metal foil d.c. capacitors assessmen levels E and EZ
GB/T 6346.14 **(IEC 60384-14)**	第 14 部分：分规范：抑制电源电磁干扰用固定电容器 Part 14: Sectional specification：Fixed capacitors for electromagnetic interference suppression and connection to the supply mains
GB/T 6346.1401 **(IEC 60384-14-1)**	第 14-1 部分：空白详细规范：抑制电源电磁干扰用固定电容器评定水平 D Part 14-1：Blank detail specification：Fixed capacitors for electromagnetic interference suppression and connection to the supply mains assessmen level D
GB/T 10190 **(IEC 60384-16)**	第 16 部分：分规范：金属化聚丙烯膜介质直流固定电容器 Part 16：Sectional specification：Fixed metallized polypropylene film dielectric d.c. capacitors
GB/T 10191 **(IEC 60384-16-1)**	第 16-1 部分：空白详细规范：金属化聚丙烯膜介质直流固定电容器评定水平 E 和 EZ Part 16-1：Blank detail specification：Fixed metallized polypropylene film dielectric d.c. capacitors assessmen levels E and EZ
GB/T 14579 **(IEC 60384-17)**	第 17 部分：分规范：金属化聚丙烯膜介质交流和脉冲固定电容器 Part 17：Sectional specification：Fixed metallized polypropylene film dielectric a.c. and pulse capacitors
GB/T 14580 **(IEC 60384-17-1)**	第 17-1 部分：空白详细规范：金属化聚丙烯膜介质交流和脉冲固定电容器评定水平 E 和 EZ Part 17-1：Blank detail specification：Fixed metallized polypropylene film dielectric a.c. and pulse capacitors assessmen levels E and EZ
IEC 60384-20	金属化聚苯硫醚膜介质直流片式固定电容器 Fixed metallized polyphenylene sulfide film dielectric surface mount d.c. capacitors
GB/T 17702 **(IEC 61071)**	电力电子电容器 Capacitors for power electronics
GB/T 3667.1 **(IEC 60252-1)**	第 1 部分：交流电动机电容器 Part 1: AC motor capacitor
GB/T 3667.2 **(IEC 60252-2)**	第 2 部分：交流电动机电容器 Part 2: AC motor capacitor
AEC-Q200 **REV D :2010**	无源汽车电子器元件应力测试认证 Passive automotive electronic components stress test certification

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二、常用的标准术语

1、额定温度

可以连续施加额定电压的最高环境温度。

2、下限类别温度

电容器设计所确定的能连续工作的最低环境温度。

3、上限类别温度

电容器设计所确定的能连续工作的最高环境温度。

4、额定电压（U_R）

在下限类别温度和额定温度之间的任意温度下，可以连续施加在电容器上的最大直流电压或脉冲电压的峰值。

5、类别电压（U_C）

电容器在上限类别温度下可以连续施加在电容器上的最高电压。

6、损耗角正切（Tan δ）

在规定频率的正弦电压下，电容器的损耗功率除以电容器的无功功率。

7、绝缘电阻（I.R.）

电容器充电一分钟后所加直流电压和流经电容器的漏电流之比，单位为 MΩ。

一般情况下，绝缘电阻用来描述容量小于等于 0.33μF 的电容器的绝缘特性。

8、时间常数（τ）

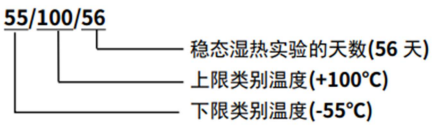
绝缘电阻和电容量的乘积。通常用下式表示：

τ（s）=I.R.（MΩ）×C（μF）

一般情况下，时间常数用于描述大容量（＞0.33μF）的电容器的绝缘特性。

9、气候类别

电容器所属的气侯类别用斜线分隔的三个数来表示。（IEC 60068-1：如 55/100/56）



二、Terminologies

1. Rated Temperature

The highest environmental temperature in which capacitor applied continuouslywith the rated voltage.

2. Lower Category Temperature

The lowest ambient temperature at which a capacitor can operate continuously.

3. Upper Category Temperature

The highest environmental temperature determined by capacitors design and inwhich capacitormay continuouslywork.

4. Rated Voltage（U_R）

The maximum D.C. voltage or peak value of pulse voltage that can beapplied continuously to capacitor at any temperature between lowercategory temperature and rated temperature

5. Category Temperature（U_C）

The maximum voltage that can be applied to capacitor at upper category temperature.

6. Dissipation Factor（Tan δ）

The dissipation factor is ratio between reactive power of the impedanceof the capacitor and effective power when capacitor is submitted to asinusoidal voltage of specified frequency.

7. Insulation Resistance（I.R.）

The insulation resistance is the ration between an applied D.C. voltage and the resulting leakage current after a specified time, expressed in MΩ.

In general, insulation resistance is used for describing smaller capacitance capacitors' insulation character.(C≤0.33μF)

8. Time Constant（τ）

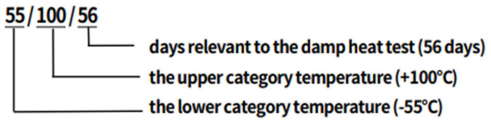
The time constant is expressed in seconds with the following formula：

τ（s）=I.R.（MΩ）×C（μF）

In general, time constant is used for describing larger capacitance capacitors' insulation character.(C＞0.33μF)

9. Climatic Category

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes,(IEC 60068-1:example 55/100/56).



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10、电容量温度系数（a）

电容器的电容量在规定温度范围内随温度的变化率。通常以 20℃时电容量为基准，用 10^{-6}/℃表示。（1ppm/℃）

$$a_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

C_i：电容器在温度 T_i 时的容量。

C_0：电容器在温度 T_0 （20±2）℃时的容量。

10. Temperature Coefficient of Capacitance(a)

The charge rate of capacitance with temperature measured over a specified range of temperature. It is normally expressed in parts per million per Celsius degree (10^{-6}/℃) and referred to 20℃.

$$a_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

C_i：Capacitance at temperature T_i.

C_0：Capacitance at temperature T_0 （20±2）℃.

11、自愈性（仅对金属化薄膜电容器）

金属化膜的金属镀层是通过真空蒸发的方法将金属沉积在薄膜上，厚度只有几十个纳米，当介质上存在弱点、杂质时，局部电击穿就可能发生，电击穿处的电弧放电所产生的能量足以使电击穿点邻近处的金属镀层蒸发，使击穿点与周围极板隔开，电容器电气性能即可恢复正常。

11. Self-healing(Only for metallized film capacitor)

The metal coatings of themetallized film,which are vacuum-depositeddirectly onto the plastic film, have a thickness of only several tens nm.

At weak points or impurities in the dielectric, a dielectric breakdownwould occur. The energy released by the arc discharge in thebreakdown channel is sufficient to totally evaporate the thin metalcoating in the vicinity of the channel. The insulated region thusresulting around the former faulty area will cause the capacitor toregain its full operation ability.

12、表面温升

电容器在交流或脉冲条件下工作时，由于电容器的损耗而引起的电容器温度相对于环境温度的升高。请检查电容器表面的温度以确保其不超过其上限类别温度。

12. Surface Overtemperature

When a capacitor is used in AC applications, associated self-heating will increase its surface temperature above the ambient temperature. It’s essential to take this into account in order not to exceed the upper category temperature. A temperature check should be performed on a capacitor in case of doubt.

13、电压爬升斜率

最大电压爬升斜率（dv/dt）值决定了电容器所能承受的峰值电流，单位为 V/μs

13. dv/dt

Maximum admissible dv/dt defines the capability of capacitor to withstand high current peak due to fast voltage changes, expressed in V/μs.

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三、典型特性、应用及特性曲线

1、典型特性

聚酯薄膜

工作温度范围宽

介电常数大

自愈特性好

容积比大

稳定性好

聚丙烯薄膜

损耗角正切值极低

介质吸收系数低

绝缘电阻高

频率特性好

自愈特性好

稳定性好

2、典型应用

聚酯薄膜电容器

隔直和耦合

旁路

退偶

滤波

定时

低压脉冲电路

振荡电路

聚丙烯薄膜电容器

交流场合

高频脉冲应用

大电流场合

高稳定的定时场合

开关电源

照明行业

工控行业

高 Q 滤波

三、Typical Properties, Applications and Typical graphs

1. Typical Properties

Polyester Film

Very wide operating temperature range

High dielectric constant

Excellent self-healing properties

Very good ratio box size/capacitance

Good stability

Polypropylene Film

Very low dissipation factor(tgδ）

Very low dielectric absorption

Very high insulation resistance

Good behavior at high frequency

Excellent self-healing properties

Very good stability

2. Typical Application

Polyester film capacitor

Blocking and coupling

By-passing

Decoupling

Filtering

Timing

Low pulse circuits

Oscillator circuits

Polypropylene film capacitor

A.C. application

High frequency,pulse applications

High current

Timing with high stability

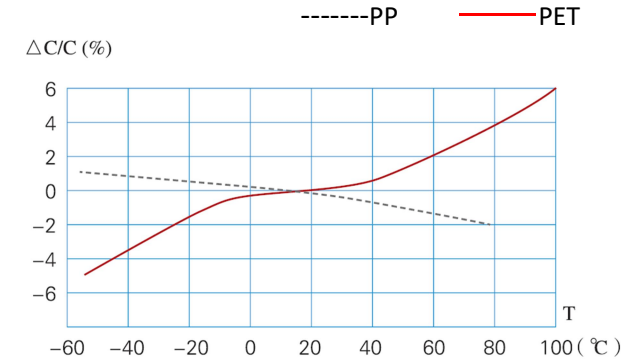
SMPS

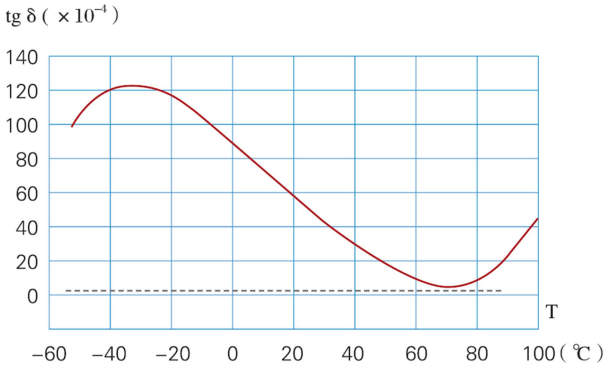
Lighting

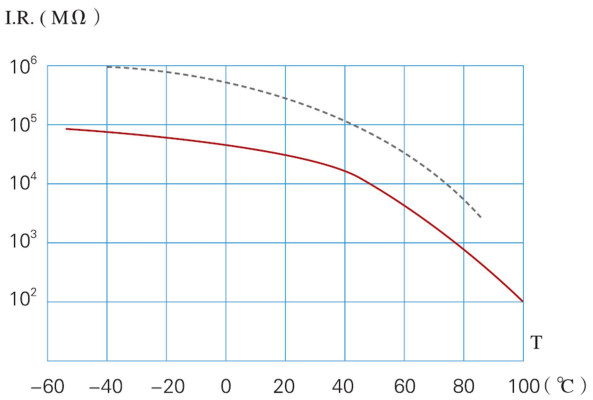
Industrial controller

Filteringhigh Q

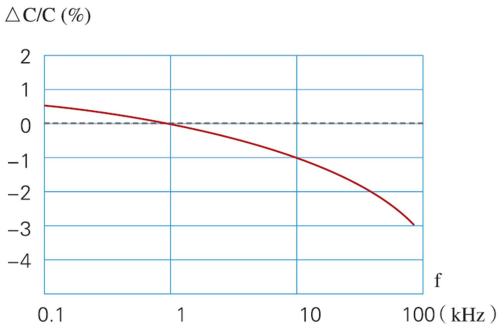
3、特性曲线

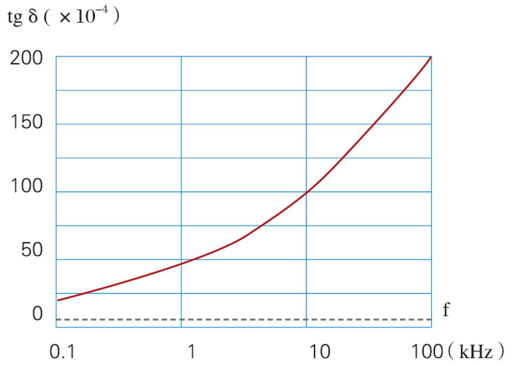






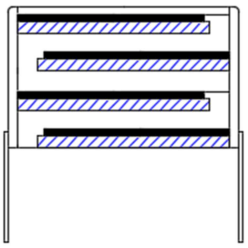
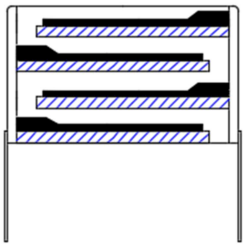
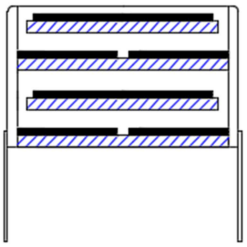
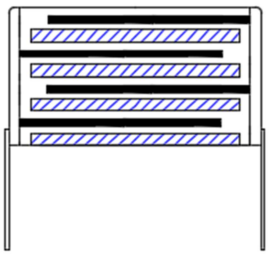
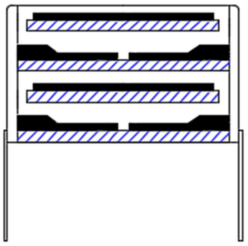
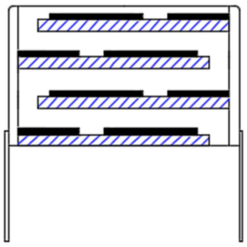
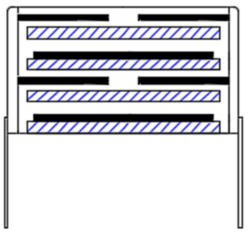
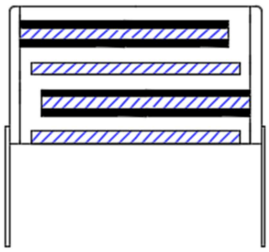
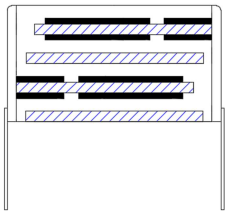
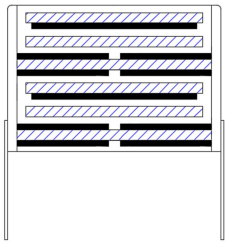
3、Typical graphs





四、薄膜电容器的基本结构（Film capacitor basic construction）

电容器结构示意图（Different capacitor constructions）

			
1	2	3	4
			
5	6	7	8
			
9	10		
			
薄膜 Film	金属化膜 Metallized film		
			
双面金属化膜 Double sided metallized film	铝箔 Aluminum foil		

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五、使用薄膜电容器的注意事项

1、工作电压的选取

薄膜电容器的选用取决于其工作时所施加的最高电压，并受到施加电压的波形、电流波形、频率、环境温度（电容器外表面温度）、环境湿度、电容量等因素的影响。使用前请先检查电容器两端的电压波形、电流波形及频率是否在所选取电容器的额定值的范围内。

2、工作电流

通过电容器的电流为电容量 C 与电压爬升速率 dv/dt 的乘积，即 I=C×dv/dt。

当在电容器两端施加交流或脉冲电压时，由于电容器存在损耗，通过电容器的交流或脉冲电流会使电容器自身发热而产生温升，极端条件下会出现热击穿并伴随冒烟、起火的危险。因此，电容器安全使用条件不仅受额定电压的限制，而且还受到额定电流的限制。

额定电流被认为是由击穿模式决定的脉冲电流（峰值电流，由 dv/dt 所限制）和连续电流（通常以峰值或者有效值表示）组成，使用时需确认这两种电流都在电容器的允许范围之内。

高频高脉冲下，我们推荐使用聚丙烯薄膜电容器 MPZ。

3、各种波形的峰值与有效值换算关系

五、Caution items in using plastic film capacitor

1. Chose of the operation voltage

The film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitor within its specified values by checking the voltage waveform, current waveform and frequency, the permissible voltage varies for different capacitor type.

2. Operation current

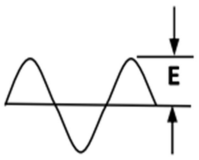
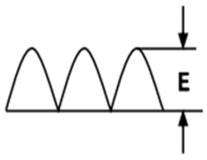
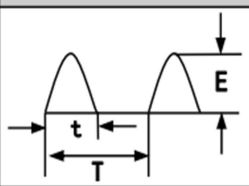
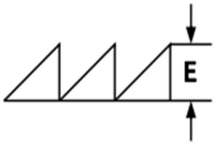
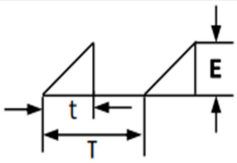
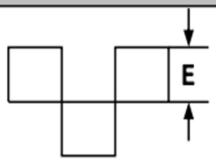
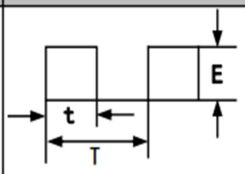
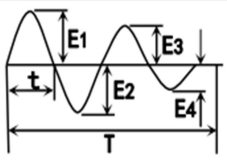
The A.C. or impulse current flowing though the capacitor depends on the product of voltage rise rate (dv/dt) and capacitance: I=C×dv/dt.

Due to the dissipation factor of the capacitor will generate the internal heat under the application of high frequency or high pulse current, temperature rise in it will occur and may cause deterioration of with standing voltage, even lead to break down. Therefore, the safety use of capacitor must be within the rated voltage and the permissible current.

The rated current must be considered by dividing into pulse current (peak current) and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible values.

Under the application of high frequency or high pulse, we recommend to use the polypropylene film capacitor MPZ.

3. Calculation of rms in various waveform

种类(type)	1	2	3	4
波形 (waveform)				
有效值(rms)	$E/\sqrt{2}$	$E/\sqrt{2}$	$E\sqrt{t/(2T)}$	$E/\sqrt{3}$
种类(type)	5	6	7	8
波形 (waveform)				
有效值(rms)	$E\sqrt{t/(3T)}$	E	$E\sqrt{t/T}$	$\sqrt{\frac{t}{2T}(E_1^2+E_2^2+E_3^2+E_4^2)}$

NISSEI

4、抑制电源电磁干扰用电容器

电容器用于电源跨线电路抑制电磁干扰时，不仅有正常的电压，还会有异常脉冲电压发生，这可能会导致电容器发生电击穿甚至冒烟或者起火。所以，电源跨线用电容器请使用经过安全认证的安规电容器。

不允许将非安规电容器用作电源跨线电容器。

4. EMI suppression of A.C. power supply

When using a capacitor across-the-line as means for suppression of electromagnetic interference, not only the supply voltage is always applied, but also abnormal surge such as impulse voltage, which may lead the capacitor to breakdown even to smoking or firing. Therefore, please use those approved products which conform to corresponding safety standards as the across-the-line capacitor.

The capacitor which is not approved will not be used in across-the-line.

X 类抑制电源电磁干扰用电容器

适用于在电容器失效时不会导致电击危险的场合，分为 X1，X2，X3 三个类别

EMI suppression of A.C. power supply（Class X）

It is suitable for being used in situation where failure of the capacitor could not lead to danger of electric shock, classified as class X1, X2，X3.

Y 类抑制电源电磁干扰用电容器

适用于在电容器失效时会导致电击危险的场合，分为 Y1，Y2，Y3,，Y4 四个类别

EMI suppression of A.C. power supply（Class Y）

It is suitable for being used in situation where failure of the capacitor could lead to danger of electric shock, classified as class Y1, Y2, Y3, Y4.

类别 （Class）	使用时的峰值脉冲电压（kV） Peak impulse voltage in service(kV)	绝缘类型 Insulation type	应用 Application	耐久性实验前施加的峰值脉冲电压 U_p（kV） Peak impulse voltage，U_p，before endurance test（kV）
X1	＞2.5 ≤4.0	Ⅲ	高脉冲应用 High pulse application	C_N≤1.0μF，4 C_N＞1.0μF，$4/\sqrt{C_N}$
X2	≤2.5	Ⅱ	一般用途 General purpose	C_N≤1.0μF，2.5 C_N＞1.0μF，$2.5/\sqrt{C_N}$
X3	≤1.2	----	一般用途 General purpose	----

类别	额定电压（Vac） Rated voltage(Vac)	耐久性实验前施加的峰值脉冲电压 U_p（kV） Peak pulse voltage up before endurance test(kV)
Y1	≤500	8.0
Y2	≥150，≤500	C_N≤1.0μF，5 C_N＞1.0μF，$5/\sqrt{C_N}$
Y3	≥150，≤250	----
Y4	＜150	2.5

类别 Class	额定电压 Rated Voltage(Vac)	耐电压 Voltage Proof	
		引线之间 Terminal to terminal	极壳之间 Terminal to case
X1、X2	≤1000	$4.3U_R$(d.c.)	$2U_R$+1500(a.c.)with a minimum of 2000V(a.c.)
Y1	≤500	4000(a.c.)	4000(a.c.)
Y2	≥150，≤500	U_R+1200V(a.c.)with a minimum of 1500V(a.c.)[1)]	$2U_R$+1500V(a.c.)with a minimum of 2000V(a.c.)[1)]
Y3	＜150	900V(a.c.)[1)]	900V(a.c.)[1)]
[1)] Y2 类和 Y3 类电容器的逐批试验，交流试验电压可以用规定交流电压 1.5 倍的直流电压代替。 For lot-by-lot tests of Class Y2 and Y4-capacitors，the a.c. test voltage may be replaced by a d.c. voltage of 1.5 times the Prescribed a.c. voltage。			

5、电容器的充电和放电

电容器的充放电电流取决于电压爬升或下降的速率 dV/dt 与电容量的乘积，即使是低电压充放电，也可能会产生很大的瞬间电流，这可能会导致电容器性能的损害。当进行充放电时，请串联一个 20Ω/V~1000Ω/V 或更高的限流电阻，将电容器的充放电电流限制在规定的范围内。

当多个薄膜电容器并联进行耐压或寿命测试时，须为每个电容器串联一个 20Ω/V~1000Ω/V 或更高的限流电阻。

6、表面温升（△T）

6.1 当电容器用于交流或脉冲场合，由于损耗的存在，流经电容器的电流会使得电容器发热，如果发热量过大，会导致电容器短路甚至燃烧。因此流经电容器的电流不能超过产品目录所规定的最大数值。因此，监测负载时的电容器的表面温升就显得非常必要。

6.2 测量电容器表面温升的方法如图 1，被测试电容器必须施加交流(工作频率)、脉冲电压

5. Charging and discharging of the capacitor

The charge and discharge current depends on the product of voltage change rate (dV/dt) and capacitance, so low voltage charge and discharge may also cause deterioration of capacitor due to sudden charge and discharge current. While performing charge and discharge, please connect a resistance of 20Ω/V~1000Ω/V or more in series to limit the current.

When connecting few capacitors in parallel for high voltage test or endurance test, please connect a resistance of 20Ω/V~1000Ω/V or more in series to each capacitor.

6. Surface overtemperature

6.1 When capacitor is used in A.C. or pulse applications the current that flows though the capacitor make it heat up. If the capacitor heats up too much it might deteriorate and cause a short circuit or fire. It is essential that the current limits described in the catalogue are not allowed to exceed, so the temperature measuring on surface of the capacitor is necessary to ensure it is not overload.

6.2 Method for determining the surface overtemperature of the capacitor is showed in fig.1. The capacitor being tested must be supplied by A.C. or pulse voltage and frequency.

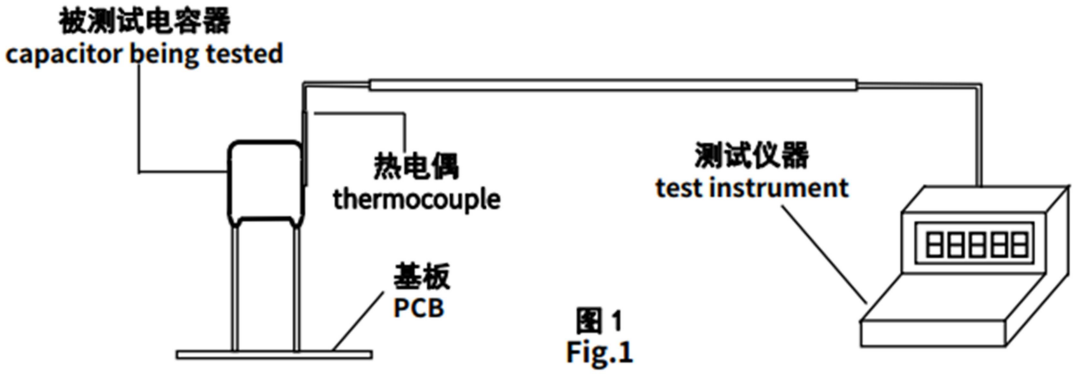
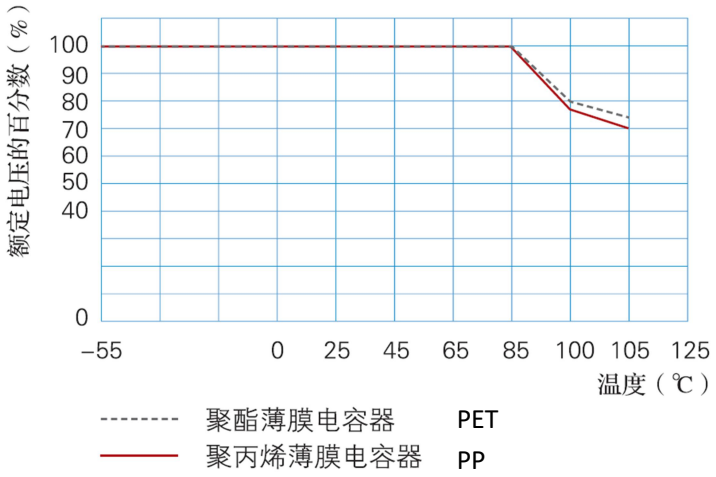


图 1
Fig.1

■电容器表面允许最大温升 **Maximum self temperature rise for all series.**



如有超出要求请联系我们的工程师。 If you need the temperature more than above, please contact our engineers.

7、阻燃性

薄膜电容器的外封装中使用了耐火阻燃材料——阻燃环氧树脂或塑料外壳，但外部的持续高温或火焰仍可使电容器芯子变形而产生外封装破裂，导致电容器芯子熔化或燃烧。

7. Passive flammability

Flame retardation epoxy resin or plastic case is used in the coating or encapsulating of film capacitor, continuous high ambient temperature or firing will break the coating layer or plastic case, and may lead to melting and firing of the capacitor element.

阻燃等级 Category	电容器体积范围 Volume range（mm^3）_ 施加火焰时间（s）Flame time				最大燃烧时间（s）Flame persistence
	体积≤250 Volume≤250	体积≤500 Volume≤500	体积≤1750 Volume≤1750	体积＞1750 Volume＞500	
A	15	30	60	120	3
B	10	20	30	60	10
C	5	10	20	30	30

8、焊接建议

为达到更好的可焊性，我们建议遵照下列的标准。

8.1 最大焊接温度

8.1.1 手工焊接

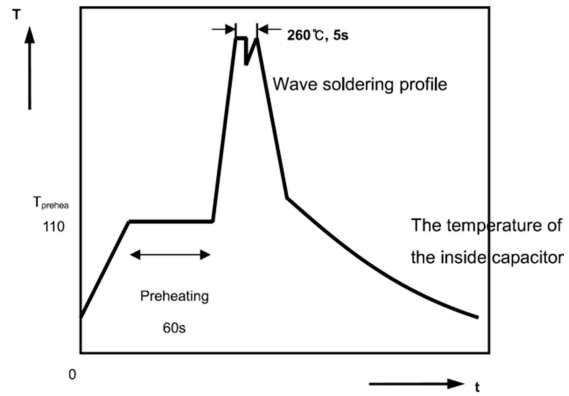
最高温度：350℃，时间 3s

8.1.2 波峰焊

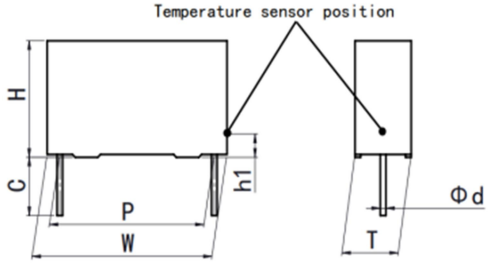
波峰焊工艺过程中有较多因素对薄膜电容器受热有影响，如：预热温度、预热时间、锡炉温度、过锡炉时间、其他热源影响等。

波峰焊接温度曲线图：

Recommended wave soldering profile



因为过热有可能会损害电容器，我们建议关注电容器最高温度以及耐热时间，用热电偶检测电容本体最高温度 Tp (测量位置参考下图)



8.Soldering suggestions

In order to obtain a good solderability, we suggest to observe thefollowing rules.

8.1Max soldering temperature

8.1.1 Manual soldering

Max. temperature:350℃, time:3s

8.1.2 Wave soldering

There are many factors affecting the heating of film capacitor during the wave soldering process, such as: preheating temperature, preheating time, soldering temperature, solderingtime, other heat sources influence and so on.

The typical soldering profile is asbelow：

Because overheating could damage the capacitor, we recommend paying attention to the maximum capacitor temperature and heatingtime, use temperature sensor to detect the maximum capacitor bodytemperature

测温点位置 Temperature snsor position(Tcapacitor body)	电容器引线外侧的外壳表面，电容距离 PCB 板高度：h1=2mm~3mm 的位置 The capacitor body surface of lead side,capacitor height Positionfrom PCB：h1=2mm~3mm		
焊接过程电容本体最高耐热温度 Maximum capacitor body temperature T_p(℃)	OPP film P≤15mm	OPP film P＞15mm	PET film
	115	120	125
焊接过程电容引脚最高耐热温度 Maximum capacitor lead wire temperature T_p(℃)	265	265	265
焊接过程电容本体最长耐热时间 Maximum capacitor body heating time tp= T_p-5℃	30s		

8.2 如果需要焊接两次，第二焊接必须等到电容器恢复到常温。

8.3 插件产品仅适合做波峰焊接。

9、储存条件

产品不能暴露在高温高湿的环境中，必须保存在以下环境：（不拆开原包装的基础上）

温度：-40~35℃

湿度：年平均值不超过 70%RH

全年任意 30 天不超过 80%RH

引线式产品储存时间（从产品包装或产品本体上的日期算起）：

散装产品：不超过 2 年

编带产品：不超过 1 年

8.2If re-working or dipping twice is necessary, it should be done after the capacitor returns to the normal temperature.

8.3 Plug parts only suitable forwave soldering.

9. Storage conditions

It should not be located in particularly high temperature and high humidity, it must submit to the following conditions（under the unchanging primal package）:

Temperature: ≤35℃

Humidity: Average per year ≤70%RH; For 30 full days randomly distributed throughout the year ≤80%RH

storage time for tinned lead wire: (from the date marked on the capacitor's body or the label glued to the package)

Bulk: not exceeding 2 years

Taping: not exceeding 1 year

六、环保产品

RoHS

日精公司的所有产品均符合 RoHS 指令和《电子信息产品污染控制管理办法》

六、Environmental-friendly products

RoHS

Nissei products in the catalogue are RoHS Compliant

七、订购须知订购或索样前，请尽可能多地提供以下信息：

额定工作电压：A.C.，D.C.；

电容量及其允许偏差：J、K、M 等；

最终产品：显示器、开关电源、照明等；

用途或电路图：直流回路、交流脉冲回路、DC-link、DC-filter、降压等；

使用条件：频率、电流、脉冲峰值、温湿度等

外形尺寸：包括电容器本体和引出端尺寸

安全性：当电容器开路或者短路时对其他部件的影响，当其他部件异常时对电容器的影响。

七、Purchase specification

When placing an order or inquiring sample, please specify the following, as much as you can

Rated voltage: A.C., D.C.

Capacitance value and capacitance tolerance: J, K, M etc.

Finished product: Monitor, Switching power, lighting.

Application or circuit diagram: DC circuit, AC pulse circuit,DC-link, DC-filter, etc.

Condition of operation: frequency, current, impulse peak, temperature and humidity.

Dimension: including body and lead space.

Safety: Influence to the other component, when the capacitor gets short or open. Influence to the capacitor, when the other

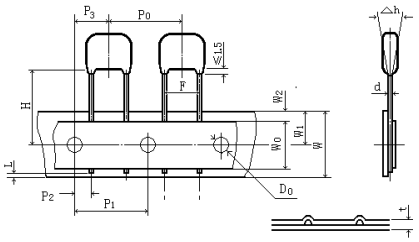
component works irregularly.

八、引线式产品包装方式

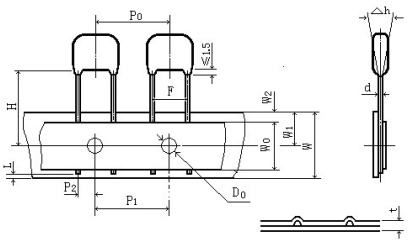
八、Packing for tinned-wire capacitor

1、编带外形图及尺寸对照表（浸渍型）

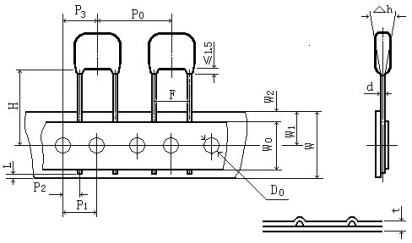
1、 Outline Drawing and Taping Dimensions(mm)（Dipped）



Pitch P=5mm/P=7.5mm



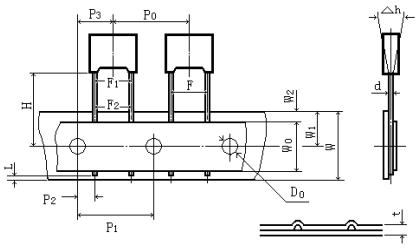
Pitch P=10.0mm



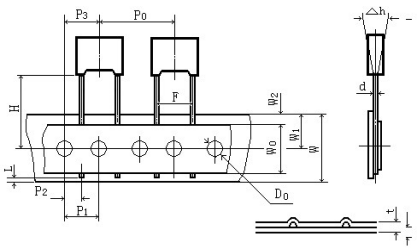
Pitch P≥15mm

符号		P_0	P_1	P_2	P_3	F	△h	W	W_0	W_1	W_2	H	D_0	t	L
误差		±1.0	±0.2	±0.5	±1.3	$\pm_{0.2}^{0.4}$	±2.0	±0.5	min	±0.5	/	±0.5	±0.2	±0.2	/
尺寸	P=5.0	12.7	12.7	3.85	6.35	5.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=7.5	12.7	12.7	2.6	6.35	7.5	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=10.0	25.4	12.7	7.7	12.7	10.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=15.0	25.4	12.7	5.2	12.7	15.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min

2、编带外形图及尺寸对照表（盒式） Outline Drawing and Taping Dimensions(mm)（Box-Tpye）



引出线间距 P=5mm/P=7.5mm

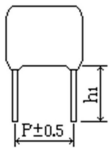
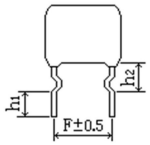
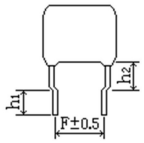
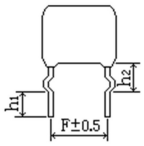
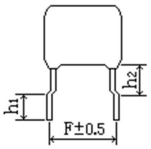


引出线间距 P≥10mm

符号		P_0	P_1	P_2	P_3	F	△h	W	W_0	W_1	W_2	H	D_0	t	L
误差		±1.0	±0.2	±0.5	±1.3	$\pm_{0.2}^{0.4}$	±2.0	±0.5	min	±0.5	/	±0.5	±0.2	±0.2	/
尺寸	P=5.0	12.7	12.7	3.85	6.35	5.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=7.5	12.7	12.7	2.6	6.35	7.5	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=10.0	25.4	12.7	7.7	12.7	10.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min
	P=15.0	25.4	12.7	5.2	12.7	15.0	0	18.0	11.0	9.0	0-3.0	18.5	4.0	0.7	0min

备注：如果需要其他形式的编带，请联系我们。 Note: If you need other taping, please contact us

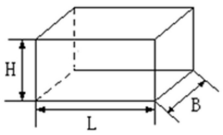
3、成形外形图 **Outline Shaping**

成形形式代码 Code of Shaping	CT 形-图① CT Shaping-Picture①	CK 形-图② CK Shaping-Picture②	CY 形-图③ CY Shaping-Picture③
成形形式图 Outline Drawings ofShaping		 (0mm≤P-F≤3mm)	 (2.5mm≤P-F≤8mm)
成形形式代码 Code of Shaping	CC 形-图④ CC Shaping-Picture④	CX 形-图⑤ CX Shaping-Picture⑤	
成形形式图 Outline Drawings of Shaping	 (0mm≤P-F≤3mm)	 (3mm<F-P≤8mm)	

备注：
P 指成形前产品引线间距　P is lead space before kink
盒式产品同样适用　box-type is also available
如需其他形式的成形，请联系我们　if you need other shaping, please contact us

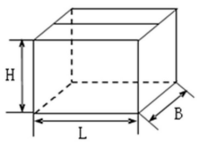
4、包装箱尺寸 **Packing in bulk**

内包装箱尺寸 **Inner packaging box**



L±5mm	可变 **Variable**
B±5mm	可变 **Variable**
H±5mm	可变 **Variable**

外包装箱尺寸 **Out packaging box**



L±5mm	可变 **Variable**
B±5mm	可变 **Variable**
H±5mm	可变 **Variable**

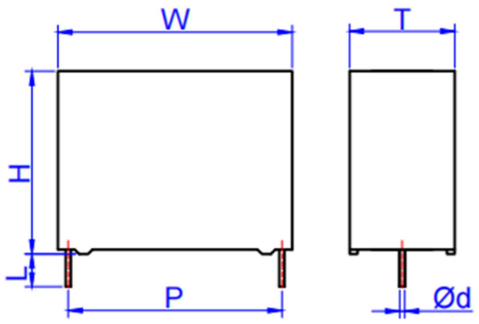
备注：包装箱尺寸根据产品的尺寸、包装的要求不同设计。
Note: The size of the packing box varies according to the product size and packaging requirements.

B01: Series/Type 系列/类型: MP1 系列 X2 类,275/310Vac

金属化聚丙烯膜抗干扰电容器（X2 类，275/310Vac）

Metallized polypropylene film interferenceSuppression capacitor(Class X2，275/310Vac)

■ 外形图 Outline Drawing



W±0.5 H±0.5 T±0.5

■ 电路结构图 Electrical Connection



■ 特点

●金属化聚丙烯
●能承受过压冲击
●优异的阻燃性能
●用于电源跨线路等抗干扰场合

■ Features

- Metallized polypropylene structure
- withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities
- Used in across-the-line, interference suppression circuit

■ 安全认证 Safety Approvals

●	CQC	CQC (中国)	GB/T6346.14-2023, X2,310Vac/305Vac/275Vac,0.010μF～4.7μF，40/110/56/B 证书号（Certificate No.）：CQC12001079110
●	10 VDE	ENEC-VDE (欧盟)	IEC 60384-14:2023,X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF，40/110/56/B 证书号（Certificate No.）：40041628
●	cULus	UL/CUL (美国/加拿大)	UL 60384-14:2009,CSA E60384-14:09,X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF， 40/110/56/B 证书号（Certificate No.）：E351313
●		KC (韩国)	KC60384-14(2015-09), X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF, 40/110/56/B 证书号（Certificate No.）SU03052-11001，11002,11003，19001,19002

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■ 技术要求 Specifications

气候类别 / 阻燃等级 Climatic Category/Passive Flammability Category	40/110/56/B		
工作温度范围 Operating Temperature Range	-40℃ ~ +110℃		
额定电压 Rated Voltage (U_R)	275/310Vac, 50/60Hz		
最大连续直流电压 Maximum continuous DC voltage	630Vdc		
电容量范围 Capacitance Range	0.010μF ~ 4.7μF		
电容量偏差 Capacitance Tolerance	±10%(K), ±20%(M)		
耐电压 Voltage Proof	引线之间 Between Terminals:	4.3U_R(Vdc), 2s	
	极壳之间 Between Terminals To Case:	2 120Vac, 1min	
绝缘电阻 Insulation Resistance	R ≥ 15 000MΩ, C_N ≤ 0.33μF RC_N ≥5000s,C_N >0.33μF (20℃ ,100V, 1min)		
损耗角正切 Dissipation Factor(tanδ)	0.0010μF ≤ C_N < 0.010μF	≤ 10 x 10^{-4}(1kHz,20℃)	≤ 20 x 10^{-4}(10kHz,20℃)
	0.010μF ≤ C_N < 0.47μF	≤ 20 x 10^{-4}(1kHz,20℃)	≤ 20 x 10^{-4}(10kHz,20℃)
	0.47μF ≤ C_N ≤ 1.0μF	≤ 20 x 10^{-4}(1kHz,20℃)	≤ 40 x 10^{-4}(10kHz,20℃)
	1.0μF < C_N ≤ 10.0μF	≤ 30 x 10^{-4}(1kHz,20℃)	----------
	10.0μF < C_N ≤ 50.0μF	≤ 40 x 10^{-4}(1kHz,20℃)	----------

注:

1.推荐用于电网额定电压不超过 250VAC 场合；Recommend for max rated supply mains voltage 250Vacapplication；

2.如果需要用到承载一定纹波电流场合，建议选用专用的滤波电容器；如有疑问，请与我司技术工程师联系；

Ifusedinapplicationwhichhasripplecurrentapplied,recommendtouseACfilterseries；If have any questions please contact our technical engineer for moredetail;

3.若用于户外或长期湿度较大场合，建议选用防潮设计。For outdoor or severe humidity condition application, recommend to use THBseries.

■ 产品编码说明 Part number system

21 位产品代码如下：
The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	1			0	3	1	0	K	1	0	4	D	0	1	5	0	0	0	0

第 1~3 位 型号代码 MP1	Digit 1 to 3 Series code MP1
第 4 位 引线加工代码 C：	Digit 4 Lead form code C
短脚 S：	Short legs
直引线编代码 V：K 脚编带品	Straight lead code V: K Taping
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码 0310:310Vac 0275:275Vac	Digit Rated voltage code 0310: 310Vac 0275:275Vac
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 104=10×10^4pF=0.1μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 10=10.0mm，15=15.0mm， 22=22.5mm，27=27.5mm	Digit Pitch 10=10.0mm，15=15.0mm， 22=22.5mm，27=27.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0035=3.5mm	Digit Lead length 0000= long lead min15mm，0035=3.5mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

标准型 Standard version

310Vac/275Vac#						
CN（μF）	W	H	T	P	d	Part number
0.010	13	9	4	10	0.6	MP1　0310K103D8100000
0.012	13	9	4	10	0.6	
0.015	13	9	4	10	0.6	
0.018	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	
0.027	13	9	4	10	0.6	
0.039	13	9	4	10	0.6	
0.047	13	11	5	10	0.6	
0.056	13	11	5	10	0.6	
0.068	13	12	6	10	0.6	
0.082	13	12	6	10	0.6	
0.10	13	12	6	10	0.6	
0.12	13	13	7	10	0.6	
0.15	13	13	7	10	0.6	
0.18	13	14	8	10	0.6	
0.22	13	14	8	10	0.6	
0.010	18	10	4	15	0.6	
0.012	18	10	4	15	0.6	
0.015	18	10	4	15	0.6	
0.018	18	10	4	15	0.6	
0.022	18	10	4	15	0.6	
0.027	18	10	4	15	0.6	
0.033	18	10	4	15	0.6	
0.039	18	10	4	15	0.6	
0.047	18	10	4	15	0.6	
0.056	18	10	4	15	0.6	
0.068	18	10	4	15	0.6	
0.082	18	10	4	15	0.6	
0.10	18	11	5	15	0.6	
0.12	18	12	6	15	0.6	
0.15	18	12	6	15	0.6	
0.18	18	13.5	7.5	15	0.6	
0.22	18	13.5	7.5	15	0.6	
0.27	18	14.5	8.5	15	0.6	
0.33	18	14.5	8.5	15	0.8	
0.39	18	15.5	9.5	15	0.8	
0.47	18	16	10	15	0.8	
0.56	18	19	11	15	0.8	
0.60	18	19	11	15	0.8	
0.68	18	19	11	15	0.8	

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310Vac/275Vac#						
CN（μF）	W	H	T	P	d	Part number
0.82M	18	19	11	15	0.8	MP1　0310K824D8150000
0.15	26.5	15	6	22.5	0.8	
0.18	26.5	15	6	22.5	0.8	
0.22	26.5	15	6	22.5	0.8	
0.27	26.5	15	6	22.5	0.8	
0.33	26.5	15	6	22.5	0.8	
0.39	26.5	16	7	22.5	0.8	
0.47	26.5	16	7	22.5	0.8	
0.56	26.5	17	8.5	22.5	0.8	
0.60	26.5	17	8.5	22.5	0.8	
0.68	26.5	17	8.5	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	18.5	10	22.5	0.8	
1.2	26.5	20	11	22.5	0.8	
1.5	26.5	22	12	22.5	0.8	
1.8	26.5	24.5	15.5	22.5	0.8	
1.8	26	25	15	22.5	0.8	
2.2	26.5	24.5	15.5	22.5	0.8	
2.2	26	25	15	22.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	18	9	27.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.2	30	20	11	27.5	0.8	
1.5	30	22	13	27.5	0.8	
1.8	32	22	13	27.5	0.8	
2.2	32	24.5	15.0	27.5	0.8	
2.2	32	25	13	27.5	0.8	
2.2	32	28	14	27.5	0.8	
2.7	32	28	14	27.5	0.8	
3.3	32	28	17	27.5	0.8	
3.3	32	30	15	27.5	0.8	
3.3	32	30	16	27.5	0.8	
3.9	32	33	18	27.5	0.8	
4.7	32	33	18	27.5	0.8	
4.7	32	37	22	27.5	0.8	

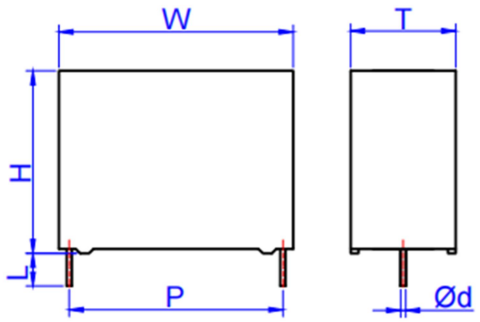
B02: Series/Type 系列/类型: MP1 系列 X2 类,275/310Vac,THB 防潮系列

MP1 系列金属化聚丙烯膜抗干扰电容器（X2 类，275Vac/310Vac,THB 防潮系列）

MP1 Series Metallized polypropylene film interference Suppression capacitor

(Class X2， 275Vac/305Vac,Temperature Humidity Bias(THB) series)

■ 外形图 Outline Drawing



W±0.5 H±0.5 T±0.5

■ 电路结构图 Electrical Connection



■ 特点

- 金属化聚丙烯
- 能承受过压冲击
- 优异的阻燃性能
- 用于电源跨线路等抗干扰场合

■ Features

- Metallized polypropylene structure
- withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities
- Used in across-the-line,interference suppression circuit

■ 安全认证 Safety Approvals

●	CQC	CQC (中国)	GB/T6346.14-2023, X2,310Vac/305Vac/275Vac,0.010μF～4.7μF，40/110/56/B 证书号（Certificate No.）：CQC12001079110
●	10 VDE	ENEC-VDE (欧盟)	IEC 60384-14:2023,X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF，40/110/56/B 证书号（Certificate No.）：40041628
●	cULus	UL/CUL (美国/加拿大)	UL 60384-14:2009,CSA E60384-14:09,X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF， 40/110/56/B 证书号（Certificate No.）：E351313
●	KC	KC (韩国)	KC60384-14(2015-09), X2,310Vac/305Vac/300Vac/275Vac,0.010μF～4.7μF, 40/110/56/B 证书号（Certificate No.）SU03052-11001，11002,11003，19001,19002

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■ 技术要求 Specifications

气候类别 / 阻燃等级 Climatic Category/Passive Flammability Category	40/110/56/B		
工作温度范围 Operating Temperature Range	-40℃ ~ +110℃		
额定电压 Rated Voltage (U_R)	275/310Vac, 50/60Hz		
最大连续直流电压 Maximum continuous DC voltage	630Vdc		
电容量范围 Capacitance Range	0.010μF ~ 4.7μF		
电容量偏差 Capacitance Tolerance	±10%(K), ±20%(M)		
耐电压 Voltage Proof	引线之间 Between Terminals:	4.3U_R(Vdc), 2s	
	极壳之间 Between Terminals To Case:	2 120Vac, 1min	
绝缘电阻 Insulation Resistance	R ≥ 15 000MΩ, C_N ≤ 0.33μF RC_N ≥5000s,C_N >0.33μF (20℃ ,100V, 1min)		
损耗角正切 Dissipation Factor(tanδ)	0.0010μF ≤ C_N < 0.010μF	≤ 10 x 10^{-4}(1kHz,20℃)	≤ 20 x 10^{-4}(10kHz,20℃)
	0.010μF ≤ C_N < 0.47μF	≤ 20 x 10^{-4}(1kHz,20℃)	≤ 20 x 10^{-4}(10kHz,20℃)
	0.47μF ≤ C_N ≤ 1.0μF	≤ 20 x 10^{-4}(1kHz,20℃)	≤ 40 x 10^{-4}(10kHz,20℃)
	1.0μF < C_N ≤ 10.0μF	≤ 30 x 10^{-4}(1kHz,20℃)	----------
	10.0μF < C_N ≤ 50.0μF	≤ 40 x 10^{-4}(1kHz,20℃)	----------

注:

1.推荐用于电网额定电压不超过 250VAC 场合；Recommend for max rated supply mains voltage 250Vacapplication；

2.如果需要用到承载一定纹波电流场合，建议选用专用的滤波电容器；如有疑问，请与我司技术工程师联系；

Ifusedinapplicationwhichhasripplecurrentapplied,recommendtouseACfilterseries；If have any questions please contact our technical engineer for moredetail;

3.若用于户外或长期湿度较大场合，建议选用防潮设计。For outdoor or severe humidity condition application, recommend to use THBseries.

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	1			0	3	1	0	K	1	0	4	V	0	1	5	0	0	0	0

第 1~3 位 型号代码 MP1	Digit 1 to 3 Series code MP1
第 4 位 引线加工代码 C：	Digit 4 Lead form code C
短脚 S：	Short legs
直引线编代码 V：K 脚编带品	Straight lead code V: K Taping
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码 0310:310Vac 0275:275Vac	Digit Rated voltage code 0310: 310Vac 0275:275Vac
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 104=10×10^4pF=0.1μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 10=10.0mm，15=15.0mm，22=22.5mm，27=27.5mm	Digit Pitch 10=10.0mm，15=15.0mm，22=22.5mm，27=27.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0035=3.5mm	Digit Lead length 0000= long lead min15mm，0035=3.5mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 **Dimensions(mm)：**

耐湿型 THB version

310Vac/275Vac#						
CN（μF）	W	H	T	P	d	Part number
0.010	13	9	4	10	0.6	MP1　0310K103V8100000
0.012	13	9	4	10	0.6	
0.015	13	9	4	10	0.6	
0.018	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	
0.027	13	9	4	10	0.6	
0.039	13	9	4	10	0.6	
0.047	13	11	5	10	0.6	
0.056	13	11	5	10	0.6	
0.068	13	12	6	10	0.6	
0.082	13	12	6	10	0.6	
0.10	13	12	6	10	0.6	
0.12	13	13	7	10	0.6	
0.15	13	13	7	10	0.6	
0.18	13	14	8	10	0.6	
0.22	13	14	8	10	0.6	
0.010	18	10	4	15	0.6	
0.012	18	10	4	15	0.6	
0.015	18	10	4	15	0.6	
0.018	18	10	4	15	0.6	
0.022	18	10	4	15	0.6	
0.027	18	10	4	15	0.6	
0.033	18	10	4	15	0.6	
0.039	18	10	4	15	0.6	
0.047	18	10	4	15	0.6	
0.056	18	10	4	15	0.6	
0.068	18	10	4	15	0.6	
0.082	18	10	4	15	0.6	
0.10	18	11	5	15	0.6	
0.12	18	12	6	15	0.6	
0.15	18	12	6	15	0.6	
0.18	18	13.5	7.5	15	0.6	
0.22	18	13.5	7.5	15	0.6	
0.27	18	14.5	8.5	15	0.6	
0.33	18	14.5	8.5	15	0.8	
0.39	18	15.5	9.5	15	0.8	
0.47	18	16	10	15	0.8	
0.56	18	19	11	15	0.8	
0.60	18	19	11	15	0.8	
0.68	18	19	11	15	0.8	

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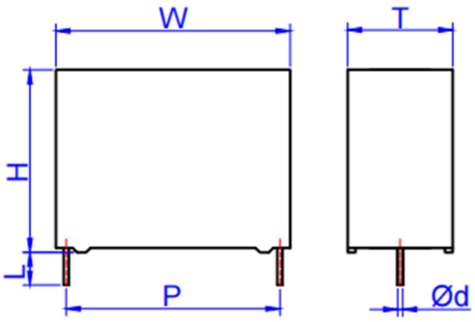
310Vac/275Vac#						
CN（μF）	W	H	T	P	d	Part number
0.82M	18	19	11	15	0.8	MP1　0310K824V8150000
0.15	26.5	15	6	22.5	0.8	
0.18	26.5	15	6	22.5	0.8	
0.22	26.5	15	6	22.5	0.8	
0.27	26.5	15	6	22.5	0.8	
0.33	26.5	15	6	22.5	0.8	
0.39	26.5	16	7	22.5	0.8	
0.47	26.5	16	7	22.5	0.8	
0.56	26.5	17	8.5	22.5	0.8	
0.60	26.5	17	8.5	22.5	0.8	
0.68	26.5	17	8.5	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	18.5	10	22.5	0.8	
1.2	26.5	20	11	22.5	0.8	
1.5	26.5	22	12	22.5	0.8	
1.8	26.5	24.5	15.5	22.5	0.8	
1.8	26	25	15	22.5	0.8	
2.2	26.5	24.5	15.5	22.5	0.8	
2.2	26	25	15	22.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	18	9	27.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.2	30	20	11	27.5	0.8	
1.5	30	22	13	27.5	0.8	
1.8	32	22	13	27.5	0.8	
2.2	32	24.5	15.0	27.5	0.8	
2.2	32	25	13	27.5	0.8	
2.2	32	28	14	27.5	0.8	
2.7	32	28	14	27.5	0.8	
3.3	32	28	17	27.5	0.8	
3.3	32	30	15	27.5	0.8	
3.3	32	30	16	27.5	0.8	
3.9	32	33	18	27.5	0.8	
4.7	32	33	18	27.5	0.8	
4.7	32	37	22	27.5	0.8	

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B03:MP6 系列金属化聚丙烯膜交流电动机电容器（塑料外壳）

MP6 Series Metallized polypropylene film AC motor capacitor (Box-type)

■ 外形图 Outline Drawing



W±1.0 H±1.0 T±1.0

■ 特点■ Features

●适用于频率为 50/60Hz 交流电源供电的单相电动机启动和运转

●有自愈特性

●性能稳定，可靠性高

●Widely applied to starting and running of AC single-phase motors at 50/60Hz frequency

●Self-healing property

●Extremely stable performance and rliability

■ 安全认证 Safety Approvals

●	cqc	CQC (GB/T 3667.1)	250VAC~450VAC、50Hz/60Hz、S0 容量范围 1μF～20μF
●	VDE	VDE (EN60252-1)	250VAC~450VAC、50Hz/60Hz、S0 容量范围 1μF～20μF
●	cULus	UL/CUL (UL810) (C22.2 NO.190)	Protected 10000AFC 85℃max 450VACmax 50Hz/60Hz
●	TUV	TUV (EN60252-1)	200VAC~450VAC、50Hz/60Hz、S0 容量范围 0.1μF～20μF

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■ 技术要求 Specifications

气候类别 Climatic Category	25/70/21；40/70/21；25/80/21；25/85/21；40/85/21
额定电压 Rated Voltage (Un)	250VAC～450VAC（50/60Hz）
额定电流 Rated current	$2\times\pi\times Fn\times Cn\times Un\times 10^{-6}$
电容量范围 Capacitance Range	1μF ~ 20μF
电容量偏差 Capacitance Tolerance	±5%
耐电压 Voltage Proof	两极之间 Between Terminals:2Un/60s
	极与壳之间 Between Terminals and
最高运行电压 Maximum permissible voltage	1.1Un
最高运行电流 Maximum permissible current	1.3In
运行等级 Class of operation	10 000h(ClassB)、3000h(ClassC)
安全防护等级 Class of safety Protection	S0
绝缘电阻 Insulation Resistance(IRxCN)	≥ 3000s(20℃,100V,1min)
损耗角正切 Dissipation Factor(tanδ)	具体产品具体要求（100Hz）

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	6			0	2	5	0	K	1	0	5	D	0	2	7	0	0	0	0

第 1~3 位 型号代码 MP6	Digit 1 to 3 Series code MP6
第 4 位 引线加工代码 C：短脚，	Digit 4 Lead form code C
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码	Digit Rated voltage code
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 105=10×10^5pF=1.0μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm	Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm	Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

250Vac						
C_N（μF）	W	H	T	P	d	Part number
0.5	32	17	9	27.5	0.8	MP6 0250K504D02700000
0.82	32	17	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.5	32	20	11	27.5	0.8	
2.0	32	20	11	27.5	0.8	
2.5	32	22	13	27.5	0.8	
3.0	32	24.5	15	27.5	0.8	
3.5	32	24.5	15	27.5	0.8	
4.0	32	28	17	27.5	0.8	
4.5	32	28	17	27.5	0.8	
5.0	32	28	17	27.5	0.8	
1.0	36	20	10	32.5	1.0	
1.5	36	20	10	32.5	1.0	
2.0	36	23	13	32.5	1.0	
2.5	36	23	13	32.5	1.0	
2.8	36	23	13	32.5	1.0	
3.0	36	27	14	32.5	1.0	
3.3	36	27	14	32.5	1.0	
3.5	36	27	14	32.5	1.0	
4.0	36	27	14	32.5	1.0	
4.5	36	30.5	18.8	32.5	1.0	
5.0	36	30.5	18.8	32.5	1.0	
5.5	36	30.5	18.8	32.5	1.0	
6.0	36	30.5	18.8	32.5	1.0	
6.5	36	33	18	32.5	1.0	
7.0	36	33	18	32.5	1.0	
7.5	36	36	20	32.5	1.0	
8.0	36	36	20	32.5	1.0	
9.0	36	36	20	32.5	1.0	
450Vac						
C_N（μF）	W	H	T	P	d	Part number
0.68	30	20	11	27.5	0.8	MP6 0450K684D0270000
1.0	32	22	13	27.5	0.8	
1.2	32	25	13	27.5	0.8	
1.4	32	25	13	27.5	0.8	
1.4	30.5	26.5	12.5	27.5	0.8	
1.5	32	24.5	15	27.5	0.8	
1.6	32	26	14	27.5	0.8	
1.8	32	27	15	27.5	0.8	
2.0	32	27	16	27.5	0.8	

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450Vac						
C_N（μF）	W	H	T	P	d	Part number
2.5	32	28	18	27.5	0.8	MP6　0450K225D0270000
2.8	32	30	18	27.5	0.8	
3.0	32	30	20	27.5	0.8	
3.5	32	31	21	27.5	0.8	
4.0	32	34	22	27.5	0.8	
1.0	36	22.5	12	32.5	1.0	
1.2	36	23	13	32.5	1.0	
1.4	36	23	13	32.5	1.0	
1.5	36	24.5	14	32.5	1.0	
1.8	36	26	14	32.5	1.0	
2.0	36	37	14	32.5	1.0	
2.5	36	28	16	32.5	1.0	
2.8	36	28	18	32.5	1.0	
3.0	36	30.5	18.8	32.5	1.0	
3.5	36	30.5	18.8	32.5	1.0	
4.0	36	34	22	32.5	1.0	
4.5	36	34	22	32.5	1.0	
5.0	36	36	24	32.5	1.0	
5.5	36	38	22	32.5	1.0	
6.0	36	38	24	32.5	1.0	
6.3	36	38	24	32.5	1.0	
6.5	36	38	26	32.5	1.0	
7.0	36	39	27	32.5	1.0	
0.10	26.5	16	7	22.5	0.8	
0.12	26.5	17	8.5	22.5	0.8	
0.14	26.5	18.5	10	22.5	0.8	
0.15	26.5	18.5	10	22.5	0.8	
0.18	26.5	18.5	10	22.5	0.8	
0.22	26.5	20	11	22.5	0.8	
0.27	26.5	22	12	22.5	0.8	
0.5	32	20	11	27.5	0.8	
1.0	32	22	11	27.5	0.8	
1.2	32	22	13	27.5	0.8	
1.4	32	25	13	27.5	0.8	
1.5	32	25	13	27.5	0.8	
1.6	32	25	13	27.5	0.8	
1.8	32	28	14	27.5	0.8	
2.0	32	28	14	27.5	0.8	
2.2	32	28	14	27.5	0.8	
2.5	32	28	17	27.5	0.8	
2.8	32	28	17	27.5	0.8	
3.0	32	30	18	27.5	0.8	
3.5	32	33	18	27.5	0.8	

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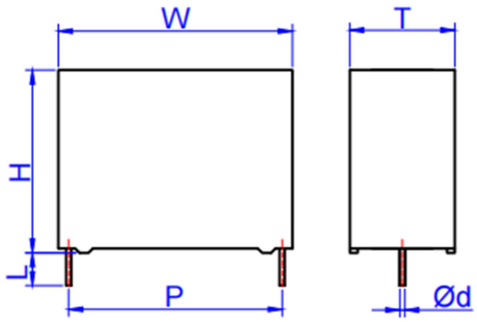
450Vac						
C_N（μF）	W	H	T	P	d	Part number
4.0	32	32	20	27.5	0.8	MP6　0450K405D0270000
1.0	36	20	10	32.5	1.0	
1.2	36	22	11	32.5	1.0	
1.4	36	22	11	32.5	1.0	
1.5	36	22	11	32.5	1.0	
1.6	36	23	13	32.5	1.0	
1.8	36	23	13	32.5	1.0	
2.0	36	23	13	32.5	1.0	
2.2	36	27	14	32.5	1.0	
2.5	36	27	14	32.5	1.0	
2.8	36	29	14	32.5	1.0	
3.0	36	29	14	32.5	1.0	
3.5	36	28	18	32.5	1.0	
4.0	36	30.5	18.8	32.5	1.0	
4.5	36	33	18	32.5	1.0	
5.0	36	32	20	32.5	1.0	
5.5	36	34	20	32.5	1.0	
6.0	36	34	22	32.5	1.0	
6.3	36	36	22	32.5	1.0	
6.5	36	36	22	32.5	1.0	
7.0	36	36	24	32.5	1.0	
7.5	36	38	24	32.5	1.0	
8.0	36	38	26	32.5	1.0	
8.5	36	38	26	32.5	1.0	
2.0	41	24	13	37.5	1.0	
2.2	41	24	13	37.5	1.0	
2.5	41	26	15	37.5	1.0	
2.8	41	26	15	37.5	1.0	
3.0	41	26	15	37.5	1.0	
3.5	42	28	14	37.5	1.0	
4.0	41	30	16	37.5	1.0	
4.5	41	32	17	37.5	1.0	
5.0	41	30.5	18.5	37.5	1.0	
5.5	41	33.5	18.5	37.5	1.0	
6.0	41	33.5	18.5	37.5	1.0	
6.3	41	34	20	37.5	1.0	
6.5	41	34	20	37.5	1.0	
7.0	41	37	22	37.5	1.0	
7.5	41	37	22	37.5	1.0	
8.0	41	37	22	37.5	1.0	
8.5	42	36	23	37.5	1.0	
9.0	41	37.5	27.5	37.5	1.0	
9.5	41	38	26	37.5	1.0	

B04: Series/Type 系列/类型:MP6 (X)系列

MP6 系列安全等级 S3 的金属化聚丙烯膜交流电动机电容器（塑料外壳）

MP6 Series Safety class S3 Metallized polypropylene film AC motor capacitor (Box-type)

■ 外形图 Outline Drawing



W±1 H±1 T±1

■ 特点

- 适用于频率为 50/60Hz 交流电源供电的单相电动机启动和运转
- 有自愈特性
- 性能稳定，可靠性高
- 安全膜膜设计，达到 S3 安全防护等级

■ Features

- Widely applied to starting and running of AC single-phase motors at 50/60Hz frequency
- Self-healing property
- Extremely stable performance and rliability
- Safety Class S3,with segmented film designing

■ 安全认证 Safety Approvals

●	CQC	CQC (GB/T 3667.1)	350VAC~450VAC、50Hz/60Hz、S3 容量范围 0.4μF～20μF
●	cULus	UL/CUL (UL810) (C22.2 NO.190)	Protected 10000AFC 85℃max 450VACmax 50Hz/60Hz
●	VDE	VDE (EN60252-1)	180VAC~450VAC、50Hz/60Hz、S3 容量范围 0.4μF～12μF
●	TUV	TUV (EN60252-1)	200VAC~450VAC、50Hz/60Hz、S3 容量范围 0.4μF～20μF

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■ 技术要求 Specifications

气候类别 Climatic Category	25/70/21；40/70/21；25/85/21；40/85/21
额定电压 Rated Voltage (Un)	200VAC～450VAC（50/60Hz）
额定电流 Rated current	$2\times\pi\times Fn\times Cn\times Un\times10^{-6}$
电容量范围 Capacitance Range	0.4μF ~ 20μF
电容量偏差 Capacitance Tolerance	±5%
耐电压 Voltage Proof	两极之间 Between Terminals:2Un/60s
	极与壳之间 Between Terminals and case: 2Un+1000VAC(≥2000VAC/60s)
最高运行电压 Maximum permissible voltage	1.1Un
最高运行电流 Maximum permissible current	1.3In
运行等级 Class of operation	30 000h(ClassA),10 000h(ClassB),3000h(ClassC)
安全防护等级 Class of safety Protection	S3
绝缘电阻 Insulation Resistance(IRxCN)	≥ 3000s(20℃,100V,1min)
损耗角正切 Dissipation Factor(tanδ)	具体产品具体要求（100Hz）
注：	

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	6			0	2	5	0	K	1	0	5	X	0	2	7	0	0	0	0

第 1~3 位 型号代码 MP6

第 4 位 引线加工代码 C：短脚，

第 5 位 内部码

第 6~9 位 额定电压代码

第 10 位 容量偏差 K=±10%, M=±20%

第 11~13 位 标称容量 105=10×10^{5}pF=1.0μF

第 14~15 位 标准品外壳及尺寸识别码

第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm

第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm

Digit 1 to 3 Series code MP6

Digit 4 Lead form code C

Digit Internal use

Digit Rated voltage code

Digit Capacitance tolerance K=±10%, M=±20%

Digit Rated capacitance value

Digit Standard product casing and size identification code

Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm

Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

NISSEI

■ 外形尺寸 Dimensions(mm)：

450Vac						
C_N（μF）	W	H	T	P	d	Part number
0.5	32	20	11	27.5	0.8	MP6　0450K505X0270000
1.0	32	23	13	27.5	0.8	
1.2	32	24	14	27.5	0.8	
1.4	32	25	15	27.5	0.8	
1.5	32	26	16	27.5	0.8	
1.6	32	26	16	27.5	0.8	
1.8	32	27	17	27.5	0.8	
2.0	32	28	18	27.5	0.8	
2.2	32	29	19	27.5	0.8	
2.5	32	30	20	27.5	0.8	
2.8	32	31	21	27.5	0.8	
3.0	32	32	22	27.5	0.8	
3.5	32	34	24	27.5	0.8	
4.0	32	35	25	27.5	0.8	
1.0	36	23	13	32.5	1.0	
1.2	36	23	13	32.5	0.8	
1.2	36	23.5	13.5	32.5	1.0	
1.4	36	24.5	14	32.5	1.0	
1.5	36	23	13	32.5	0.8	
1.5	36	24.5	14	32.5	1.0	
1.6	36	25	15	32.5	1.0	
1.8	36	26	16	32.5	1.0	
2.0	36	27	17	32.5	1.0	
2.2	36	29	17	32.5	1.0	
2.5	36	30.5	18.8	32.5	1.0	
2.8	36	30.5	18.8	32.5	1.0	
3.0	36	28	18	32.5	0.8	
3.0	36	30	20	32.5	1.0	
3.5	36	33	21	32.5	1.0	
4.0	36	34	22	32.5	1.0	
4.5	36	36	24	32.5	1.0	
5.0	36	37	25	32.5	1.0	
5.5	36	38	26	32.5	1.0	
6.0	36	39	27	32.5	1.0	
6.3	36	40	28	32.5	1.0	
6.5	36	40	28	32.5	1.0	
7.0	36	42	28	32.5	1.0	
7.5	36	42	30	32.5	1.0	
8.0	36	44	30	32.5	1.0	
8.5	36	44	32	32.5	1.0	

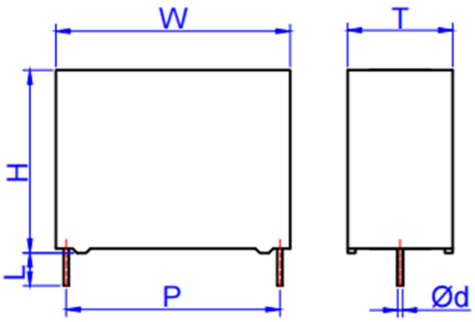
NISSEI

B05: Series/Type 系列/类型:BMC 系列

BMC 系列金属化聚酯膜电容器（盒式）

BMC Series Metallized polyester film capacitor(Box-type)

■外形图　Outline Drawing



W±0.5　H±0.5　T±0.5

■ 特点

●可靠性高

●金属化聚酯膜，无感卷绕结构

●塑料外壳（UL94/V-0），阻燃环氧填充

■ Features

● High reliability

● Metallized polyester film,non-inductive wound construction

● Plastic case（UL94/V-0）,epoxy resin sealing

■ 主要用途

●旁路，隔直，耦合，退耦

●脉冲，逻辑，定时，振荡电路

■ Typical application

● By-passing,blocking,coupling,decoupling

● Pulse,logic,timing,oscillator circuits

NISSEI

■ 技术要求 Specifications

<table>
<tr><td>引用标准 Reference Standard</td><td colspan="4">GB/T 7332(IEC60384-2)</td></tr>
<tr><td>气候类别 Climatic Category</td><td colspan="4">55/105/56</td></tr>
<tr><td>额定温度 Rated temperature</td><td colspan="4">85℃</td></tr>
<tr><td>工作温度范围 Operating Teperature Range</td><td colspan="4">-55℃~+105℃
(+85℃ to +105℃：decreasing factor factor 1.25% per ℃ for U_R)</td></tr>
<tr><td>额定电压 Rated Voltage(U_R)</td><td colspan="4">63V,100V,160V,250V,400V,630V,1000V</td></tr>
<tr><td>电容量范围 Capacitance Range</td><td colspan="4">0.01μF~10μF</td></tr>
<tr><td>电容量偏差 Capacitance Tolerance</td><td colspan="4">±5%（J），±10%（K），±20%（M）</td></tr>
<tr><td>耐电压 Voltage Proof</td><td colspan="4">1.6U_R(5s)</td></tr>
<tr><td rowspan="4">损耗角正切 Dissipation Factor(tanδ)</td><td colspan="2">测试频率 Frequency</td><td>C_N≤0.1μF</td><td>C_N＞0.1μF</td></tr>
<tr><td colspan="2">1KHz</td><td>≤1.0%</td><td>≤1.0%</td></tr>
<tr><td colspan="2">10KHz</td><td>≤1.5%</td><td>≤1.5%</td></tr>
<tr><td colspan="2">100KHz</td><td>≤3.0%</td><td>---</td></tr>
<tr><td rowspan="2">绝缘电阻 Insulation Resistance</td><td>U_R≤100V</td><td colspan="3">R≥3750MΩ，C_N≤ 0.33μF
RC_N≥1250s，　C_N>0.33μF　(20℃ ,10V, 1min)</td></tr>
<tr><td>U_R＞100V</td><td colspan="3">R≥30000MΩ，C_N≤ 0.33μF
RC_N≥10000s，　C_N>0.33μF　(20℃ ,10V, 1min)</td></tr>
<tr><td rowspan="9">最大脉冲爬升速率 Maximum Pulse Rise Time(dV/dt)：若实际工作电压 U 比额定电压 U_R 低，电容器可工作在更高的 dV/dt 场合，这样 dV/dt 允许值应为右表值乘以 U_R/U。
If the working voltage(U) is lower than the rate　voltage(U_R),the capacitor can be worked at a higher dV/dt. In this case, the maximum allowed dV/dt is obtain by multiplying the right value with U_R/U.</td><td rowspan="2">U_R
(Vdc)</td><td colspan="4">dV/dt(V/μs)</td></tr>
<tr><td>P=10.0</td><td>P=15.0</td><td>P=22.5</td><td>P=27.5</td></tr>
<tr><td>63</td><td>6</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td>100</td><td>9</td><td>5</td><td>3</td><td>2</td></tr>
<tr><td>250</td><td>20</td><td>12</td><td>8</td><td>5</td></tr>
<tr><td>400</td><td>30</td><td>20</td><td>10</td><td>7</td></tr>
<tr><td>630</td><td>40</td><td>25</td><td>12</td><td>10</td></tr>
<tr><td>1000</td><td>60</td><td>30</td><td>15</td><td>12</td></tr>
</table>

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■ 产品编码说明 Part number system

21 位产品代码如下：
The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
B	M	C			0	6	3	0	K	1	0	4	D	0	1	0	0	0	0	0

第 1~3 位 型号代码 BMC	Digit 1 to 3 Series code BMC
第 4 位 引线加工代码 C：	Digit 4 Lead form code C
短脚 S：	Short legs
直引线编代码 V：K 脚编带品	Straight lead code V: K Taping
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码 0310:310Vac 0275:275Vac	Digit Rated voltage code 0310: 310Vac 0275:275Vac
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 104=10×10^{4}pF=0.1μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 10=10.0mm，15=15.0mm，	Digit Pitch 10=10.0mm，15=15.0mm，
22=22.5mm，27=27.5mm	22=22.5mm，27=27.5mm
第 18~21 位 引线长度 0000=长脚	Digit Lead length 0000= long lead
min15mm，0035=3.5mm	min15mm，0035=3.5mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

63Vdc (40Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.1	13	9	4	10	0.6	BMC 0063K104D0100000
0.15	13	9	4	10	0.6	
0.22	13	9	4	10	0.6	
0.33	13	9	4	10	0.6	
0.47	13	9	4	10	0.6	
0.68	13	9	4	10	0.6	
1.0	13	9	4	10	0.6	
1.5	13	11	5	10	0.6	
1.8	13	12	6	10	0.6	
2.2	13	12	6	10	0.6	
0.68	18	11	5	15	0.8	
1.0	18	11	5	15	0.8	
1.5	18	11	5	15	0.8	
1.8	18	11	5	15	0.8	
2.2	18	11	5	15	0.8	
3.3	18	12	6	15	0.8	
4.7	18	13.5	7.5	15	0.8	
6.8	18	14.5	8.5	15	0.8	
10	18	19	11	15	0.8	
3.3	26.5	16	7	22.5	0.8	
4.7	26.5	16	7	22.5	0.8	
6.8	26.5	16	7	22.5	0.8	
10	26.5	17	8.5	22.5	0.8	
15	26.5	20	11	22.5	0.8	
4.7	32	18	9	27.5	0.8	
6.8	32	18	9	27.5	0.8	
10	32	18	9	27.5	0.8	
15	32	18	9	27.5	0.8	
22	32	22	13	27.5	0.8	
33	32	24.5	15	27.5	0.8	
47	32	30	16	27.5	0.8	
100Vdc (63Vac)						
0.1	13	9	4	10	0.6	BMC 0100K104D0100000
0.15	13	9	4	10	0.6	
0.22	13	9	4	10	0.6	
0.33	13	9	4	10	0.6	
0.47	13	9	4	10	0.6	
0.68	13	9	4	10	0.6	
1.0	13	11	5	10	0.6	
1.5	13	12	6	10	0.6	
0.33	18	11	5	15	0.8	

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100Vdc (63Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.47	18	11	5	15	0.8	BMC 0100K474D0150000
0.68	18	11	5	15	0.8	
1.0	18	11	5	15	0.8	
1.5	18	12	6	15	0.8	
1.8	18	12	6	15	0.8	
2.2	18	12	6	15	0.8	
3.3	18	13.5	7.5	15	0.8	
4.7	18	14.5	8.5	15	0.8	
1.5	26.5	15	6	22.5	0.8	
1.8	26.5	15	6	22.5	0.8	
2.2	26.5	15	6	22.5	0.8	
3.3	26.5	15	6	22.5	0.8	
4.7	26.5	16	7	22.5	0.8	
6.8	26.5	18.5	10	22.5	0.8	
10	26.5	22	12	22.5	0.8	
4.7	32	18	9	27.5	0.8	
6.8	32	18	9	27.5	0.8	
10	32	20	11	27.5	0.8	
15	32	20	11	27.5	0.8	
22M	32	25	13	27.5	0.8	
33	32	30	16	27.5	0.8	
250Vdc (160Vac)						
0.033	13	9	4	10	0.6	BMC 0250K333D0100000
0.047	13	9	4	10	0.6	
0.068	13	9	4	10	0.6	
0.1	13	9	4	10	0.6	
0.15	13	9	4	10	0.6	
0.22	13	11	5	10	0.6	
0.33	13	11	5	10	0.6	
0.39	13	12	6	10	0.6	
0.47	13	12	6	10	0.6	
0.1	18	11	5	15	0.8	
0.15	18	11	5	15	0.8	
0.22	18	11	5	15	0.8	
0.33	18	11	5	15	0.8	
0.47	18	11	5	15	0.8	
0.68	18	12	6	15	0.8	
1.0	18	13.5	7.5	15	0.8	
1.5	18	14.5	8.5	15	0.8	
0.22	26.5	15	6	22.5	0.8	
0.47	26.5	15	6	22.5	0.8	
0.68	26.5	15	6	22.5	0.8	
1.0	26.5	15	6	22.5	0.8	

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250Vdc (160Vac)						
C_N（μF）	W	H	T	P	d	Part number
1.5	26.5	16	7	22.5	0.8	BMC　0250K155D0220000
1.8	26.5	16	7	22.5	0.8	
2.2	26.5	17	8.5	22.5	0.8	
3.3	26.5	20	11	22.5	0.8	
1.5	32	18	9	27.5	0.8	
1.8	32	18	9	27.5	0.8	
2.2	32	18	9	27.5	0.8	
3.3	32	18	9	27.5	0.8	
4.7	32	20	11	27.5	0.8	
6.8	32	22	13	27.5	0.8	
10	32	24.5	15	27.5	0.8	
400Vdc (200Vac)						
0.01	13	9	4	10	0.6	BMC　0400K103D0100000
0.015	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	
0.033	13	9	4	10	0.6	
0.047	13	9	4	10	0.6	
0.056	13	9	4	10	0.6	
0.068	13	11	5	10	0.6	
0.1	13	11	5	10	0.6	
0.15	13	12	6	10	0.6	
0.047	18	11	5	15	0.8	
0.068	18	11	5	15	0.8	
0.1	18	11	5	15	0.8	
0.15	18	11	5	15	0.8	
0.22	18	12	6	15	0.8	
0.33	18	13.5	7.5	15	0.8	
0.47	18	14.5	8.5	15	0.8	
0.56	18	16	10	15	0.8	
0.68	18	16	10	15	0.8	
0.22	26.5	15	6	22.5	0.8	
0.33	26.5	15	6	22.5	0.8	
0.47	26.5	15	6	22.5	0.8	
0.68	26.5	16	7	22.5	0.8	
1.0	26.5	18.5	10	22.5	0.8	
1.5	26.5	22	12	22.5	0.8	
0.68	32	19	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.5	32	20	11	27.5	0.8	
1.8	32	20	11	27.5	0.8	
2.2	32	22	13	27.5	0.8	
3.3	32	24.5	15	27.5	0.8	
4.7	32	30	16	27.5	0.8	

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400Vdc (200Vac)						
C_N（μF）	W	H	T	P	d	Part number
6.8	32	33	18	27.5	0.8	BMC 0400K684D0270000
630Vdc (220Vac)						
0.0047	13	9	4	10	0.6	BMC 0630K472D0100000
0.0068	13	9	4	10	0.6	
0.01	13	9	4	10	0.6	
0.015	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	
0.033	13	11	5	10	0.6	
0.047	13	11	5	10	0.6	
0.068	13	12	6	10	0.6	
0.033	18	11	5	15	0.8	
0.047	18	11	5	15	0.8	
0.068	18	11	5	15	0.8	
0.1	18	12	6	15	0.8	
0.15	18	13.5	7.5	15	0.8	
0.22	18	16	10	15	0.8	
0.33	18	19	11	15	0.8	
0.1	26.5	15	6	22.5	0.8	
0.15	26.5	15	6	22.5	0.8	
0.22	26.5	16	7	22.5	0.8	
0.33	26.5	16	7	22.5	0.8	
0.47	26.5	17	8.5	22.5	0.8	
0.68	26.5	22	12	22.5	0.8	
0.33	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.68	32	20	11	27.5	0.8	
1.0	32	20	11	27.5	0.8	
1 000Vdc (300Vac)						
0.001	13	9	4	10	0.6	BMC 1000K102D0100000
0.0015	13	9	4	10	0.6	
0.0022	13	9	4	10	0.6	
0.0033	13	9	4	10	0.6	
0.0047	13	9	4	10	0.6	
0.0056	13	9	4	10	0.6	
0.0068	13	9	4	10	0.6	
0.01	13	9	4	10	0.6	
0.015	13	11	5	10	0.6	
0.022	13	11	5	10	0.6	
0.01	18	11	5	15	0.8	
0.015	18	11	5	15	0.8	
0.022	18	11	5	15	0.8	
0.033	18	12	6	15	0.8	
0.047	18	12	6	15	0.8	

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1 000Vdc (300Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.068	18	13.5	7.5	15	0.8	BMC 1000K682D0100000
0.1	18	14.5	8.5	15	0.8	
0.033	26.5	15	6	22.5	0.8	
0.047	26.5	15	6	22.5	0.8	
0.068	26.5	15	6	22.5	0.8	
0.1	26.5	15	6	22.5	0.8	
0.15	26.5	16	7	22.5	0.8	
0.22	26.5	17	8.5	22.5	0.8	
0.33	26.5	20	11	22.5	0.8	
0.15	32	18	9	27.5	0.8	
0.22	32	18	9	27.5	0.8	
0.33	32	20	11	27.5	0.8	
0.47	32	20	11	27.5	0.8	
0.68	32	28	14	27.5	0.8	
1.0	32	30	16	27.5	0.8	
1.5	32	37	22	27.5	0.8	

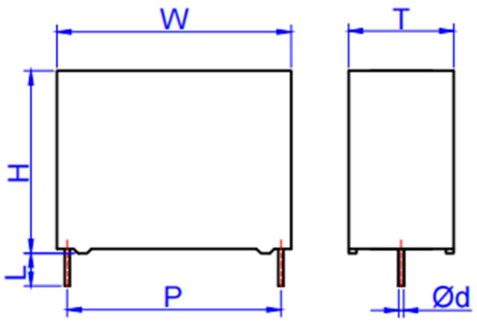
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B06: Series/Type 系列/类型:BPE 系列

BPE 系列金属化聚丙烯膜电容器（盒式）

BPE Series Metallized polypropylene filmcapacitor(Box-type)

■外形图　Outline Drawing



W±0.5　H±0.5　T±0.5

■ 特点

- 金属化聚丙烯膜
- 高频损耗小
- 内部温升小
- 塑料外壳(UL94V-0),阻燃性环氧填充

■ Features

- Metallized polypropylene film
- Low loss at high frequency
- Small inherent temperature rise
- Plastic case(UL94V-0), epoxy resin sealing

■ 主要用途

- 主要应用于高频、直流、交流和脉冲电路中
- 电视机、显示器 S 校正电路

■ Typical application

- Widely used in high frequency, DC, AC and pulse circuits
- S- correction circuitsfor TV sets and monitors

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 10190(IEC 60384-16)
气候类别 Climatic Category	55/105/56
额定温度 Rated Temperature	85℃
工作温度范围 Operating Temperature Range	-55℃ ~ 105℃ +85℃ to +105℃: decreasing factor 1.25% per ℃ for U_R
额定电压 Rated Voltage	160Vdc(90Vac),250Vdc(160Vac),400Vdc(220Vac),630Vdc(250Vac), 1000Vdc(400Vac),1600Vdc(600Vac),2000Vdc(700Vac)
电容量范围 Capacitance Range	0.01μF ~ 10.0μF
电容量偏差 Capacitance Tolerance	±2%(G),±3%(H),±5%(J),±10%(K),±20%(M)
耐电压 Voltage Proof	$1.6U_R$(5s)
损耗角正切 Dissipation Factor	≤10×10^{-4}(20℃,1kHz)
绝缘电阻 Insulation Resistance	R≥50 000MΩ，C_N≤ 0.33μF RC_N≥15 000s,C_N>0.33μF (20℃ ,100V, 1min)

最大脉冲爬升速率 Maximum pulse rise time(dV/dt):若实际工作电压 U 比额定电压 U_R 低，电容器可工作在更高的 dV/dt 场合，这样 dV/dt 允许值应为右表值乘以 U_R/U。

If the working voltage（U）is lower than the rated voltage（U_R）, the capacitor can be worked at a higher dV / dt .In this case,the maximum allowed dV / dt is obtain by multiplying the right value with U_R/U.

U_R (Vdc)	dV/dt(V/μs)					
	P=5.0	P=7.5	P=10.0	P=15.0	P=22.5	P=27.5
160	110	310	190	110	65	55
250	270	660	560	310	130	110
400	440	900	780	600	300	130
630	550	1500	1200	900	400	200
1000	--	--	2200	2000	800	--
1600	--	--	--	4500	1800	--
2000	--	--	--	9500	4500	--

NISSEI

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
B	P	E			0	6	3	0	K	1	0	4	D	9	1	5	0	0	0	0

第 1~3 位 型号代码 BPE	Digit 1 to 3 Series code BPE
第 4 位 引线加工代码 C：短脚，	Digit 4 Lead form code C
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码	Digit Rated voltage code
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 105=10×10^5pF=1.0μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm	Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm
第 18~21 位 引线长度 0000=长脚 min15mm, 0050=5.0mm	Digit Lead length 0000= long lead min15mm, 0050=5.0mm

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备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

NISSEI

■ 外形尺寸 Dimensions(mm)：

160V(90Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.082	13	9	4	10	0.6	BPE 0160K823D0100000
0.1	13	9	4	10	0.6	
0.12	13	11	5	10	0.6	
0.15	13	11	5	10	0.6	
0.18	13	11	5	10	0.6	
0.22	13	12	6	10	0.6	
0.27	13	12	6	10	0.6	
0.18	18	11	5	15	0.8	
0.22	18	11	5	15	0.8	
0.27	18	11	5	15	0.8	
0.33	18	11	5	15	0.8	
0.39	18	12	6	15	0.8	
0.47	18	12	6	15	0.8	
0.56	18	13.5	7.5	15	0.8	
0.68	18	13.5	7.5	15	0.8	
0.82	18	14.5	8.5	15	0.8	
1.0	18	16	10	15	0.8	
1.2	18	16	10	15	0.8	
1.5	18	19	11	15	0.8	
1.8	18	19	11	15	0.8	
0.47	26.5	15	6	22.5	0.8	
0.56	26.5	15	6	22.5	0.8	
0.68	26.5	15	6	22.5	0.8	
0.82	26.5	16	7	22.5	0.8	
1.0	26.5	16	7	22.5	0.8	
1.2	26.5	17	8.5	22.5	0.8	
1.5	26.5	17	8.5	22.5	0.8	
1.8	26.5	18.5	10	22.5	0.8	
2.2	26.5	20	11	22.5	0.8	
2.7	26.5	22	12	22.5	0.8	
3.3	26.5	22	12	22.5	0.8	
1.0	32	18	9	27.5	0.8	
1.2	32	18	9	27.5	0.8	
1.5	32	18	9	27.5	0.8	
1.8	32	18	9	27.5	0.8	
2.2	32	18	9	27.5	0.8	
2.7	32	20	11	27.5	0.8	
3.3	32	20	11	27.5	0.8	
3.9	32	22	13	27.5	0.8	
4.7	32	28	14	27.5	0.8	
5.6	32	24.5	15	27.5	0.8	

NISSEI

160V(90Vac)						
C_N（μF）	W	H	T	P	d	Part number
6.8	32	33	18	27.5	0.8	BPE 0160K684D0270000
8.2	32	33	18	27.5	0.8	
10	32	33	18	27.5	0.8	
12	32	37	22	27.5	0.8	
15	32	37	22	27.5	0.8	
250V(160Vac)						
0.033	13	9	4	10	0.6	BPE 0250K333D0100000
0.039	13	9	4	10	0.6	
0.047	13	9	4	10	0.6	
0.056	13	9	4	10	0.6	
0.068	13	9	4	10	0.6	
0.082	13	9	4	10	0.6	
0.1	13	11	5	10	0.6	
0.12	13	11	5	10	0.6	
0.15	13	11	5	10	0.6	
0.18	13	12	6	10	0.6	
0.22	13	12	6	10	0.6	
0.1	18	11	5	15	0.8	
0.12	18	11	5	15	0.8	
0.15	18	11	5	15	0.8	
0.18	18	11	5	15	0.8	
0.22	18	11	5	15	0.8	
0.27	18	12	6	15	0.8	
0.33	18	12	6	15	0.8	
0.39	18	13.5	7.5	15	0.8	
0.47	18	13.5	7.5	15	0.8	
0.56	18	13.5	7.5	15	0.8	
0.68	18	14.5	8.5	15	0.8	
0.82	18	16	10	15	0.8	
1.0	18	16	10	15	0.8	
1.2	18	19	11	15	0.8	
0.39	26.5	15	6	22.5	0.8	
0.47	26.5	15	6	22.5	0.8	
0.56	26.5	15	6	22.5	0.8	
0.68	26.5	15	6	22.5	0.8	
0.82	26.5	15	6	22.5	0.8	
1.0	26.5	16	7	22.5	0.8	
1.2	26.5	17	8.5	22.5	0.8	
1.5	26.5	17	8.5	22.5	0.8	
1.8	26.5	18.5	10	22.5	0.8	
2.2	26.5	20	11	22.5	0.8	
2.7	26.5	22	12	22.5	0.8	
0.82	32	18	9	27.5	0.8	

NISSEI

250V(160Vac)						
C_N（μF）	W	H	T	P	d	Part number
1.0	32	18	9	27.5	0.8	BPE 0250K105D0270000
1.2	32	18	9	27.5	0.8	
1.5	32	18	9	27.5	0.8	
1.8	32	18	9	27.5	0.8	
2.2	32	18	9	27.5	0.8	
2.7	32	20	11	27.5	0.8	
3.3	32	20	11	27.5	0.8	
3.9	32	22	13	27.5	0.8	
4.7	32	28	14	27.5	0.8	
5.6	32	24.5	15	27.5	0.8	
6.8	32	33	18	27.5	0.8	
8.2	32	33	18	27.5	0.8	
10	32	33	18	27.5	0.8	
12	32	37	22	27.5	0.8	
15	32	37	22	27.5	0.8	
400V(220Vac)						
0.015	13	9	4	10	0.6	BPE 0400K153D0100000
0.018	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	
0.027	13	9	4	10	0.6	
0.033	13	9	4	10	0.6	
0.039	13	9	4	10	0.6	
0.047	13	11	5	10	0.6	
0.056	13	11	5	10	0.6	
0.068	13	11	5	10	0.6	
0.082	13	12	6	10	0.6	
0.1	13	12	6	10	0.6	
0.068	18	11	5	15	0.8	
0.082	18	11	5	15	0.8	
0.1	18	11	5	15	0.8	
0.12	18	11	5	15	0.8	
0.15	18	12	6	15	0.8	
0.18	18	12	6	15	0.8	
0.22	18	13.5	7.5	15	0.8	
0.27	18	13.5	7.5	15	0.8	
0.33	18	14.5	8.5	15	0.8	
0.39	18	16	10	15	0.8	
0.47	18	16	10	15	0.8	
0.56	18	19	11	15	0.8	
0.68	18	19	11	15	0.8	
0.18	26.5	15	6	22.5	0.8	
0.22	26.5	15	6	22.5	0.8	
0.27	26.5	15	6	22.5	0.8	

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400V(220Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.33	26.5	15	6	22.5	0.8	BPE 0400K334D0220000
0.39	26.5	16	7	22.5	0.8	
0.47	26.5	16	7	22.5	0.8	
0.56	26.5	17	8.5	22.5	0.8	
0.68	26.5	17	8.5	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	20	11	22.5	0.8	
1.2	26.5	22	12	22.5	0.8	
1.5	26.5	22	12	22.5	0.8	
0.56	32	18	9	27.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.2	32	20	11	27.5	0.8	
1.5	32	20	11	27.5	0.8	
1.8	32	22	13	27.5	0.8	
2.2	32	14.5	15	27.5	0.8	
2.7	32	28	14	27.5	0.8	
3.3	32	33	18	27.5	0.8	
3.9	32	33	18	27.5	0.8	
4.7	32	37	22	27.5	0.8	
5.6	32	37	22	27.5	0.8	
630V(250Vac)						
0.01	13	9	4	10	0.6	BPE 0630K103D0100000
0.012	13	9	4	10	0.6	
0.015	13	9	4	10	0.6	
0.018	13	9	4	10	0.6	
0.022	13	11	5	10	0.6	
0.027	13	11	5	10	0.6	
0.033	13	11	5	10	0.6	
0.039	13	12	6	10	0.6	
0.047	13	12	6	10	0.6	
0.027	18	11	5	15	0.8	
0.033	18	11	5	15	0.8	
0.039	18	11	5	15	0.8	
0.047	18	11	5	15	0.8	
0.056	18	11	5	15	0.8	
0.068	18	12	6	15	0.8	
0.082	18	12	6	15	0.8	
0.1	18	13.5	7.5	15	0.8	
0.12	18	13.5	7.5	15	0.8	
0.15	18	13.5	7.5	15	0.8	
0.18	18	14.5	8.5	15	0.8	

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0.22	18	16	10	15	0.8	BPE 0630K224D0150000
0.27	18	19	11	15	0.8	
0.33	18	19	11	15	0.8	
630V(250Vac)						
0.082	26.5	15	6	22.5	0.8	BPE 0630K822D0220000
0.1	26.5	15	6	22.5	0.8	
0.12	26.5	15	6	22.5	0.8	
0.15	26.5	15	6	22.5	0.8	
0.18	26.5	15	6	22.5	0.8	
0.22	26.5	16	7	22.5	0.8	
0.27	26.5	17	8.5	22.5	0.8	
0.33	26.5	17	8.5	22.5	0.8	
0.39	26.5	18.5	10	22.5	0.8	
0.47	26.5	18.5	10	22.5	0.8	
0.56	26.5	20	11	22.5	0.8	
0.68	26.5	22	12	22.5	0.8	
0.33	32	18	9	27.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	20	11	27.5	0.8	
0.68	32	20	11	27.5	0.8	
0.82	32	20	11	27.5	0.8	
1.0	32	22	13	27.5	0.8	
1.2	32	24.5	15	27.5	0.8	
1.5	32	28	14	27.5	0.8	
1.8	32	33	18	27.5	0.8	
2.2	32	33	18	27.5	0.8	
2.7	32	37	22	27.5	0.8	
3.3	32	37	22	27.5	0.8	
1 000V(400Vac)						
0.01	13	12	6	10	0.6	BPE 1000K103D0100000
0.01	18	11	5	15	0.8	
0.012	18	11	5	15	0.8	
0.015	18	12	6	15	0.8	
0.018	18	12	6	15	0.8	
0.022	18	13.5	7.5	15	0.8	
0.027	18	13.5	7.5	15	0.8	
0.033	18	14.5	8.5	15	0.8	
0.039	18	16	10	15	0.8	
0.047	18	16	10	15	0.8	
0.056	18	19	11	15	0.8	
0.068	18	19	11	15	0.8	
0.018	26.5	15	6	22.5	0.8	
0.022	26.5	15	6	22.5	0.8	
0.027	26.5	15	6	22.5	0.8	

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0.033	26.5	15	6	22.5	0.8	BPE 1000K333D0220000
0.039	26.5	15	6	22.5	0.8	
0.047	26.5	16	7	22.5	0.8	
1 000V(400Vac)						
0.056	26.5	16	7	22.5	0.8	
0.068	26.5	17	8.5	22.5	0.8	
0.082	26.5	17	8.5	22.5	0.8	
0.1	26.5	18.5	10	22.5	0.8	
0.12	26.5	22	12	22.5	0.8	
0.15	26.5	22	12	22.5	0.8	
1 600V(600Vac)						
0.01	18	12	6	15	0.8	BPE 1600K103D0150000
0.012	18	12	6	15	0.8	
0.015	18	13.5	7.5	15	0.8	
0.018	18	13.5	7.5	15	0.8	
0.022	18	14.5	8.5	15	0.8	
0.027	18	16	10	15	0.8	
0.033	18	16	10	15	0.8	
0.039	18	19	11	15	0.8	
0.047	18	19	11	15	0.8	
0.015	26.5	15	6	22.5	0.8	
0.018	26.5	15	6	22.5	0.8	
0.022	26.5	15	6	22.5	0.8	
0.027	26.5	16	7	22.5	0.8	
0.033	26.5	16	7	22.5	0.8	
0.039	26.5	17	8.5	22.5	0.8	
0.047	26.5	18.5	10	22.5	0.8	
0.056	26.5	18.5	10	22.5	0.8	
0.068	26.5	22	12	22.5	0.8	
0.082	26.5	22	12	22.5	0.8	
0.1	26.5	22	12	22.5	0.8	
2 000V(700Vac)						
0.001	18	11	5	15	0.8	BPE 2000K102D0150000
0.0012	18	11	5	15	0.8	
0.0015	18	11	5	15	0.8	
0.0018	18	11	5	15	0.8	
0.0022	18	11	5	15	0.8	
0.0027	18	11	5	15	0.8	
0.0033	18	11	5	15	0.8	
0.0039	18	11	5	15	0.8	
0.0047	18	11	5	15	0.8	
0.0056	18	12	6	15	0.8	
0.0068	18	12	6	15	0.8	
0.0082	18	13.5	7.5	15	0.8	
0.01	18	13.5	7.5	15	0.8	

0.012	18	14.5	8.5	15	0.8	
0.015	18	14.5	8.5	15	0.8	
0.018	18	16	10	15	0.8	
2 000V(700Vac)						
0.022	18	19	11	15	0.8	
0.0068	26.5	15	6	22.5	0.8	
0.0082	26.5	15	6	22.5	0.8	
0.01	26.5	15	6	22.5	0.8	
0.012	26.5	15	6	22.5	0.8	
0.015	26.5	15	6	22.5	0.8	
0.018	26.5	16	7	22.5	0.8	
0.022	26.5	17	8.5	22.5	0.8	
0.027	26.5	17	8.5	22.5	0.8	
0.033	26.5	18.5	10	22.5	0.8	
0.039	26.5	18.5	10	22.5	0.8	
0.047	26.5	22	12	22.5	0.8	
0.056	26.5	22	12	22.5	0.8	

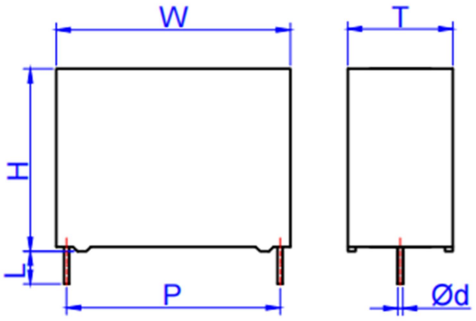
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B07:Series/Type 系列/类型:BPA 系列

BPA 系列金属化聚丙烯膜电容器（盒式 DC-filter）

BPA Series Metallized polypropylene film capacitor(Box-type DC-filter)

■外形图 Outline Drawing



W±0.5 H±0.5 T±0.5

■ 特点

●金属化聚丙烯膜

●良好的电性能

●塑料外壳（UL94V-0），阻燃环氧填充

■ Features

● Metallized polypropylene film

● Excellent electric property

● Plastic case（UL94V-0），epoxy resin sealing

■ 主要用途

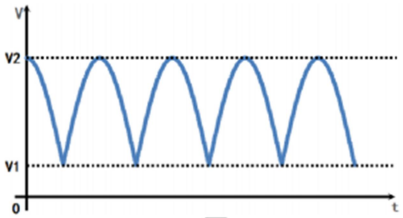
●用于开关电源、电子镇流器和变频器等中间电路直流滤波（如：DC-Link、PFC 等）

■ Typical application

● As intermediate circuit capacitors for SMPS，eletronic ballast，inverter(i.e DC-link，DC-filter and P.F.C)

备注：该系列产品只推荐用于DC-filter或DC-bolcking电路。施加在电容器上的电压必须是单向纹波电压。典型电压曲线如下参考。

a：The BPA series is only recommended to use in DC-filter or DC-blocking circuits.It means the voltage applied to the capacitors must be unidirectional ripple voltage.The typical voltage curve is as following reference.If you have any questions for this note，please feel free to contact our technical engineer.



Here: $V_1 \geqslant 0$, $V_2 \leqslant U_R$, $Vrms=(V_2-V_1) \div \sqrt{2}$, $Irms=2\pi f \times C \times (V_2-V_1) \div \sqrt{2}$

U_R is the rated voltage of the capacitor

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T10190(IEC60384-16)
气候类别 Climatic Category	40/105/56
额定温度 Rated Temperature	85℃
工作温度 Operating Temperature Range	-40℃～105℃ (+85℃ 到 +105℃: 直流电压降额系数为 1.25%/℃)
额定电压 Rated Voltage	450Vdc 、520Vdc 、630Vdc
电容量范围 Capacitance Range	0.022μF～22.0μF
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)、±20%(M) （20℃,1KHz）
耐电压 Voltage Proof	$U=1.6U_R$（20℃，5s）
绝缘电阻 Insulation Resistance	$R \geq 100000M\Omega$ ， $C_N \leq 0.33\mu F$ $_{(20℃,100V,1min)}$ $RC_N \geq 30000s$, $C_N > 0.33\mu F$
损耗角正切 Dissipation Factor	$\leq 15\times10^{-4}$(20℃,1kHz)

最大脉冲爬升速率 Maximum Pulse Rise Time(dV/dt):若实际工作电压 U 比额定电压 U_R 低，电容器可工作在更高的 dV/dt 场合。这样 dV/dt 允许值应为右表值乘以 U_R/U。
If the working voltage(U)is lower than the rated voltage(U_R),the capacitor can be worked at a higher dV/dt.In this case,the maximum allowed dV/dt is obtain by multiplying the right value withU_R/U.

U_R (Vdc)	dV/dt(V/μs) --Miniature version				dV/dt(V/μs)			
	P=10	P=15	P=22.5	P=27.5	P=10	P=15	P=22.5	P=27.5
450	100	65	35	20	300	200	100	80
520	120	80	60	40	350	220	150	100
630	200	160	70	50	400	300	180	120

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
B	P	A			0	4	5	0	K	1	0	5	D	0	1	5	0	0	0	0

第 1~3 位 型号代码 BPA
第 4 位 引线加工代码 C：短脚，
第 5 位 内部码
第 6~9 位 额定电压代码
第 10 位 容量偏差 K=±10%, M=±20%
第 11~13 位 标称容量 105=10×10^5pF=1.0μF
第 14~15 位 标准品外壳及尺寸识别码
第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm

Digit 1 to 3 Series code BPA
Digit 4 Lead form code C
Digit Internal use
Digit Rated voltage code
Digit Capacitance tolerance
Digit Rated capacitance value
Digit Standard product casing and size identification code
Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm
Digit Lead length 0000= long lead min15mm, 0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

450Vdc						
C_N（μF）	W	H	T	P	d	Part number
0.12	13	9	4	10	0.6	BPA 0450K124D0100000
0.15	13	9	4	10	0.6	
0.18	13	11	5	10	0.6	
0.22	13	11	5	10	0.6	
0.27	13	12	6	10	0.6	
0.33	13	12	6	10	0.6	
0.39	13	13	7	10	0.6	
0.47	13	13	7	10	0.6	
0.56	13	14	8	10	0.6	
0.68	13	14	8	10	0.6	
0.22	18	11	5	15	0.6	
0.33	18	11	5	15	0.6	
0.39	18	11	5	15	0.6	
0.47	18	11	5	15	0.6	
0.56	18	12	6	15	0.6	
0.68	18	12	7	15	0.6	
0.82	18	12	7	15	0.6	
1.0	18	13.5	7.5	15	0.6	
1.2	18	14	8	15	0.6	
1.5	18	16	10	15	0.8	
1.8	18	16	10	15	0.8	
2.2	18	19	11	15	0.8	
1.0	26.5	15	6	22.5	0.8	
1.2	26.5	15	6	22.5	0.8	
1.5	26.5	16	7	22.5	0.8	
1.8	26.5	16	7	22.5	0.8	
2.2	26.5	17	8.5	22.5	0.8	
2.7	26.5	17	8.5	22.5	0.8	
3.3	26.5	18.5	10	22.5	0.8	
3.9M	26.5	18.5	10	22.5	0.8	
4.7	26.5	20	11	22.5	0.8	
5.6	26.5	22	12	22.5	0.8	
6.8	26.5	14.5	15.5	22.5	0.8	
8.2	26.5	14.5	15.5	22.5	0.8	
3.3	32	18	9	27.5	0.8	
3.9M	32	18	9	27.5	0.8	
4.7	32	20	11	27.5	0.8	
5.6M	32	20	11	27.5	0.8	
6.8	32	22	13	27.5	0.8	
8.2	32	24.5	15	27.5	0.8	
10M	32	24.5	15	27.5	0.8	

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450Vdc						
12	32	28	17	27.5	0.8	
15	32	33	18	27.5	0.8	
18	32	37	22	27.5	0.8	
22	32	37	22	27.5	0.8	
520Vdc						
0.082	13	9	4	10	0.6	BPA 0520K823D0100000
0.1	13	9	4	10	0.6	
0.12	13	11	5	10	0.6	
0.15	13	11	5	10	0.6	
0.18	13	12	6	10	0.6	
0.22	13	12	6	10	0.6	
0.27	13	13	7	10	0.6	
0.33	13	13	7	10	0.6	
0.39	13	14	8	10	0.6	
0.47	13	14	8	10	0.6	
0.27	18	11	5	15	0.6	
0.33	18	11	5	15	0.6	
0.39	18	12	6	15	0.6	
0.47	18	12	6	15	0.6	
0.56	18	12	7	15	0.6	
0.68	18	13.5	7.5	15	0.6	
0.82	18	14	8	15	0.6	
1.0	18	14.5	8.5	15	0.6	
1.2	18	16	10	15	0.8	
1.5	18	19	11	15	0.8	
0.68	26.5	15	6	22.5	0.8	
0.82	26.5	15	6	22.5	0.8	
1.0	26.5	16	7	22.5	0.8	
1.2	26.5	16	7	22.5	0.8	
1.5	26.5	17	8.5	22.5	0.8	
1.8	26.5	17	8.5	22.5	0.8	
2.2	26.5	18.5	10	22.5	0.8	
2.7	26.5	18.5	10	22.5	0.8	
3.3	26.5	20	11	22.5	0.8	
3.9	26.5	22	12	22.5	0.8	
4.7	26.5	24.5	15.5	22.5	0.8	
5.6	26.5	24.5	15.5	22.5	0.8	
2.2	32	18	9	27.5	0.8	
2.7	32	18	9	27.5	0.8	
3.3	32	20	11	27.5	0.8	
3.9	32	20	11	27.5	0.8	
4.7	32	22	13	27.5	0.8	
5.6	32	22	13	27.5	0.8	
6.8	32	24.5	15	27.5	0.8	

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520Vdc						
8.2	32	28	14	27.5	0.8	
10M	32	28	17	27.5	0.8	
12	32	33	18	27.5	0.8	
15	32	37	22	27.5	0.8	
18	32	37	22	27.5	0.8	
630Vdc						
0.056	13	9	4	10	0.6	BPA 0630K563D0100000
0.068	13	9	4	10	0.6	
0.082	13	11	5	10	0.6	
0.1	13	11	5	10	0.6	
0.12	13	12	6	10	0.6	
0.15	13	12	6	10	0.6	
0.18	13	13	7	10	0.6	
0.22	13	13	7	10	0.6	
0.27	13	14	8	10	0.6	
0.33	13	14	8	10	0.6	
0.18	18	11	5	15	0.6	
0.22	18	11	5	15	0.6	
0.27	18	12	6	15	0.6	
0.33	18	12	6	15	0.6	
0.39	18	12	7	15	0.6	
0.47	18	13.5	7.5	15	0.6	
0.56	18	14	8	15	0.6	
0.68	18	14.5	8.5	15	0.6	
0.82	18	16	10	15	0.8	
1.0	18	16	10	15	0.8	
1.2	18	19	11	15	0.8	
0.47	26.5	15	6	22.5	0.8	
0.56	26.5	15	6	22.5	0.8	
0.68	26.5	16	7	22.5	0.8	
0.82	26.5	16	7	22.5	0.8	
1.0	26.5	17	8.5	22.5	0.8	
1.2	26.5	17	8.5	22.5	0.8	
1.5	26.5	18.5	10	22.5	0.8	
1.8	26.5	18.5	10	22.5	0.8	
2.2	26.5	20	11	22.5	0.8	
2.7	26.5	22	12	22.5	0.8	
3.3	26.5	24.5	15.5	22.5	0.8	
3.9	26.5	24.5	15.5	22.5	0.8	
1.8	32	18	9	27.5	0.8	
2.2	32	20	11	27.5	0.8	
2.7	32	20	11	27.5	0.8	
3.3	32	22	13	27.5	0.8	
3.9M	32	22	12	27.5	0.8	

NISSEI

630Vdc						
4.7	32	24.5	15	27.5	0.8	
5.6	32	28	17	27.5	0.8	
6.8	32	28	17	27.5	0.8	
8.2M	32	29	19	27.5	0.8	
10	32	37	22	27.5	0.8	
12	32	37	22	27.5	0.8	
450Vdc						
0.068	13	9	4	10	0.6	BPA 0450K683D0100000
0.082	13	9	4	10	0.6	
0.1	13	11	5	10	0.6	
0.12	13	11	5	10	0.6	
0.15	13	12	6	10	0.6	
0.18	13	12	6	10	0.6	
0.22	13	13	7	10	0.6	
0.27	13	13	7	10	0.6	
0.33	13	14	8	10	0.6	
0.1	18	9.5	5	15	0.6	
0.12	18	9.5	5	15	0.6	
0.15	18	11	5	15	0.6	
0.18	18	11	5	15	0.6	
0.22	18	11	5	15	0.6	
0.27	18	12	6	15	0.6	
0.33	18	12	6	15	0.6	
0.39	18	13.5	7.5	15	0.6	
0.47	18	13.5	7.5	15	0.6	
0.56	18	13.5	7.5	15	0.6	
0.68	18	16	10	15	0.8	
0.82	18	16	10	15	0.8	
1.0	18	19	11	15	0.8	
0.27	26.5	15	6	22.5	0.6	
0.33	26.5	15	6	22.5	0.6	
0.39	26.5	15	6	22.5	0.6	
0.47	26.5	15	6	22.5	0.6	
0.56	26.5	16	7	22.5	0.6	
0.68	26.5	16	7	22.5	0.6	
0.82	26.5	16	7	22.5	0.6	
1.0	26.5	17	8.5	22.5	0.8	
1.2	26.5	18.5	10	22.5	0.8	
1.5	26.5	18.5	10	22.5	0.8	
1.8	26.5	22	12	22.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	18	9	27.5	0.8	
1.2	32	18	9	27.5	0.8	

NISSEI

450Vdc						
1.5	32	18	9	27.5	0.8	
1.8	32	20	11	27.5	0.8	
2.2	32	20	11	27.5	0.8	
2.7	32	22	13	27.5	0.8	
3.3	32	22	13	27.5	0.8	
3.9	32	24.5	15	27.5	0.8	
4.7	32	33	18	27.5	0.8	
5.6	32	33	18	27.5	0.8	
6.8	32	33	18	27.5	0.8	
8.2	32	33	18	27.5	0.8	
520Vdc						
0.047	13	9	4	10	0.6	BPA 0520K473D0100000*
0.056	13	9	4	10	0.6	
0.068	13	9	4	10	0.6	
0.082	13	11	5	10	0.6	
0.1	13	11	5	10	0.6	
0.12	13	12	6	10	0.6	
0.15	13	12	6	10	0.6	
0.18	13	13	7	10	0.6	
0.22	13	13	7	10	0.6	
0.27	13	14	8	10	0.6	
0.033	18	9.5	5	15	0.6	
0.039	18	9.5	5	15	0.6	
0.047	18	11	5	15	0.6	
0.056	18	11	5	15	0.6	
0.068	18	11	5	15	0.6	
0.082	18	11	5	15	0.6	
0.1	18	11	5	15	0.6	
0.12	18	11	5	15	0.6	
0.15	18	11	5	15	0.6	
0.18	18	11	5	15	0.6	
0.22	18	12	6	15	0.6	
0.27	18	12	6	15	0.6	
0.33	18	13.5	7.5	15	0.6	
0.39	18	13.5	7.5	15	0.6	
0.47	18	14.5	8.5	15	0.8	
0.56	18	16	10	15	0.8	
0.68	18	16	10	15	0.8	
0.82	18	19	11	15	0.8	
1.0	18	19	11	15	0.8	
0.18	26.5	15	6	22.5	0.6	
0.22	26.5	15	6	22.5	0.6	
0.27	26.5	15	6	22.5	0.6	
0.33	26.5	15	6	22.5	0.6	

NISSEI

520Vdc						
0.39	26.5	16	7	22.5	0.6	
0.47	26.5	16	7	22.5	0.6	
0.56	26.5	17	8.5	22.5	0.8	
0.68	26.5	17	8.5	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	18.5	10	22.5	0.8	
1.2	26.5	22	12	22.5	0.8	
0.27	32	18	9	27.5	0.8	
0.33	32	18	9	27.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	18	9	27.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	20	11	27.5	0.8	
1.2	32	20	11	27.5	0.8	
1.5	32	22	13	27.5	0.8	
1.8	32	20	13	27.5	0.8	
2.2	32	24.5	15	27.5	0.8	
2.7	32	28	14	27.5	0.8	
3.3	32	33	18	27.5	0.8	
3.9	32	33	18	27.5	0.8	
4.7	32	33	18	27.5	0.8	
5.6	32	33	18	27.5	0.8	
6.8	32	33	18	27.5	0.8	
8.2	32	33	18	27.5	0.8	
630Vdc						
0.022	13	9	4	10	0.6	BPA 630K223D0100000
0.027	13	9	4	10	0.6	
0.033	13	9	4	10	0.6	
0.039	13	9	4	10	0.6	
0.047	13	11	5	10	0.6	
0.056	13	11	5	10	0.6	
0.068	13	11	5	10	0.6	
0.082	13	12	6	10	0.6	
0.1	13	12	6	10	0.6	
0.12	13	13	7	10	0.6	
0.15	13	13	7	10	0.6	
0.18	13	14	8	10	0.6	
0.068	18	9.5	5	15	0.6	
0.082	18	11	5	15	0.6	
0.1	18	11	5	15	0.6	
0.12	18	11	5	15	0.6	
0.15	18	12	6	15	0.6	

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630Vdc						
0.18	18	12	6	15	0.6	
0.22	18	13.5	7.5	15	0.6	
0.27	18	13.5	7.5	15	0.6	
0.33	18	14.5	8.5	15	0.8	
0.39	18	16	10	15	0.8	
0.47	18	16	10	15	0.8	
0.56	18	19	11	15	0.8	
0.68	18	19	11	15	0.8	
0.15	26.5	15	6	22.5	0.6	
0.18	26.5	15	6	22.5	0.6	
0.22	26.5	15	6	22.5	0.6	
0.27	26.5	15	6	22.5	0.6	
0.33	26.5	15	6	22.5	0.6	
0.39	26.5	16	7	22.5	0.6	
0.47	26.5	16	7	22.5	0.6	
0.56	26.5	17	8.5	22.5	0.8	
0.68	26.5	17	8.5	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	18.5	10	22.5	0.8	
1.2	26.5	22	12	22.5	0.8	
0.27	32	18	9	27.5	0.8	
0.33	32	18	9	27.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	18	9	27.5	0.8	
0.68	32	18	9	27.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	20	11	27.5	0.8	
1.2	32	20	11	27.5	0.8	
1.5	32	22	13	27.5	0.8	
1.8	32	22	13	27.5	0.8	
2.2	32	24.5	15	27.5	0.8	
2.7	32	28	14	27.5	0.8	
3.3	32	33	18	27.5	0.8	
3.9	32	33	18	27.5	0.8	

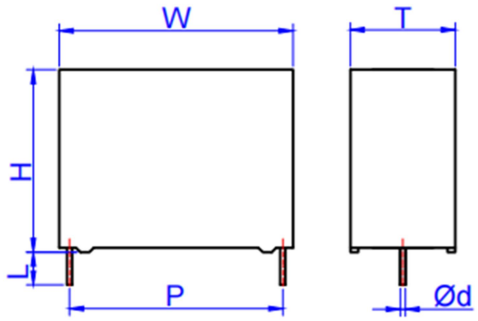
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B08: Series/Type 系列/类型:BPS 系列

BPS 系列塑料外壳双面金属化聚丙烯膜电容器

BPS Series Double sided metallized polyproplene film capacitor (Box-Type)

■ 外形图 Outline Drawing



W±0.5 H±0.5 T±0.5

■ 特点

- 双面金属化聚丙烯膜
- 损耗小，内部温升小
- 负电容量温度系数
- 优异的阻燃性能

■ Features

- Doublesided metallized polypropylene film
- Low loss and small inherent temperature rise
- Negative temperature coefficient of capacitance
- Excellent active and passive flame resistant abilities

■ 主要用途

- 广泛应用于高压高频脉冲电路中
- 电子镇流器和节能灯中
- 吸收和 SCR 整流电路

■Typical Applications

- Widely used in high voltage,high frequency and pulse circuit
- Elctronic ballasts and compact lamps
- SNUBBER and SCR commutating circuits

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 10190(IEC 60384-16)
气候类别 Climatic Category	40/105/56
额定温度 Rated Temperature	85℃ for U_R(dc);75℃ for U_R(ac)
工作温度 Operating Temperature Range	-40℃~105℃ (+85℃ to +105℃：decreasing factor 1.25% per ℃ for U_R(dc)) (+75℃ to +105℃：decreasing factor 1.35% per ℃ for U_R(ac))
额定电压 Rated Voltage	250V，400V，630V，1000V，1600V，2000V
电容量范围 Capacitance Range	0.00022μF~3.9μF
电容量偏差 Capacitance Tolerance	±2%(G)，±3%(H)，±5%(J)，±10%(K)，±20%(M)
耐电压 Voltage Proof	1.6U_R(5S)
损耗角正切 Dissipation Factor	≤10×10^{-4}（1KHZ，20℃）
绝缘电阻 Insulation Resistance	R ≥ 100 000MΩ, C_N≤ 0.33μF RC_N≥30000s,C_N>0.33μF (20℃ ,100V, 1min)

最大脉冲爬升速率 Maximum pulse rise time(dV/dt):若实际工作电压 U 比额定电压 U_R 低，电容器可工作在更高的 dV/dt 场合，这样 dV/dt 允许值应为右表值乘以 U_R/U。

If the working voltage （U）is lower than the rated voltage（U_R), the capacitor can be worked at a higher dV / dt .In this case,the maximum allowed dV / dt is obtain by multiplying the right value with U_R/U.

U_R (Vdc)	dV/dt（V/μS）				
	P=7.5	P=10.0	P=15.0	P=22.5	P=27.5
250	1200	1000	550	250	200
400	1800	1500	900	500	300
630	3200	3200	2500	1500	1000
1000	6000	6000	3300	2100	2000
1600	--	--	6000	3000	2200
2000	--	--	10000	5000	

■ 产品编码说明 Part number system

21 位产品代码如下：
The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
B	P	S			1	0	0	0	J	2	2	3	D	0	1	5	0	0	0	0

第 1~3 位 型号代码 BPS	Digit 1 to 3 Series code BPS
第 4 位 引线加工代码 C：短脚，	Digit 4 Lead form code C
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码	Digit Rated voltage code
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 105=10×10^5pF=1.0μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm	Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm	Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

250Vdc (180Vac)						
C_N（μF）	W	H	T	P	d	Part number
0.027	13	9	4	10	0.6	BPS 0250J273D0100000
0.033	13	9	4	10	0.6	
0.039	13	9	4	10	0.6	
0.047	13	11	5	10	0.6	
0.056	13	11	5	10	0.6	
0.068	13	12	6	10	0.6	
0.082	13	12	6	10	0.6	
0.068	18	11	5	15	0.8	
0.082	18	11	5	15	0.8	
0.1	18	11	5	15	0.8	
0.12	18	12	6	15	0.8	
0.15	18	12	6	15	0.8	
0.18	18	13.5	7.5	15	0.8	
0.22	18	13.5	7.5	15	0.8	
0.27	18	14.5	8.5	15	0.8	
0.33	18	16	10	15	0.8	
0.39	18	16	10	15	0.8	
0.22	26.5	15	6	22.5	0.8	
0.27	26.5	15	6	22.5	0.8	
0.33	26.5	15	6	22.5	0.8	
0.39	26.5	16	7	22.5	0.8	
0.47	26.5	16	7	22.5	0.8	
0.56	26.5	17	8.5	22.5	0.8	
0.68	26.5	18.5	10	22.5	0.8	
0.82	26.5	18.5	10	22.5	0.8	
1.0	26.5	22	12	22.5	0.8	
0.82	32	18	9	27.5	0.8	
1.0	32	20	11	27.5	0.8	
1.2	32	20	11	27.5	0.8	
1.5	32	22	13	27.5	0.8	
1.8	32	24.5	15	27.5	0.8	
2.2	32	24.5	15	27.5	0.8	
2.7	32	33	18	27.5	0.8	
3.3	32	33	18	27.5	0.8	
3.9	32	33	18	27.5	0.8	
400Vdc (250Vac)						
0.01	13	9	4	10	0.6	BPS 0400J103D0100000
0.012	13	9	4	10	0.6	
0.015	13	9	4	10	0.6	
0.018	13	9	4	10	0.6	
0.022	13	9	4	10	0.6	

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400Vdc (250Vac)						
0.027	13	11	5	10	0.6	BPS 0400J273D0100000
0.033	13	11	5	10	0.6	
0.039	13	12	6	10	0.6	
0.047	13	12	6	10	0.6	
0.033	18	11	5	15	0.8	
0.039	18	11	5	15	0.8	
0.047	18	11	5	15	0.8	
0.056	18	11	5	15	0.8	
0.068	18	12	6	15	0.8	
0.082	18	12	6	15	0.8	
0.1	18	13.5	7.5	15	0.8	
0.12	18	13.5	7.5	15	0.8	
0.15	18	14.5	8.5	15	0.8	
0.18	18	16	10	15	0.8	
0.22	18	16	10	15	0.8	
0.27	18	19	11	15	0.8	
0.12	26.5	15	6	22.5	0.8	
0.15	26.5	15	6	22.5	0.8	
0.18	26.5	15	6	22.5	0.8	
0.22	26.5	16	7	22.5	0.8	
0.27	26.5	17	8.5	22.5	0.8	
0.33	26.5	17	8.5	22.5	0.8	
0.39	26.5	18.5	10	22.5	0.8	
0.47	26.5	18.5	10	22.5	0.8	
0.56	26.5	22	12	22.5	0.8	
0.68	26.5	22	12	22.5	0.8	
0.39	32	18	9	27.5	0.8	
0.47	32	18	9	27.5	0.8	
0.56	32	20	11	27.5	0.8	
0.68	32	20	11	27.5	0.8	
0.82	32	22	13	27.5	0.8	
1.0	32	24.5	15	27.5	0.8	
1.2	32	24.5	15	27.5	0.8	
1.5	32	33	18	27.5	0.8	
1.8	32	33	18	27.5	0.8	
630Vdc (400Vac)						
0.0039	13	9	4	10	0.6	BPS 0630J392D0100000
0.0047	13	9	4	10	0.6	
0.0056	13	9	4	10	0.6	
0.0068	13	9	4	10	0.6	
0.0082	13	9	4	10	0.6	
0.01	13	11	5	10	0.6	
0.012	13	11	5	10	0.6	
0.015	13	12	6	10	0.6	

NISSEI

630Vdc (400Vac)						
0.018	13	12	6	10	0.6	BPS 0630J183D0100000
0.01	18	11	5	15	0.8	
0.012	18	11	5	15	0.8	
0.015	18	11	5	15	0.8	
0.018	18	11	5	15	0.8	
0.022	18	11	5	15	0.8	
0.027	18	11	5	15	0.8	
0.033	18	12	6	15	0.8	
0.039	18	12	6	15	0.8	
0.047	18	12	6	15	0.8	
0.056	18	13.5	7.5	15	0.8	
0.068	18	14.5	8.5	15	0.8	
0.082	18	14.5	8.5	15	0.8	
0.1	18	16	10	15	0.8	
0.12	18	19	11	15	0.8	
0.047	26.5	15	6	22.5	0.8	
0.056	26.5	15	6	22.5	0.8	
0.068	26.5	15	6	22.5	0.8	
0.082	26.5	15	6	22.5	0.8	
0.1	26.5	15	6	22.5	0.8	
0.12	26.5	16	7	22.5	0.8	
0.15	26.5	17	8.5	22.5	0.8	
0.18	26.5	17	8.5	22.5	0.8	
0.22	26.5	18.5	10	22.5	0.8	
0.27	26.5	22	12	22.5	0.8	
0.33	26.5	22	12	22.5	0.8	
0.39	26.5	22	12	22.5	0.8	
0.15	32	18	9	27.5	0.8	
0.18	32	18	9	27.5	0.8	
0.22	32	18	9	27.5	0.8	
0.27	32	18	9	27.5	0.8	
0.33	32	20	11	27.5	0.8	
0.39	32	20	11	27.5	0.8	
0.47	32	22	13	27.5	0.8	
0.56	32	22	13	27.5	0.8	
0.68	32	24.5	15	27.5	0.8	
0.82	32	28	14	27.5	0.8	
1.0	32	33	18	27.5	0.8	
1.2	32	33	18	27.5	0.8	
1 000Vdc(600Vac)						
0.001	13	9	4	10	0.6	BPS 1000J102D0100000
0.0012	13	9	4	10	0.6	
0.0015	13	9	4	10	0.6	
0.0018	13	9	4	10	0.6	

NISSEI

1 000Vdc(600Vac)						
0.0022	13	9	4	10	0.6	
0.0027	13	9	4	10	0.6	
0.0033	13	9	4	10	0.6	
0.0039	13	11	5	10	0.6	
0.0047	13	11	5	10	0.6	
0.0056	13	12	6	10	0.6	
0.0068	13	12	6	10	0.6	
0.0082	18	11	5	15	0.8	
0.01	18	11	5	15	0.8	
0.012	18	11	5	15	0.8	
0.015	18	11	5	15	0.8	
0.018	18	13.5	7.5	15	0.8	
0.022	18	13.5	7.5	15	0.8	
0.027	18	14.5	8.5	15	0.8	
0.033	18	14.5	8.5	15	0.8	
0.039	18	16	10	15	0.8	
0.047	18	19	11	15	0.8	
0.027	26.5	15	6	22.5	0.8	
0.033	26.5	15	6	22.5	0.8	
0.039	26.5	15	6	22.5	0.8	
0.047	26.5	16	7	22.5	0.8	
0.056	26.5	16	7	22.5	0.8	
0.068	26.5	17	8.5	22.5	0.8	
0.082	26.5	18.5	10	22.5	0.8	
0.1	26.5	18.5	10	22.5	0.8	
0.12	26.5	22	12	22.5	0.8	
0.15	26.5	22	12	22.5	0.8	
0.1	32	18	9	27.5	0.8	
0.12	32	20	11	27.5	0.8	
0.15	32	20	11	27.5	0.8	
0.18	32	22	13	27.5	0.8	
0.22	32	22	13	27.5	0.8	
0.27	32	24.5	15	27.5	0.8	
0.33	32	28	14	27.5	0.8	
0.39	32	33	18	27.5	0.8	
0.47	32	33	18	27.5	0.8	
1 600Vdc(650Vac)						
0.001	18	11	5	15	0.8	BPS 1000J102D0150000
0.0012	18	11	5	15	0.8	
0.0015	18	11	5	15	0.8	
0.0018	18	11	5	15	0.8	
0.0022	18	11	5	15	0.8	
0.0027	18	11	5	15	0.8	
0.0033	18	11	5	15	0.8	

NISSEI

1 600Vdc(650Vac)						
0.0039	18	11	5	15	0.8	
0.0047	18	11	5	15	0.8	
0.0056	18	11	5	15	0.8	
0.0068	18	11	5	15	0.8	
0.0082	18	12	6	15	0.8	
0.01	18	12	6	15	0.8	
0.012	18	13.5	7.5	15	0.8	
0.015	18	13.5	7.5	15	0.8	
0.018	18	14.5	8.5	15	0.8	
0.022	18	14.5	8.5	15	0.8	
0.027	18	16	10	15	0.8	
0.033	18	19	11	15	0.8	
0.015	26.5	15	6	22.5	0.8	
0.018	26.5	15	6	22.5	0.8	
0.022	26.5	15	6	22.5	0.8	
0.027	26.5	15	6	22.5	0.8	
0.033	26.5	16	7	22.5	0.8	
0.039	26.5	17	8.5	22.5	0.8	
0.047	26.5	18.5	10	22.5	0.8	
0.056	26.5	18.5	10	22.5	0.8	
0.068	26.5	22	12	22.5	0.8	
0.082	26.5	22	12	22.5	0.8	
0.039	32	18	9	27.5	0.8	
0.047	32	18	9	27.5	0.8	
0.056	32	18	9	27.5	0.8	
0.068	32	18	9	27.5	0.8	
0.082	32	20	11	27.5	0.8	
0.1	32	20	11	27.5	0.8	
0.12	32	22	13	27.5	0.8	
0.15	32	24.5	15	27.5	0.8	
0.18	32	24.5	15	27.5	0.8	
0.22	32	33	18	27.5	0.8	
0.27	32	33	18	27.5	0.8	
0.33	32	33	18	27.5	0.8	
2 000Vdc(700Vac)						
0.001	18	11	5	15	0.8	BPS 2000J102D0150000
0.0012	18	11	5	15	0.8	
0.0015	18	11	5	15	0.8	
0.0018	18	11	5	15	0.8	
0.0022	18	11	5	15	0.8	
0.0027	18	11	5	15	0.8	
0.0033	18	12	6	15	0.8	
0.0039	18	12	6	15	0.8	
0.0047	18	12	6	15	0.8	

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2 000Vdc(700Vac)						
0.0056	18	13.5	7.5	15	0.8	
0.0068	18	13.5	7.5	15	0.8	
0.0082	18	14.5	8.5	15	0.8	
0.01	18	16	10	15	0.8	
0.012	18	16	10	15	0.8	
0.015	18	19	11	15	0.8	
0.001	26.5	15	6	22.5	0.8	
0.0012	26.5	15	6	22.5	0.8	
0.0015	26.5	15	6	22.5	0.8	
0.0018	26.5	15	6	22.5	0.8	
0.0022	26.5	15	6	22.5	0.8	
0.0027	26.5	15	6	22.5	0.8	
0.0033	26.5	15	6	22.5	0.8	
0.0039	26.5	15	6	22.5	0.8	
0.0047	26.5	15	6	22.5	0.8	
0.0056	26.5	15	6	22.5	0.8	
0.0068	26.5	15	6	22.5	0.8	
0.0082	26.5	15	6	22.5	0.8	
0.01	26.5	15	6	22.5	0.8	
0.012	26.5	15	6	22.5	0.8	
0.015	26.5	16	7	22.5	0.8	
0.018	26.5	16	7	22.5	0.8	
0.022	26.5	17	8.5	22.5	0.8	
0.027	26.5	18.5	10	22.5	0.8	
0.033	26.5	18.5	10	22.5	0.8	
0.039	26.5	22	12	22.5	0.8	
0.047	26.5	22	12	22.5	0.8	
0.022	32	18	9	27.5	0.8	
0.027	32	18	9	27.5	0.8	
0.033	32	18	9	27.5	0.8	
0.039	32	20	11	27.5	0.8	
0.047	32	20	11	27.5	0.8	
0.056	32	22	13	27.5	0.8	
0.068	32	22	13	27.5	0.8	
0.082	32	24.5	15	27.5	0.8	
0.1	32	28	14	27.5	0.8	
0.12	32	33	18	27.5	0.8	
0.15	32	33	18	27.5	0.8	

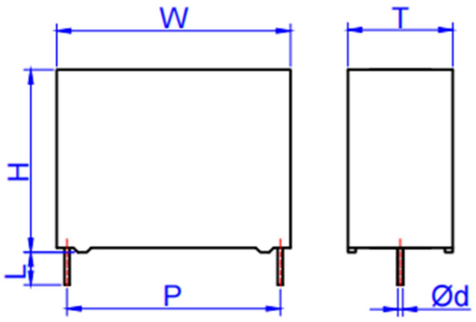
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B09:Series/Type 系列/类型:MPZ 系列

MPZ 系列金属化聚丙烯膜电容器（盒式）

MPZ Series Metallized polypropylene film capacitor (box type)

■ 外形图 Outline Drawing



W±0.5 H±0.5 T±0.5

■ 特点

- 高频损耗小
- 内部温升小，耐高温
- 塑料外壳（UL94V-0），阻燃环氧填充

■ Features

- Low loss at high frequency
- Samll inherent temperature rise,high temperature rage
- Plastic case（UL94V-0），epoxy resin sealing

■ 主要用途

- 高压、大电流的脉冲电路
- 电子照明（如电子镇流器、E-HID）
- 高频交流负荷

■ Typical application

- Pulse applications with high A.C.voltage and high current
- Electric lighting(i.e.electric ballast,E-HID)
- High-frequence A.C.loads

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T14579(IEC60384-17)			
气候类别 Climatic Category	55/125/56			
额定温度 Rated Temperature	105℃			
工作温度 Operating Temperature Range	-55℃～125℃ (+105℃ to +125℃：decreasing factor 1.25% per ℃ for U_R)			
电容量范围 Capacitance Range	0.001μF～0.15μF			
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K) （20℃,1KHz）			
耐电压 Voltage Proof	U=1.6U_R（20℃，5s）			
绝缘电阻 Insulation Resistance	≥100000MΩ（20℃，100V，1min）			
损耗角正切 Dissipation Factor	≤10×10^{-4}(20℃,1kHz)			
最大脉冲爬升速率 Maximum Pulse Rise Time(dV/dt):若实际工作电压 U 比额定电压 U_R 低，电容器可工作在更高的 dV/dt 场合。这样 dV/dt 允许值应为右表值乘以 U_R/U。 If the working voltage(U)is lower than the rated voltage(U_R),the capacitor can be worked at a higher dV/dt.In this case,the maximum allowed dV/dt is obtain by multiplying the right value withU_R/U.	U_R (Vac)	dV/dt(V/μs)		
		P=10	P=15	P=22.5
	400	2200	2000	800
	500	3000	2500	1200
	600	6000	4500	1800
	700	9000	9500	4500
	900	--	10000	6000

U_R	600Vac		700Vac		900Vac
P（mm）	≤10	＞10	10	＞10	--
Vdc（V）	1400	1600	1600	2000	2500

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Z			0	7	0	0	J	4	7	2	D	0	1	0	0	0	0	0

第 1~3 位 型号代码 MPZ	Digit 1 to 3 Series code MPZ
第 4 位 引线加工代码 C：短脚，	Digit 4 Lead form code C
第 5 位 内部码	Digit Internal use
第 6~9 位 额定电压代码	Digit Rated voltage code
第 10 位 容量偏差 K=±10%, M=±20%	Digit Capacitance tolerance
第 11~13 位 标称容量 105=10×10^5pF=1.0μF	Digit Rated capacitance value
第 14~15 位 标准品外壳及尺寸识别码	Digit Standard product casing and size identification code
第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm	Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm
第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm	Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

400Vac						
C_N（μF）	W	H	T	P	d	Part number
0.0010	10.5	9.0	4.0	7.5	0.6	MPZ 0400J102D0070000
0.0012	10.5	9.0	4.0	7.5	0.6	
0.0015	10.5	9.0	4.0	7.5	0.6	
0.0018	10.5	9.0	4.0	7.5	0.6	
0.0022	10.5	9.0	4.0	7.5	0.6	
0.0027	10.5	9.0	4.0	7.5	0.6	
0.0033	10.5	9.0	4.0	7.5	0.6	
0.0036	10.5	9.0	4.0	7.5	0.6	
0.0039	10.5	9.0	4.0	7.5	0.6	
0.0047	10.5	9.0	4.0	7.5	0.6	
0.0056	10.5	11.0	5.0	7.5	0.6	
0.0068	10.5	11.0	5.0	7.5	0.6	
0.0082	10.5	11.0	5.0	7.5	0.6	
0.010	10.5	12.0	6.0	7.5	0.6	
0.012	10.5	12.0	6.0	7.5	0.6	
0.0010	13.0	9.0	4.0	10.0	0.6	
0.0012	13.0	9.0	4.0	10.0	0.6	
0.0015	13.0	9.0	4.0	10.0	0.6	
0.0018	13.0	9.0	4.0	10.0	0.6	
0.0022	13.0	9.0	4.0	10.0	0.6	
0.0027	13.0	9.0	4.0	10.0	0.6	
0.0033	13.0	9.0	4.0	10.0	0.6	
0.0039	13.0	9.0	4.0	10.0	0.6	
0.0047	13.0	11.0	5.0	10.0	0.6	
0.0056	13.0	11.0	5.0	10.0	0.6	
0.0068	13.0	11.0	5.0	10.0	0.6	
0.0082	13.0	12.0	6.0	10.0	0.6	
0.010	13.0	12.0	6.0	10.0	0.6	
0.0022	18	11.0	5.0	15.0	0.8	
0.0027	18	11.0	5.0	15.0	0.8	
0.0033	18	11.0	5.0	15.0	0.8	
0.0039	18	11.0	5.0	15.0	0.8	
0.0047	18	11.0	5.0	15.0	0.8	
0.0056	18	11.0	5.0	15.0	0.8	
0.0068	18	11.0	5.0	15.0	0.8	
0.0082	18	11.0	5.0	15.0	0.8	
0.010	18	11.0	5.0	15.0	0.8	

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400Vac						
0.012	18	11.0	5.0	15.0	0.8	
0.015	18	12.0	6.0	15.0	0.8	
0.018	18	12.0	6.0	15.0	0.8	
0.022	18	13.5	7.5	15.0	0.8	
0.027	18	13.5	7.5	15.0	0.8	
0.033	18	14.5	8.5	15.0	0.8	
0.039	18	16.0	10.0	15.0	0.8	
0.047	18	16.0	10.0	15.0	0.8	
0.056	18	19.0	11.0	15.0	0.8	
0.068	18	19.0	11.0	15.0	0.8	
0.018	26.5	15.0	6.0	22.5	0.8	
0.022	26.5	15.0	6.0	22.5	0.8	
0.027	26.5	15.0	6.0	22.5	0.8	
0.033	26.5	15.0	6.0	22.5	0.8	
0.039	26.5	15.0	6.0	22.5	0.8	
0.047	26.5	16.0	7.0	22.5	0.8	
0.056	26.5	16.0	7.0	22.5	0.8	
0.068	26.5	17.0	8.5	22.5	0.8	
0.082	26.5	17.0	8.5	22.5	0.8	
0.10	26.5	18.5	10.0	22.5	0.8	
0.12	26.5	22.0	12.0	22.5	0.8	
0.15	26.5	22.0	12.0	22.5	0.8	
500Vac						
0.0010	10.5	9.0	4.0	7.5	0.6	MPZ 0500J102D0070000
0.0012	10.5	9.0	4.0	7.5	0.6	
0.0015	10.5	9.0	4.0	7.5	0.6	
0.0018	10.5	9.0	4.0	7.5	0.6	
0.0022	10.5	11.0	5.0	7.5	0.6	
0.0027	10.5	11.0	5.0	7.5	0.6	
0.0033	10.5	11.0	5.0	7.5	0.6	
0.0036	10.5	12.0	6.0	7.5	0.6	
0.0039	10.5	12.0	6.0	7.5	0.6	
0.0047	10.5	12.0	6.0	7.5	0.6	
0.0056	10.5	12.0	6.0	7.5	0.6	
0.0010	13.0	9.0	4.0	10.0	0.6	
0.0012	13.0	9.0	4.0	10.0	0.6	
0.0015	13.0	9.0	4.0	10.0	0.6	
0.0018	13.0	9.0	4.0	10.0	0.6	
0.0022	13.0	9.0	4.0	10.0	0.6	
0.0027	13.0	9.0	4.0	10.0	0.6	
0.0030	13.0	9.0	4.0	10.0	0.6	
0.0033	13.0	9.0	4.0	10.0	0.6	
0.0039	13.0	11.0	5.0	10.0	0.6	
0.0047	13.0	11.0	5.0	10.0	0.6	

NISSEI

500Vac						
0.0056	13.0	11.0	5.0	10.0	0.6	MPZ 0500J562D0100000
0.0068	13.0	12.0	6.0	10.0	0.6	
0.0082	13.0	12.0	6.0	10.0	0.6	
0.010	13.0	13.0	7.0	10.0	0.6	
0.012	13.0	14.0	8.0	10.0	0.6	
0.0033	18	11.0	5.0	15.0	0.8	
0.0036	18	11.0	5.0	15.0	0.8	
0.0039	18	11.0	5.0	15.0	0.8	
0.0047	18	11.0	5.0	15.0	0.8	
0.0056	18	11.0	5.0	15.0	0.8	
0.0068	18	11.0	5.0	15.0	0.8	
0.0082	18	11.0	5.0	15.0	0.8	
0.010	18	11.0	5.0	15.0	0.8	
0.012	18	12.0	6.0	15.0	0.8	
0.015	18	12.0	6.0	15.0	0.8	
0.018	18	13.5	7.5	15.0	0.8	
0.022	18	13.5	7.5	15.0	0.8	
0.027	18	13.5	7.5	15.0	0.8	
0.030	18	14.5	8.5	15.0	0.8	
0.033	18	16.0	10.0	15.0	0.8	
0.036	18	16.0	10.0	15.0	0.8	
0.039	18	16.0	10.0	15.0	0.8	
0.047	18	19.0	11.0	15.0	0.8	
0.056	18	19.0	11.0	15.0	0.8	
0.010	26.5	15.0	6.0	22.5	0.8	
0.012	26.5	15.0	6.0	22.5	0.8	
0.015	26.5	15.0	6.0	22.5	0.8	
0.018	26.5	15.0	6.0	22.5	0.8	
0.022	26.5	15.0	6.0	22.5	0.8	
0.027	26.5	15.0	6.0	22.5	0.8	
0.033	26.5	16.0	7.0	22.5	0.8	
0.036	26.5	16.0	7.0	22.5	0.8	
0.039	26.5	16.0	7.0	22.5	0.8	
0.047	26.5	17.0	8.5	22.5	0.8	
0.056	26.5	17.0	8.5	22.5	0.8	
0.068	26.5	18.5	10.0	22.5	0.8	
0.082	26.5	18.5	10.0	22.5	0.8	
0.10	26.5	22.0	12.0	22.5	0.8	
0.12	26.5	22.0	12.0	22.5	0.8	
600Vac						
0.0010	10.5	9.0	4.0	7.5	0.6	MPZ 0600J102D0070000
0.0012	10.5	9.0	4.0	7.5	0.6	
0.0015	10.5	9.0	4.0	7.5	0.6	
0.0018	10.5	11.0	5.0	7.5	0.6	

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600Vac						
0.0022	10.5	11.0	5.0	7.5	0.6	MPZ 0500J202D0070000
0.0027	10.5	11.0	5.0	7.5	0.6	
0.0033	10.5	12.0	6.0	7.5	0.6	
0.0036	10.5	12.0	6.0	7.5	0.6	
0.0039	10.5	12.0	6.0	7.5	0.6	
0.0047	10.5	12.0	6.0	7.5	0.6	
0.00056	13.0	9.0	4.0	10.0	0.6	
0.00062	13.0	9.0	4.0	10.0	0.6	
0.00068	13.0	9.0	4.0	10.0	0.6	
0.00082	13.0	9.0	4.0	10.0	0.6	
0.0010	13.0	9.0	4.0	10.0	0.6	
0.0011	13.0	9.0	4.0	10.0	0.6	
0.0012	13.0	9.0	4.0	10.0	0.6	
0.0013	13.0	9.0	4.0	10.0	0.6	
0.0015	13.0	9.0	4.0	10.0	0.6	
0.0017	13.0	9.0	4.0	10.0	0.6	
0.0018	13.0	9.0	4.0	10.0	0.6	
0.0020	13.0	9.0	4.0	10.0	0.6	
0.0022	13.0	9.0	4.0	10.0	0.6	
0.0027	13.0	9.0	4.0	10.0	0.6	
0.0030	13.0	9.0	4.0	10.0	0.6	
0.0033	13.0	9.0	4.0	10.0	0.6	
0.0036	13.0	11.0	5.0	10.0	0.6	
0.0039	13.0	11.0	5.0	10.0	0.6	
0.0047	13.0	11.0	5.0	10.0	0.6	
0.0056	13.0	11.0	5.0	10.0	0.6	
0.0082	13.0	12.0	6.0	10.0	0.6	
0.010	13.0	13.0	7.0	10.0	0.6	
0.012	13.0	14.0	8.0	10.0	0.6	
0.0010	18	11.0	5.0	15.0	0.8	
0.0012	18	11.0	5.0	15.0	0.8	
0.0015	18	11.0	5.0	15.0	0.8	
0.0018	18	11.0	5.0	15.0	0.8	
0.0022	18	11.0	5.0	15.0	0.8	
0.0027	18	11.0	5.0	15.0	0.8	
0.0033	18	11.0	5.0	15.0	0.8	
0.0039	18	11.0	5.0	15.0	0.8	
0.0047	18	11.0	5.0	15.0	0.8	
0.0056	18	11.0	5.0	15.0	0.8	
0.0068	18	11.0	5.0	15.0	0.8	
0.0082	18	12.0	6.0	15.0	0.8	
0.010	18	12.0	6.0	15.0	0.8	
0.012	18	12.0	6.0	15.0	0.8	
0.015	18	13.5	7.5	15.0	0.8	

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600Vac						
0.018	18	13.5	7.5	15.0	0.8	MPZ 0500J183D0150000
0.022	18	14.5	8.5	15.0	0.8	
0.027	18	16.0	10.0	15.0	0.8	
0.033	18	16.0	10.0	15.0	0.8	
0.039	18	19.0	11.0	15.0	0.8	
0.047	18	19.0	11.0	15.0	0.8	
0.015	26.5	15.0	6.0	22.5	0.8	
0.018	26.5	15.0	6.0	22.5	0.8	
0.022	26.5	15.0	6.0	22.5	0.8	
0.027	26.5	16.0	7.0	22.5	0.8	
0.033	26.5	16.0	7.0	22.5	0.8	
0.039	26.5	17.0	8.5	22.5	0.8	
0.047	26.5	18.5	10.0	22.5	0.8	
0.056	26.5	18.5	10.0	22.5	0.8	
0.068	26.5	22.0	12.0	22.5	0.8	
0.082	26.5	22.0	12.0	22.5	0.8	
0.10	26.5	22.0	12.0	22.5	0.8	
700Vac						
0.0010	13.0	9.0	4.0	10.0	0.6	MPZ 0700J102D0100000
0.0012	13.0	9.0	4.0	10.0	0.6	
0.0015	13.0	11.0	5.0	10.0	0.6	
0.0018	13.0	11.0	5.0	10.0	0.6	
0.0022	13.0	11.0	5.0	10.0	0.6	
0.0027	13.0	11.0	5.0	10.0	0.6	
0.0033	13.0	12.0	6.0	10.0	0.6	
0.0036	13.0	12.0	6.0	10.0	0.6	
0.0039	13.0	12.0	6.0	10.0	0.6	
0.0047	13.0	13.0	7.0	10.0	0.6	
0.0056	13.0	13.0	7.0	10.0	0.6	
0.0068	13.0	14.0	8.0	10.0	0.6	
0.0082	13.0	14.0	8.0	10.0	0.6	
0.00056	18	11.0	5.0	15.0	0.8	
0.00062	18	11.0	5.0	15.0	0.8	
0.00068	18	11.0	5.0	15.0	0.8	
0.00082	18	11.0	5.0	15.0	0.8	
0.0010	18	11.0	5.0	15.0	0.8	
0.0012	18	11.0	5.0	15.0	0.8	
0.0015	18	11.0	5.0	15.0	0.8	
0.0018	18	11.0	5.0	15.0	0.8	
0.0022	18	11.0	5.0	15.0	0.8	
0.0027	18	11.0	5.0	15.0	0.8	
0.0033	18	11.0	5.0	15.0	0.8	
0.0039	18	11.0	5.0	15.0	0.8	
0.0047	18	11.0	5.0	15.0	0.8	

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700Vac						
0.0056	18	12.0	6.0	15.0	0.8	MPZ 0700J102D0100000
0.0068	18	12.0	6.0	15.0	0.8	
0.0082	18	13.5	7.5	15.0	0.8	
0.010	18	13.5	7.5	15.0	0.8	
0.012	18	14.5	8.5	15.0	0.8	
0.015	18	14.5	8.5	15.0	0.8	
0.018	18	16.0	10.0	15.0	0.8	
0.022	18	19.0	11.0	15.0	0.8	
0.0068	26.5	15.0	6.0	22.5	0.8	
0.0082	26.5	15.0	6.0	22.5	0.8	
0.010	26.5	15.0	6.0	22.5	0.8	
0.012	26.5	15.0	6.0	22.5	0.8	
0.015	26.5	15.0	6.0	22.5	0.8	
0.018	26.5	16.0	7.0	22.5	0.8	
0.022	26.5	17.0	8.5	22.5	0.8	
0.027	26.5	17.0	8.5	22.5	0.8	
0.033	26.5	18.5	10.0	22.5	0.8	
0.039	26.5	18.5	10.0	22.5	0.8	
0.047	26.5	22.0	12.0	22.5	0.8	
0.056	26.5	22.0	12.0	22.5	0.8	
900Vac						
0.0010	18	11.0	5.0	15.0	0.8	MPZ 0900J102D0150000
0.0012	18	11.0	5.0	15.0	0.8	
0.0015	18	11.0	5.0	15.0	0.8	
0.0018	18	11.0	5.0	15.0	0.8	
0.0022	18	11.0	5.0	15.0	0.8	
0.0027	18	11.0	5.0	15.0	0.8	
0.0033	18	11.0	5.0	15.0	0.8	
0.0039	18	12.0	6.0	15.0	0.8	
0.0047	18	12.0	6.0	15.0	0.8	
0.0056	18	12.0	6.0	15.0	0.8	
0.0068	18	13.5	7.5	15.0	0.8	
0.0082	18	13.5	7.5	15.0	0.8	
0.010	18	14.5	8.5	15.0	0.8	
0.012	18	16.0	10.0	15.0	0.8	
0.015	18	16.0	10.0	15.0	0.8	
0.018	18	19.0	11.0	15.0	0.8	
0.0022	26.5	15.0	6.0	22.5	0.8	
0.0027	26.5	15.0	6.0	22.5	0.8	
0.0033	26.5	15.0	6.0	22.5	0.8	
0.0039	26.5	15.0	6.0	22.5	0.8	
0.0047	26.5	15.0	6.0	22.5	0.8	
0.0056	26.5	15.0	6.0	22.5	0.8	
0.0068	26.5	15.0	6.0	22.5	0.8	

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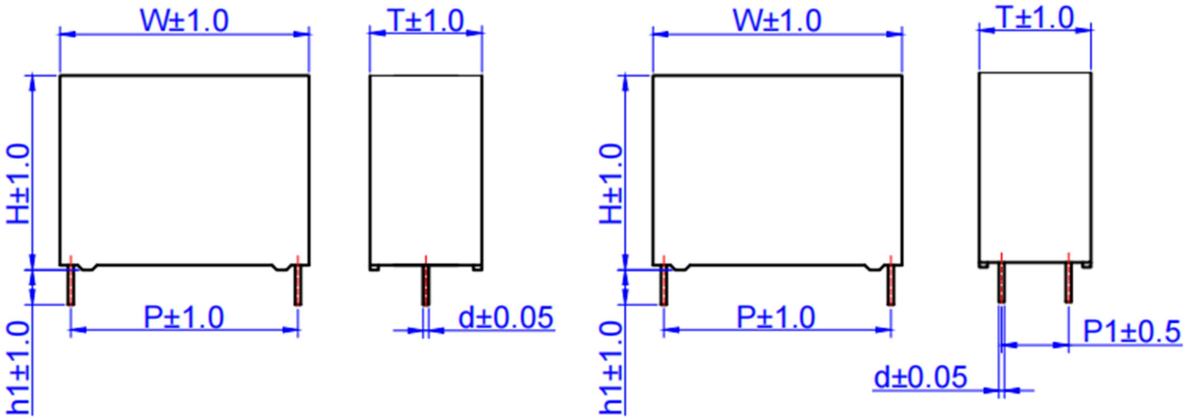
900Vac						
0.0082	26.5	15.0	6.0	22.5	0.8	MPZ 0900J102D0150000
0.010	26.5	16.0	7.0	22.5	0.8	
0.012	26.5	16.0	7.0	22.5	0.8	
0.015	26.5	17.0	8.5	22.5	0.8	
0.018	26.5	18.5	10.0	22.5	0.8	
0.022	26.5	18.5	10.0	22.5	0.8	
0.027	26.5	22.0	12.0	22.5	0.8	
0.033	26.5	22.0	12.0	22.5	0.8	

B10:Series/Type 系列/类型:MX1 系列 X1 类，480Vac/440Vac

金属化聚丙烯膜抗干扰电容器（X1 类，480Vac/440Vac）

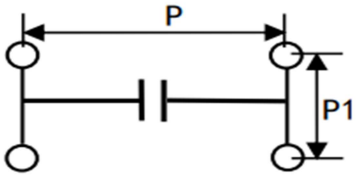
Metallized polypropylene film InterferenceSuppression capacitor(Class X1，480Vac/440Vac)

■ 外形图 Outline Drawing



2Pins 4Pins

■ 电路结构图 Electrical Connection(4 Pins)



■ 特点

- 金属化聚丙烯
- 体积小
- 能承受过压冲击
- 优异的阻燃性能

■ Features

- Metallized polyropylene structure
- Compact size
- Withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities

■ 主要用途

- 用于电源跨线路等抗干扰场合

■ Typical application

- Used in across-line，interference suppression circuit

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T6346.14(IEC60384-14)		
气候类别 Climatic Category	40/110/56		
阻燃等级 Passive Flammability	B		
工作温度范围 Operating Temperature Range	-40℃ ~ +110℃		
额定电压 Rated Voltage(U_R)	480Vac/440Va，50Hz/60Hz		
最大连续直流电压 Maximum continuous DC voltage	1000Vdc		
电容量范围 Capacitance Range	0.001μF～10μF		
电容量偏差 Capacitance Tolerance	±10%(K)、±20%(M)		
耐电压 Voltage Proof	引线之间 Between Terminals：	4.3U_R（Vdc），2s	
	极壳之间 Between Terminals To Case：	2560Vac，1min	
绝缘电阻 Insulation Resistance	R≥15000MΩ，C_N≤0.33μF RC_N≥5000s，C_N＞0.33μF（20℃，100V，1min）		
损耗角正切 Dissipation Factor（tan δ）	0.001μF≤C_N≤0.01μF	≤25×10^{-4}(20℃,1kHz)	≤25×10^{-4}(20℃,10kHz)
	0.01μF≤C_N≤0.47μF	≤15×10^{-4}(20℃,1kHz)	≤20×10^{-4}(20℃,10kHz)
	0.47μF≤C_N≤1.0μF	≤20×10^{-4}(20℃,1kHz)	≤40×10^{-4}(20℃,10kHz)
	1.0μF＜C_N	≤30×10^{-4}(20℃,1kHz)	------
注：1.如果需要用到承载一定纹波电流场合，建议选用 MPYL 等专用的滤波电容器；如有疑问，请与我司技术工程师联系； 2.若用于户外或长期湿度较大场合，建议选用防潮设计。	If used in application which has ripple current applied,recommend to use AC filter series：MPYL etc;If have any questions please contact our technical engineer for more detail; For outdoor or severe humidity condition application,recommend to use THB series.		

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	X	1			0	4	8	0	K	1	0	4	D	0	1	5	0	0	0	0

第 1~3 位 型号代码 MX1

第 4 位 引线加工代码 C：短脚，

第 5 位 内部码

第 6~9 位 额定电压代码

第 10 位 容量偏差 K=±10%，M=±20%

第 11~13 位 标称容量 105=10×10^5pF=1.0μF

第 14~15 位 标准品外壳及尺寸识别码

第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm

第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm

Digit 1 to 3 Series code MX1

Digit 4 Lead form code C

Digit Internal use

Digit Rated voltage code

Digit Capacitance tolerance

Digit Rated capacitance value

Digit Standard product casing and size identification code

Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm

Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

480Vac/440Vac						
C_N（μF）	W	H	T	P	d	Part number
0.0010	13.0	9.0	4.0	10.0	0.6	MX1 0480K102D0100000
0.0012	13.0	9.0	4.0	10.0	0.6	
0.0015	13.0	9.0	4.0	10.0	0.6	
0.0018	13.0	9.0	4.0	10.0	0.6	
0.0022	13.0	9.0	4.0	10.0	0.6	
0.0027	13.0	9.0	4.0	10.0	0.6	
0.0033	13.0	9.0	4.0	10.0	0.6	
0.0039	13.0	9.0	4.0	10.0	0.6	
0.0047	13.0	9.0	4.0	10.0	0.6	
0.0056	13.0	9.0	4.0	10.0	0.6	
0.0068	13.0	9.0	4.0	10.0	0.6	
0.0082	13.0	9.0	4.0	10.0	0.6	
0.010	13.0	9.0	4.0	10.0	0.6	
0.012	13.0	11.0	5.0	10.0	0.6	
0.015	13.0	11.0	5.0	10.0	0.6	
0.018	13.0	11.0	5.0	10.0	0.6	
0.022	13.0	11.0	5.0	10.0	0.6	
0.027	13.0	12.0	6.0	10.0	0.6	
0.033	13.0	12.0	6.0	10.0	0.6	
0.039	13.0	13.0	7.0	10.0	0.6	
0.047M	13.0	13.0	7.0	10.0	0.6	
0.047	13.0	14.0	8.0	10.0	0.6	
0.056	13.0	14.0	8.0	10.0	0.6	
0.010	18	9.5	5.0	15.0	0.6	
0.012	18	9.5	5.0	15.0	0.6	
0.015	18	9.5	5.0	15.0	0.6	
0.018	18	9.5	5.0	15.0	0.6	
0.022	18	9.5	5.0	15.0	0.6	
0.027	18	11.0	5.0	15.0	0.6	
0.033	18	11.0	5.0	15.0	0.6	
0.039	18	12.0	6.0	15.0	0.6	
0.047	18	12.0	6.0	15.0	0.6	
0.056M	18	12.0	6.0	15.0	0.6	
0.056	18	12.0	7.0	15.0	0.6	
0.068	18	13.5	7.5	15.0	0.6	
0.068	18	12.0	13.0	15.0	0.8	
0.082	18	14.0	8.0	15.0	0.6	
0.10M	18	14.0	8.0	15.0	0.6	
0.10	18	14.5	8.5	15.0	0.6	
0.12	18	16.0	10.0	15.0	0.8	

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480Vac/440Vac						
0.15M	18	16.0	10.0	15.0	0.8	MX1 0480K154D0150000
0.15	18	19.0	11.0	15.0	0.8	
0.18	18	19.0	11.0	15.0	0.8	
0.039	26.5	15.0	6.0	22.5	0.8	
0.047	26.5	15.0	6.0	22.5	0.8	
0.056	26.5	15.0	6.0	22.5	0.8	
0.068	26.5	15.0	6.0	22.5	0.8	
0.082	26.5	15.0	6.0	22.5	0.8	
0.10	26.5	15.0	6.0	22.5	0.8	
0.12	26.5	15.0	6.0	22.5	0.8	
0.15	26.5	16.0	7.0	22.5	0.8	
0.18	26.5	17.0	8.5	22.5	0.8	
0.22	26.5	17.0	8.5	22.5	0.8	
0.27	26.5	18.5	10.0	22.5	0.8	
0.33	26.5	20.0	11.0	22.5	0.8	
0.39	26.5	20.0	11.0	22.5	0.8	
0.47M	26.5	22.0	12.0	22.5	0.8	
0.47	26.5	23.0	13.5	22.5	0.8	
0.56M	26.5	23.0	13.5	22.5	0.8	
0.56	26.5	24.5	15.5	22.5	0.8	
0.68M	26.5	24.5	15.5	22.5	0.8	
0.15	32.0	18.0	9.0	27.5	0.8	
0.18	32.0	18.0	9.0	27.5	0.8	
0.22	32.0	18.0	9.0	27.5	0.8	
0.27	32.0	18.0	9.0	27.5	0.8	
0.33	32.0	18.0	9.0	27.5	0.8	
0.33	32.0	12.0	18.0	27.5	0.8	
0.39	32.0	20.0	11.0	27.5	0.8	
0.47	32.0	20.0	11.0	27.5	0.8	
0.47	32.0	12.0	22.0	27.5	0.8	
0.56	32.0	22.0	13.0	27.5	0.8	
0.68M	32.0	22.0	13.0	27.5	0.8	
0.68	32.0	25.0	13.0	27.5	0.8	
1.0M	32.0	16.0	27.5	27.5	0.8	
1.0	32.0	18.5	31.0	27.5	0.8	
1.0	32.0	28.0	17.0	27.5	0.8	
1.0	32.0	30.0	16.0	27.5	0.8	
1.2M	32.0	30.0	16.0	27.5	0.8	
1.2M	32.0	28.0	17.0	27.5	0.8	
1.2	32.0	29.0	19.0	27.5	0.8	
1.2	32.0	33.0	18.0	27.5	0.8	
1.5M	32.0	18.5	31.0	27.5	0.8	

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480Vac/440Vac						
1.5	32.0	33.0	18.0	27.5	0.8	MX1 0480K155D2750000
1.8	32.0	37.0	22.0	27.5	0.8	
2.2M	32.0	37.0	22.0	27.5	0.8	
0.33	41.0	22.0	11.0	37.5	1.0	
0.39	41.0	22.0	11.0	37.5	1.0	
0.47	41.0	22.0	11.0	37.5	1.0	
0.56	41.0	22.0	11.0	37.5	1.0	
0.68	41.0	22.0	11.0	37.5	1.0	
0.82M	41.0	22.0	11.0	37.5	1.0	
0.82	41.0	24.0	13.0	37.5	1.0	
1.0	41.0	24.0	13.0	37.5	1.0	
1.0	42.0	15.0	24.0	37.5	1.0	
1.2	41.0	26.0	15.0	37.5	1.0	
1.2	42.0	28.0	14.0	37.5	1.0	
1.5M	41.0	26.0	15.0	37.5	1.0	
1.5M	42.0	28.0	14.0	37.5	1.0	
1.5	41.0	30.0	16.0	37.5	1.0	
1.5	42.0	19.0	24.0	37.5	1.0	
1.8M	41.0	30.0	16.0	37.5	1.0	
1.8	41.0	32.0	17.0	37.5	1.0	
2.2M	41.0	32.0	17.0	37.5	1.0	
2.2	41.0	33.5	18.5	37.5	1.0	
2.7	41.0	37.0	22.0	37.5	1.0	
3.3M	41.0	37.0	22.0	37.5	1.0	
3.3	41.0	41.0	26.0	37.5	1.0	
3.3	41.5	37.5	27.5	37.5	1.0	
3.9	41.0	41.0	26.0	37.5	1.0	
3.9	41.5	37.5	27.5	37.5	1.0	
4.7M	41.0	43.0	28.0	37.5	1.0	
4.7	42.0	45.0	30.0	37.5	1.0	
4.7	57.0	38.0	24.0	52.5	1.2	
5.6	57.0	45.0	30.0	52.5	1.2	

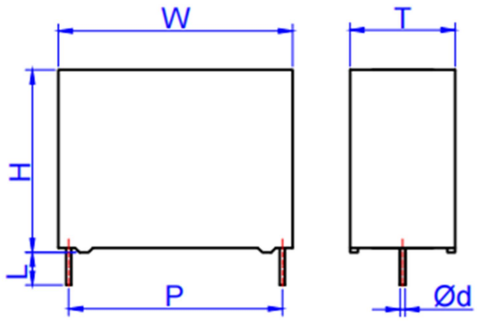
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B11:Series/Type 系列/类型:MY2 系列 Y2 类，300Vac

金属化聚丙烯膜抗干扰电容器（Y2 类，300Vac）

Metallized polypropylene film InterferenceSuppression capacitor(Class Y2，300Vac)

■ 外形图 Outline Drawing



W±0.5 H±0.5 T±0.5 mm

■ 特点

- 金属化聚丙烯
- 能承受过压冲击
- 优异的阻燃性能

■ Features

- Metallized polypropylene structure
- Withstanding overvoltage stressing
- Excellent active and passive flame resistant abilities

■ 主要用途

- 广泛用于电源接地、旁路、天线耦合等抗干扰场合

■ Typical application

- Widely used in line to ground,line-by-pass,antenna coupling interference suprression circuit,etc

■ 安全认证 Safety Approvals

●	CQC	CQC (中国)	GB/T6346.14-2023, Y2,300Vac,0.001μF ~ 1.0μF，40/110/56/B 证书号（Certificate No.）：CQC22001348103
●	10 VDE	ENEC-VDE (欧盟)	IEC 60384-14:2023, Y2,300Vac,0.001μF ~ 1.0μF，40/110/56/B 证书号（Certificate No.）：40054190
●	cULus	UL/CUL (美国/加拿大)	UL 60384-14:2009,CSA E60384-14:09, Y2,300Vac,0.001μF ~ 1.0μF，40/110/56/B 证书号（Certificate No.）：E351313
●		KC (韩国)	无认证证书 No certification certificate

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T6364.14(IEC60384-14)		
气候类别 Climatic Category	40/110/56		
阻燃等级 Passive Flammability	B		
工作温度范围 Operating Temperature Range	-40℃ ~ +110℃		
额定电压 Rated Voltage(U_R)	300Vac，50Hz/60Hz		
最大连续直流电压 Maximum continuous DC voltage	1000Vdc		
电容量范围 Capacitance Range	0.001μF～1μF		
电容量偏差 Capacitance Tolerance	±10%(K)、±20%(M)		
耐电压 Voltage Proof	引线之间 Between Terminals：	2000Vac,2s or	4000Vdc,2s $C_N \leq 0.33\mu F$
			3700Vdc,2s $C_N > 0.33\mu F$
	极壳之间 Between Terminals To Case：	2500Vac,1min	
绝缘电阻 Insulation Resistance	R≥15000MΩ，$C_N \leq 0.33\mu F$ $RC_N \geq 5000s$，$C_N > 0.33\mu F$（20℃，100V，1min）		
损耗角正切 Dissipation Factor（tan δ）	$\leq 30\times10^{-4}$(20℃,1kHz)	$\leq 40\times10^{-4}$(20℃,10kHz)	

■ 产品编码说明 Part number system

21 位产品代码如下：

The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	Y	2			0	3	0	0	K	1	0	4	E	0	2	2	0	0	0	0

第 1~3 位 型号代码 MY2

第 4 位 引线加工代码 C：短脚，

第 5 位 内部码

第 6~9 位 额定电压代码

第 10 位 容量偏差 K=±10%, M=±20%

第 11~13 位 标称容量 105=10×10^5pF=1.0μF

第 14~15 位 标准品外壳及尺寸识别码

第 16~17 位 引线脚距 P 27=27.5mm 32=32.5mm 37=37.5mm

第 18~21 位 引线长度 0000=长脚 min15mm，0050=5.0mm

Digit 1 to 3 Series code MY2

Digit 4 Lead form code C

Digit Internal use

Digit Rated voltage code

Digit Capacitance tolerance

Digit Rated capacitance value

Digit Standard product casing and size identification code

Digit Pitch 27=27.5mm 32=32.5mm 37=37.5mm

Digit Lead length 0000= long lead min15mm，0050=5.0mm

备注：具体编带式样尺寸请和我司技术工程师对标产品规格书。

Note: For specific Taping styles and sizes, please refer to our product specifications with our technical engineers.

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■ 外形尺寸 Dimensions(mm)：

300Vac						
C_N（μF）	W	H	T	P	d	Part number
0.001	13	9	4	10	0.6	MY2 0300K102E0100000
0.0012	13	9	4	10	0.6	MY2 0300K122E0100000
0.0015	13	9	4	10	0.6	MY2 0300K152E0100000
0.0018	13	9	4	10	0.6	MY2 0300K182E0100000
0.0022	13	9	4	10	0.6	MY2 0300K222E0100000
0.0027	13	9	4	10	0.6	MY2 0300K272E0100000
0.0033	13	9	4	10	0.6	MY2 0300K332E0100000
0.0033	13	11	5	10	0.6	MY2 0300K332E1100000
0.0039	13	9	4	10	0.6	MY2 0300K392E0100000
0.0039	13	11	5	10	0.6	MY2 0300K392E1100000
0.0047	13	11	5	10	0.6	MY2 0300M472E0100000
0.0047	13	11	5	10	0.6	MY2 0300K472E1100000
0.0056	13	11	5	10	0.6	MY2 0300K562E0100000
0.0068	13	11	5	10	0.6	MY2 0300K682E0100000
0.0082	13	12	6	10	0.6	MY2 0300K822E0100000
0.01	13	12	6	10	0.6	MY2 0300K103E0100000
0.012	13	12	6	10	0.6	MY2 0300K123E0100000
0.015	13	12	6	10	0.6	MY2 0300M153E0100000
0.0022	18	10	4	15	0.6	MY2 0300K222E0150000
0.0027	18	10	4	15	0.6	MY2 0300K272E0150000
0.0033	18	10	4	15	0.6	MY2 0300K332E0150000
0.0039	18	10	4	15	0.6	MY2 0300K392E0150000
0.0047	18	10	4	15	0.6	MY2 0300K472E0150000
0.0056	18	10	4	15	0.6	MY2 0300K562E0150000
0.0068	18	10	4	15	0.6	MY2 0300K682E0150000
0.0082	18	10	4	15	0.6	MY2 0300K822E0150000
0.01	18	10	4	15	0.6	MY2 0300K103E0150000
0.01	18	11	5	15	0.6	MY2 0300K103E1150000
0.012	18	11	5	15	0.6	MY2 0300K123E0150000
0.015	18	11	5	15	0.6	MY2 0300K153E0150000
0.018	18	11	5	15	0.6	MY2 0300K183E0150000
0.018	18	12	6	15	0.6	MY2 0300K183E1150000
0.022	18	12	6	15	0.6	MY2 0300K223E0150000
0.022	18	13.5	7.5	15	0.6	MY2 0300K223E1150000
0.022	18	13.5	6	15	0.6	MY2 0300K223E2150000
0.022	18	13.5	7.5	15	0.8	MY2 0300K223E3150000
0.027	18	12	6	15	0.6	MY2 0300K273E0150000
0.027	18	12.5	7	15	0.6	MY2 0300K273E1150000
0.033	18	13.5	7.5	15	0.6	MY2 0300K333E0150000

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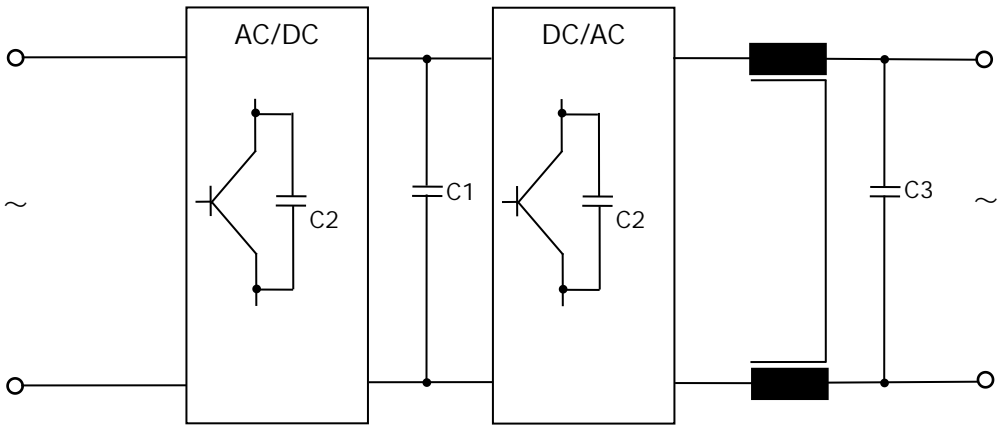
300Vac						
0.033	18	14.5	8.5	15	0.8	MY2 0300K333E1150000
0.033	18	12.5	9	15	0.6	MY2 0300K333E2150000
0.033	18	13.5	6	15	0.6	MY2 0300K333E3150000
0.039	18	13.5	7.5	15	0.6	MY2 0300K393E0150000
0.047	18	14.5	8.5	15	0.8	MY2 0300K473E0150000
0.047	18	16	10	15	0.8	MY2 0300K473E1150000
0.056	18	16	10	15	0.8	MY2 0300K563E0150000
0.056	18	18	9	15	0.8	MY2 0300K563E1150000
0.056	18	19	11	15	0.8	MY2 0300K563E2150000
0.068	18	16	10	15	0.8	MY2 0300K683E0150000
0.068	18	18	9	15	0.8	MY2 0300K683E1150000
0.068	18	19	11	15	0.8	MY2 0300K683E2150000
0.082	18	19	11	15	0.8	MY2 0300K823E0150000
0.033	26.5	15	6	22.5	0.8	MY2 0300K333E0220000
0.039	26.5	15	6	22.5	0.8	MY2 0300K393E0220000
0.047	26.5	15	6	22.5	0.8	MY2 0300K473E0220000
0.056	26.5	15	6	22.5	0.8	MY2 0300K563E0220000
0.068	26.5	15	6	22.5	0.8	MY2 0300M683E1220000
0.068	26.5	16	7	22.5	0.8	MY2 0300K683E0220000
0.082	26.5	16	7	22.5	0.8	MY2 0300K823E0220000
0.082	26.5	17	8.5	22.5	0.8	MY2 0300K823E1220000
0.1	26.5	17	8.5	22.5	0.8	MY2 0300K104E0220000
0.1	26.5	18.5	10	22.5	0.8	MY2 0300K104E7220000
0.1	26	20	10	22.5	0.8	MY2 0300K104E1220000
0.12	26.5	17	8.5	22.5	0.8	MY2 0300K124E0220000
0.15	26.5	18.5	10	22.5	0.8	MY2 0300K154E0220000
0.15	26.5	22	12	22.5	0.8	MY2 0300K154E1220000
0.18	26.5	22	10	22.5	0.8	MY2 0300K184E0220000
0.18	26.5	20	11	22.5	0.8	MY2 0300K184E1220000
0.22	26.5	22	12	22.5	0.8	MY2 0300K224E0220000
0.27	26.5	23	13	22.5	0.8	MY2 0300K274E0220000
0.33	26	25	15	22.5	0.8	MY2 0300K334E0220000
0.33	26.5	29.5	14.5	22.5	0.8	MY2 0300K334E1220000
0.39	26.5	29.5	14.5	22.5	0.8	MY2 0300K394E0220000
0.1	32	18	9	27.5	0.8	MY2 0300K104E0270000
0.12	32	18	9	27.5	0.8	MY2 0300K124E0270000
0.15	32	18	9	27.5	0.8	MY2 0300K154E0270000
0.18	32	20	11	27.5	0.8	MY2 0300K184E0270000
0.22	32	20	11	27.5	0.8	MY2 0300K224E0270000
0.27	32	20	11	27.5	0.8	MY2 0300M274E1270000
0.27	32	22	13	27.5	0.8	MY2 0300K274E0270000
0.33	32	22	13	27.5	0.8	MY2 0300M334E3270000
0.33	32	22	13	27.5	0.8	MY2 0300K334E1270000
0.33	32	25	13	27.5	0.8	MY2 0300K334E0270000

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300Vac						
0.33	32	24.5	15	27.5	0.8	MY2 0300K334E2270000
0.39	32	28	14	27.5	0.8	MY2 0300K394E0270000
0.39	32	24.5	15	27.5	0.8	MY2 0300K394E1270000
0.47	32	28	14	27.5	0.8	MY2 0300K474E2270000
0.47	32	24.5	15	27.5	0.8	MY2 0300K474E0270000
0.47	32	28	17	27.5	0.8	MY2 0300K474E1270000
0.47	32	30	15	27.5	0.8	MY2 0300K474E3270000
0.56	32	28	17	27.5	0.8	MY2 0300K564E0270000
0.56	32	30	16	27.5	0.8	MY2 0300K564E1270000
0.56	32	33	18	27.5	0.8	MY2 0300K564E2270000
0.68	32	33	18	27.5	0.8	MY2 0300K684E0270000
0.82	32	33	18	27.5	0.8	MY2 0300M824E1270000
0.82	32	37	22	27.5	0.8	MY2 0300K824E0270000
1.0	32	37	22	27.5	0.8	MY2 0300K105E0270000
0.33	41.5	22	11	37.5	1.0	MY2 0300K334E0370000
0.33	41.5	24	13	37.5	1.0	MY2 0300K334E1370000
0.39	41.5	22	11	37.5	1.0	MY2 0300K394E0270000
0.39	41.5	24	13	37.5	1.0	MY2 0300K394E1370000
0.47	41.5	24	13	37.5	1.0	MY2 0300K474E0370000
0.56	41.5	28	14	37.5	1.0	MY2 0300K564E0370000
0.56	41.5	26	15	37.5	1.0	MY2 0300K564E1370000
0.68	41.5	30	16.5	37.5	1.0	MY2 0300K684E0370000
0.68	41.5	28	14	37.5	1.0	MY2 0300K684E1370000
0.68	41.5	26	15	37.5	1.0	MY2 0300M684E2370000
0.82	41.5	30	16.5	37.5	1.0	MY2 0300K824E0370000
0.82	41.5	32	17	37.5	1.0	MY2 0300K824E1370000
1.0	41.5	32	17	37.5	1.0	MY2 0300K105E0370000
1.0	41.5	33.5	18.5	37.5	1.0	MY2 0300K105E1370000
1.0	41.5	37	22	37.5	1.0	MY2 0300K105E2370000

电力电子电容器
Capacitors for power electronics

一、电容器选用指南　Guide for capacitors choosing



序号 NO.	功能 Function	PCB安装系列 For PCB mounting series
C1	直流滤波 DC-Link	MPY　(C3D、CBB60、MKP86)
C2	IGBT吸收 IGBT Snubber	BPE　BPS (C3H、C16、C82、C32、MKP89)
C3	交流滤波 AC filter	MPYL　(C6A、CBB66)

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二、电力电子电容器的标准体系

电力电子电容器的主要标准是由中国国家标准化管理委员会发布的 GB/T 17702 和 GB/T 12747.1、GB/T 12747.2（分别等同由 IEC 33 技术委员会（电力电容器）制定 IEC 61071, IEC 60831-1、IEC 60831-2）。

作为补充，我司也引用了 GB/T 25121.1（等效 IEC 61881-1）、GB/T 21563（等同 IEC 61373）和 AEC-Q200 等标准，以满足铁路、汽车等特定场合的应用要求。

我司主要在上述标准的基础上制定了各个型号电力电子电容器的企业标准，以供内部引用。

另外，电力电子电容器的部分标准术语也参考了其它电容器标准中的定义，不再一一列出。

以上，构成了电力电子电容器的标准体系

电力电子电容器的标准体系，举例如下：

二、The standard system of capacitors for power electronics

The main standards are GB/T 17702 and GB/T 12747.1&GB/T 12747.2, published by Standardization Administration of the people’ s republic of China.These standards are equal to IEC 61071, IEC 60831-1&IEC 60831-2, prepared by IEC technical committee 33: Power capacitors.
As supplementary, Faratronic also refers to GB/T 25121.1(IEC 61881-1 MOD), GB/T 21563(IEC 61373 idt) and AEC-Q200 and so on, for railwayor automobile applications.
According to the basic requirements of above standards, Faratronic made detailed standards of various types of capacitors for internal use.
In additional, some terminologies are also reference to other capacitor standards, which will be not listed below.
The standard system of lamp capacitors is made up of all above standards.
Following, please find the corresponding specification lists for power electronics capacitors.

标准号(No.)	标　准 (Standards)
GB/T 17702 （IEC 61071）	电力电子电容器 Capacitors for power electronics
GB/T 12747.1 （IEC 60831-1）	标称电压 1 000V 及以下交流电力系统用自愈式并联电容器 第 1 部分：总则 性能、试验和定额 安全要求 安装和运行导则 Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000V - Part 1: General - Performance,testing and rating - Safety requirements - Guide for installation and operation
GB/T 12747.2 （IEC 60831-2）	标称电压 1 000V 及以下交流电力系统用自愈式并联电容器 第 2 部分：老化试验、自愈性试验和破坏试验 Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000V - Part 2: Ageing test, self-healing test and destruction test
GB/T 25121.1 （IEC 61881-1）	轨道交通 机车车辆设备 电力电子电容器 第 1 部分：纸/塑料薄膜电容器 Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 1: Paper/plastic film capacitors
GB/T 21563 （IEC 61373）	轨道交通 机车车辆设备 冲击和振动试验 Railway applications - Rolling stock equipment - Shock and vibration tests
JB/T 8168	脉冲电容器及直流电容器 Pulse capacitors and direct current capacitors
AEC-Q200	STRESS TEST QUALIFICATION FOR PASSIVE COMPONENTS
GB/T 4798.1 （IEC 60721-3-1）	环境条件分类 环境参数组分类及其严酷程度分级 第 1 部分：贮存 Classification of environmental conditions - Classification of groups of environmental parameters and their severities - Part 1:Storage
GB/T 4798.2 （IEC 60721-3-2）	环境条件分类 环境参数组分类及其严酷程度分级 第 2 部分：运输和装卸 Classification of environmental conditions - Classification of groups of environmental parameters and their severities - Part 2:Transportation and handling
GB/T 4798.3 （IEC 60721-3-3）	环境条件分类 环境参数组分类及其严酷程度分级 第 3 部分：有气候防护场所固定使用 Classification of environmental conditions - Classification of groups of environmental parameters and their severities - Part 3:Stationary use at weatherprotected locations
	详细规范：Detail specification for each type.

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三、常用的标准术语

1. 额定容量 C_N

电容器在 20℃/50~120Hz 下的设计电容量。

2. 额定电压 U_N

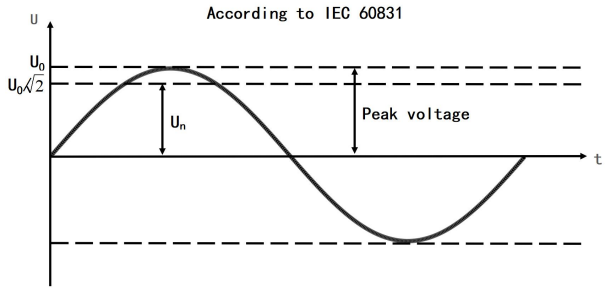
对采用 IEC 60831-1/-2 标准的电容器，仅指设计电容器时规定的交流电压方均根值。

对采用 IEC 61071 标准的电容器，可分为：

额定交流电压 U_N：设计电容器时所采用的反转型波形的任一极性的最高运行峰值周期电压。

额定直流电压 U_{NDC}：设计电容器时所采用的非反转型波形的任一极性的可连续运行的最高运行峰值电压。

若仅采用交流额定电压或直流额定电压，可直接用 U_N 来表示；若同时采用这两种额定电压，需用 U_N 与 U_{NDC} 加以区分。



3. 有效值电压 U_{rms}

电容器在连续运行过程中允许出现的最大正弦交流电压的方均根值。

4. 纹波电压 U_r

单向电压的峰到峰的交流分量。

5. 非周期冲击电压 U_s

由切换或系统中任何别的扰动所导致的峰值电压，此电压只允许出现有限的次数，且每次持续时间应比基本周期短。

6. 绝缘电压 U_I

设计电容器时规定的电容器端子对外壳或对地交流电压的方均根值。若未作说明，此绝缘电压等于额定电压除以 $\sqrt{2}$ 。

7. 最大电流 I_{max}

连续运行时的最大电流的方均根值。

三、Terminologies

1.Rated capacitance C_N

Designed capacitance of the capacitor at 20℃/50 to 120Hz.

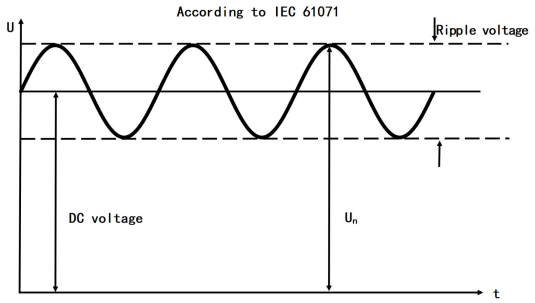
2.Rated voltage U_N

For the capacitor referenced to IEC 60831-1/-2, it only means the r.m.s. value of a.c. voltage for which the capacitor has been designed.

For the capacitor referenced to IEC 61071, it is divided into, Rated a.c.voltage U_N: maximum operating peak recurrent voltage of either polarity of a reversing type waveform for which the capacitor has been designed.

Rated d.c.voltage U_{NDC}: maximum operating peak voltage of either polarity but of a non-reversing type waveform, for which the capacitor has been designed, for continuous operation.

If just use rated a.c.voltage or rated d.c.voltage, U_N is useable. But if use both rated voltages, we should use both U_N and U_{NDC} to divide them.



3.rms voltage U_{rms}

Root mean square of max. permissible value of sinusoidal a.c. voltage in continuous operation.

4.Ripple voltage U_r

Peak-to-peak alternating component of the unidirectional voltage.

5.Non-recurrent surge voltage U_s

Peak voltage induced by a switching or any other disturbance of the system which is allowed for a limited number of times and for durations shorter than the basic period.

6.Insulation voltage U_I

rms value of a.c.voltage designed for the insulation between terminals of the capacitor to case or earth.The insulation voltage is equal to the rated voltage of the capacitor, divided by $\sqrt{2}$, unless otherwise specified.

7.Maximum current I_{max}

Maximum rms current for continuous operation.

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8. 最大峰值电流 $\hat{I}$

在连续运行中允许重复出现的最大峰值电流。其数值为：

$\hat{I}=C\times(dV/dt)$

其中 C 为电容量，dV/dt 表示电压爬升速率，即在运行中允许重复出现的最大电压爬升速率，常用来代替$\hat{I}$使用。

9. 最大冲击电流 $\hat{I}_s$

由切换或系统中任何别的扰动所导致的允许出现的峰值电流，此电流只允许出现有限的次数，且每次持续时间应比基本周期短。

10. 串联电阻 R_s

在规定的运行条件下，电容器的导体部分的等效电阻。串联电阻随温度升高而增大，其电阻温度系数约为 0.004/℃，近似公式为：

$R_s(T2)=[1+0.004\times(T2-T1)]\times R_s(T1)$

11. 等效串联电阻 ESR

一个有效电阻，当它和所探讨的电容器有相等电容值的理想电容器串联时，在规定的运行条件下，该电阻的损耗功率将等于该电容器中耗散的有功功率。

12. 介质损耗角正切 $\tan\delta_d$

电容器的介质材料在额定频率下的损耗常数。聚丙烯薄膜的典型介质损耗因素为 2×10^{-4}。

13. 电容器的损耗角正切 $\tan\delta$

在规定频率的正弦波电压作用下，电容器的损耗功率除以电容器的无功功率，其值为等效串联电阻和容抗之比。

14. 介质损耗功率 P_d

电容器的电介质由于极化或电导引起的损耗，其值为：

$P_d=\hat{u}^2\times\pi\times f_0\times C\times\tan\delta_d$

直流电容器：$\hat{u}=U_r/2$

交流电容器：$\hat{u}=\sqrt{2}\,U_{rms}$

GTO 吸收电容器：$\hat{u}=U_{NDC}/2$

f_0：施加在电容器上电压的基本频率

C：电容量

15. 焦耳损耗功率 P_J

当电容器通过有效电流时，由于串联电阻 R_s 发热而引起的损耗，其值为：

$P_J=I^2_{rms}\times R_s$

8.Maximum peak current $\hat{I}$

Maximum permitted repetitive peak current that can occur during continuous operation. The value is following:

$\hat{I}=C\times(dV/dt)$

Where C is capacitance and dV/dt indicates rate of voltage rise, which means maximum permitted repetitive rate of voltage rise of operational voltage, usually using instead of $\hat{I}$.

9.Maximum surge current $\hat{I}_s$

Peak non-repetitive current induced by swiyching or any other disturbance of the system which is allowed for a limited number of times, for durations shorted than basic period.

10. Series resistance R_s

Effective ohmic resistance of the conductors of a capacitor under specified operating conditions. It depends on temperature and the approximate TCR is 0.004/℃. The approximate formula is following,

$R_s(T2)=[1+0.004\times(T2-T1)]\times R_s(T1)$

11. Equivalent series resistance ESR

Effective resistance which, if connected in series with an ideal capacitor of capacitance value equal to that of the capacitor in question, would have a power loss equal to active power dissipated in that capacitor under specified operating conditions.

12. Dielectric dissipation factor $\tan\delta_d$

Constant dissipation factor of the dielectric material for all capacitors at their rated frequency. The typical loss factor of polypropylene film is 2×10^{-4}.

13. Loss factor of the capacitor $\tan\delta$

The dissipation factor is ratio between reactive power of the impedance of the capacitor and effective power when capacitor is submitted to a sinusoidal voltage of specified frequency, it is that ratio between the equivalent series resistance and the capacitive reactance of a capacitor.

14. Dielectric power loss P_d

Loss power induced by dielectric polarization or dielectric Conductance. The value is following:

$P_d=\hat{u}^2\times\pi\times f_0\times C\times\tan\delta_d$

Where, for DC capacitors：$\hat{u}=U_r/2$

for AC capacitors：$\hat{u}=\sqrt{2}\,U_{rms}$

for GTO snubber capacitors：$\hat{u}=U_{NDC}/2$

f_0:fundamental frequency

C:capacitance

15. Joule power loss P_J

Loss power induced by series resistance of the capacitor under rms current.The value is following:

$P_J=I^2_{rms}\times R_s$

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16. 电容器的损耗功率 P_t

电容器所消耗的有功功率，由介质损耗与焦耳损耗组成，即 $P_t=P_d+P_J=I^2_{rms}\times ESR$

17. 最大损耗功率 P_{max}

在最高运行温度下电容器可以承载的最大损耗功率。

18. 自感 L_s

电容器由于自身结构或组成的原因所表现出来的电感。

19. 谐振频率 f_r

电容器的阻抗成为最小时的最低频率。其值为：

$f_r=1/(2\pi\times\sqrt{L_S\times C_N})$

20. 额定频率 f_N

设计电容器时所规定的频率。

21. 运行温度 θ_{case}

在电容器达到热平衡状态时的外壳最热点处温度。

22. 最高运行温度 θ_{max}

电容器可以运行的最高外壳温度。

23. 最低运行温度 θ_{min}

电容器可以运行的最低电介质温度。

24. 冷却空气温度 θ_{amb}

在稳定状态条件下，在电容器组最热区域的两单元之间中途所测得的空气温度。

如果仅涉及一单元。则指在离电容器外壳 10cm 且距其基底 2/3 高度处所测得的空气温度。

25. 外壳温升 $\Delta\theta_{case}$

外壳最热点温度和冷却空气温度之差。

26. 热阻 R_{th}

热阻表征的是电容器的发热功率每上升1瓦，电容器内最热点的温度在环境温度 θ_{amb} 的基础上升高的度数。

R_{th} 由内部热点到外壳的热阻 R_{thhc} 与外壳到环境的热阻 R_{thca} 两部分组成。

27. 热点温度 θ_{hs}

电容器内部最热点处的温度。其值为：

$\theta_{hs}=\theta_{amb}+P_t\times R_{th}$ 或者 $\theta_{hs}=\theta_{case}+P_t\times R_{thhc}$

16. Capacitor losses P_t

Active power dissipated in the capacitor, consists of dielectric loss and joule loss., i.e. $P_t=P_d+P_J=I^2_{rms}\times ESR$

17. Maximum power loss P_{max}

Maximum power loss at which the capacitor may be operated at the maximum case temperature.

18. Self-inductance L_s

Represents the sum of all inductive elements which are-for mechanical and construction reasons-contained in any capacitor.

19. Resonance frequency f_r

Lowest frequency at which the impedance of the capacitor becomes minimum. The value isfollowing:

$f_r=1/(2\pi\times\sqrt{L_S\times C_N})$

20. Rated frequency f_N

Specified frequency for which the capacitor has been designed

21.Operating temperature θ_{case}

Temperature of the hottest point on the case of the operating capacitor in thermal equilibrium.

22.Maximum operating temperature θ_{max}

Highest temperature of the case at which the capacitor may be operated.

23.Lowest operating temperature θ_{min}

Lowest temperature of the dielectric at which the capacitor may be energized.

24.Cooling-air temperature θ_{amb}

Temperature of the air measured at the hottest position of the capacitor, under steady-state conditions, midway between two units.

If only one unit is involved, it is the temperature of surrounding air, measured 10cm away and at 2/3 of the case height of the capacitor under steady-state conditions.

25.Contained temperature rise $\Delta\theta_{case}$

Difference between the temperature of the hottest point of the container and the temperature of the cooling air.

26.Thermal resistance R_{th}

The thermal resistance indicates by how many degrees the capacitor temperature at the hotspot rises above θ_{amb} per wattof the heat dissipation losse.

R_{th} consists of R_{thhc} (thermal resistance from internal hotspot to case) and R_{thca} (thermal resistance from case to ambient).

27.Hotspot temperature θ_{hs}

Temperature at the hottest spot inside the capacitor. The value is following:

$\theta_{hs}=\theta_{amb}+P_t\times R_{th}$ or $\theta_{hs}=\theta_{case}+P_t\times R_{thhc}$

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28. 容量温度系数 α

电容器在规定的温度范围内容量随温度的变化率。通常以 20℃时电容量为参考，用百万分之一每摄氏度（10^{-6}/℃）表示。(10^{-6}/℃ = 1ppm/℃)

$$\alpha_1 = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

C_I：电容器在温度 T_i 时容量

C_0：电容器在 T_0(20±2)℃时的容量

29. 气侯类别

电容器所属的气侯类别用斜线分隔的三个数来表示（IEC 60068-1：如：40/85/56）。

40/ 85/56

- 稳态湿热实验的天数 (56 天)
- 上限类别温度 (+85℃)
- 下限类别温度 (−40℃)

30. 绝缘电阻(IR)/时间常数(τ)

绝缘电阻为电容器充电 1 分钟后所加的直流电压和流经电容器的漏电流值的比值，单位为 MΩ。时间常数为绝缘电阻和电容量的乘积，通常以秒表示，公式如下：

$$\tau\,[s] = IR[M\Omega] \times C_N\,[\mu F]$$

一般情况下，绝缘电阻用于描述小容量电容器的绝缘特性，时间常数用于描述大容量（如：C_N＞0.33 μF）电容器的绝缘特性。

另外，对于 1 分钟内无法充满电的更大容量的产品，常选 5 分钟、10 分钟，甚至更长时间作为充电时间，或者由供需双方协商决定。

31. 自愈性（仅对金属化膜电容器）

电容器的电特性在发生局部电介质击穿后迅速而基本地恢复到击穿前的值的过程。

金属化膜的金属镀层是通过真空蒸发的方法将金属沉积在薄膜上，厚度只有几十个纳米，当介质上存在弱点、杂质时，局部电击穿就可能发生，电击穿处的电弧放电所产生的能量足以使电击穿点邻近处的金属镀层蒸发，使击穿点与周围极板隔开，电容器电气性能即可恢复正常。

32. 失效率 λ

表示元件在单位时间内发生失效的概率，数值上等于单位时间内失效的元件数与元件总数的比值。其单位为 FIT（也写成 Fit 或 fit），1FIT=1/(10^9小时）。

举例：10 000 只元件在给定条件下工作 10 000 小时出现了 10 只失效，则 λ =10/(10 000×10 000) =100 FIT。

28.Temperature coefficient of capacitance α

The change rate of capacitance with temperature measured over a specified range of temperature. It is normally expressed in parts per million per Celsius degree(10^{-6}/℃)and referred to 20℃.

$$\alpha_1 = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

C_I: Capacitance at temperature T_I.

C_0: Capacitance at temperature T_0(20±2)℃.

29.Climatic category

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes,(IEC 60068-1:example 40/85/56).

40/85/56

- days relevant to the damp heat test (56days)
- the upper category temperature(+85℃)
- the lower category temperature(-40℃)

30.Insulation Resistance(IR) / Time Constant (τ)

The insulation resistance is the ratio between an applied D.C. voltage and the resulting leakage current after a minute of charge. It is expressed in MΩ. The time constant is expressed in seconds with the following formula:

$$\tau\,[s] = IR[M\Omega] \times C_N\,[\mu F]$$

In general, Insulation resistance is used for describing smaller capacitance capacitors' insulation character, Time Constant for describing bigger one's (example:C_N＞0.33 μF).

In addition, if the capacitor with larger capacitance couldn't fully charge in one minute, we may choose 5min, 10min, even longer time as charging time, or it is to be determined by bothpurchaser and manufacturer.

31.Self-healing(Only for metallized film capacitor)

Process by which the electrical properties of the capacitor, after a local breakdown of the dielectric, are rapidly and essentially restored to the values before the breakdown.

The metal coatings of the metallized film, which are vacuum-deposited directly onto the plastic film, have a thickness of only several tens nm. At weak points or impurities in the dielectric, a dielectric breakdown would occur. The energy released by the arc discharge in the breakdown channel is sufficient to totally evaporate the thin metal coating in the vicinity of the channel. The insulated region thus resulting around the former faulty area will cause the capacitor to regain its full operation ability.

32. Failure rate λ

It indicates the failure probability of components in unit time and the value is the number of failure components in unit time compared to the total number of components. The unit of λ is FIT (also expressed as Fit or fit) and 1 FIT=1/(10^9 hrs).

For example, 10 000 pcs of components work at given conditions for 10 000 hrs and 10 pcs of components failed, so λ =10/(10 000×10 000) =100 FIT.

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四、电容器的预期寿命

电容器的预期寿命与电容器的运行电压及热点温度有关。对于应用在不同场合的电容器,它们的设计寿命是不同的。一般而言，应用在直流滤波电路中电容器,在额定电压及热点温度为 70℃的应用条件下，它们的预期寿命可达到 100 000h。

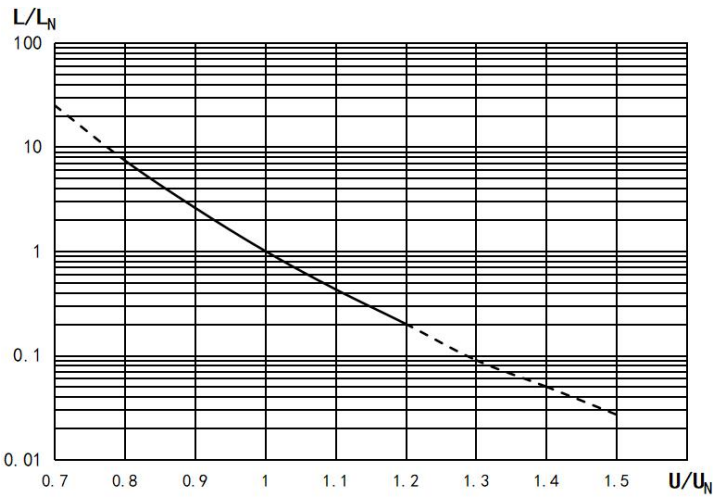
电容器的预期寿命是一个基于实践经验和理论计算的统计学数值。以下图片是电容器的预期寿命与运行电压及热点温度之间的特性曲线，仅仅作为理论参考。对于工作条件与额定条件有差别的情况，可以联系我们的技术部门。

三、Expected lifetime of the capacitor

The expected lifetime of the capacitor depends on the applied voltage and the hot spot temperature during operation. For capacitors applied in different situation, the designed average service lifes are different. Generally speaking, capacitors used in DC-Link circuits will have a expected lifetime of probable 100 000h at rated voltage and 70℃ hot spot temperature. Expected lifetime is a statistical value calculated on the basis of experience and on theoretical evaluations. The following diagrams show the correlation between expected life, opera-ting voltage and hot spot temperature. The diagrams should be considered only as a theoretical reference. Please consult our technical department in case of working condition different fromthe rated ones.

Expected life VS voltage

（The diagrams should be considered only as a theoretical reference）

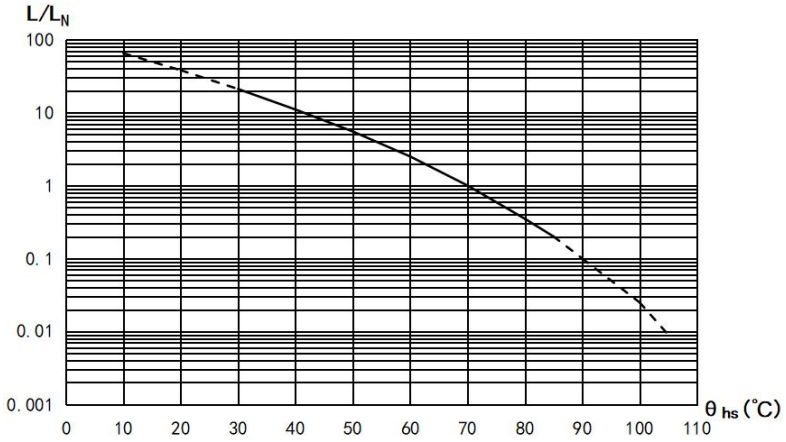


L_N: Expected life at rated voltage U_N

L: Expected life at voltage U

Expected life VS hot spot temperature at U_N

（The diagrams should be considered only as a theoretical reference）



L_N: Expected life at 70℃ hot spot temperature

L: Expected life at θ_{hs} hot spot temperature

五、使用薄膜电容器的注意事项：

1. 工作电压：

薄膜电容器的选用取决于施加的最高电压，并受施加的电压波形、电流波形、频率、环境温度（电容器表面温度）、电容量等因数的影响。使用前请先检查电容器两端的电压波形、电流波形和频率（在高频场合，允许电压随着电容器类型的不同而改变，详细资料请参阅说明书）是否在额定值内。

2. 工作电流

通过电容器的脉冲（或交流）电流等于电容量 C 与电压上升速率的乘积，即 I=C×dV/dt。

由于电容器存在损耗，在高频或高脉冲条件下使用时，通过电容器的脉冲（或交流）电流会使电容器自身发热而有温升，将会有热击穿（冒烟、起火）的危险。因此，电容器安全使用条件不仅受额定电压（或类别电压）的限制，而且受额定电流的限制。

工作电流被认为是由击穿模式决定的脉冲电流（峰值电流，即由 dV/dt 指标所限制的）和连续电流（以峰峰值或有效值表示）组成，当使用时，需确认这两个电流都在允许范围之内。

3. 各种波形的有效值换算关系

不同的波形有效值按下面的公式计算。

五、Caution items in using plastic film capacitors

1. Operation voltage

The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value ,etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. For detail see the specification).

2. Operating Current

The pulse (or AC) current flowing through the capacitor is expressed as: I=C×dV/dt.

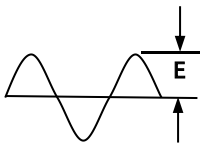
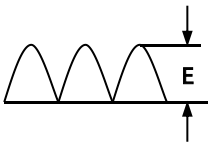
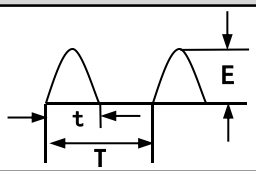
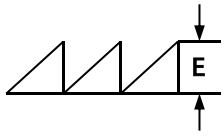
Due to the fact that dissipation factor of the capacitor will generate the internal heat under the application of high frequency or high pulse current, temperature rise in it will occur and may cause deterioration of withstanding voltage, even lead to break down (smoking or firing).Therefore, the safety use of capacitor must be within the rated voltage(or category voltage) and the permissible current.

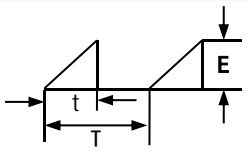
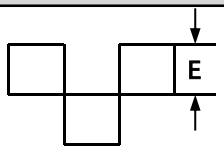
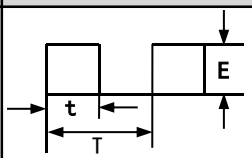
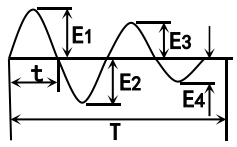
The operating current must be considered by dividing into pulse current(peak current)and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible values.

3. Calculation of rms in various waveforms

In each waveform, calculate the rms value in the following formula.

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种类(type)	1	2	3	4
波形 (waveform)				
有效值(rms)	$E/\sqrt{2}$	$E/\sqrt{2}$	$E\sqrt{t/(2T)}$	$E/\sqrt{3}$

种类(type)	5	6	7	8
波形 (waveform)				
有效值(rms)	$E\sqrt{t/(3T)}$	E	$E\sqrt{t/T}$	$\sqrt{\frac{t}{2T}(E_1^2+E_2^2+E_3^2+E_4^2)}$

4. 电容器充放电

由于电容器充放电电流取决于电容量和电压上升速率的乘积，即使是低电压充放电，也可能产生大的瞬间充放电电流，这可能会导致电容器性能的损害，比如说短路或开路。当进行充放电时，请串联一个 20Ω/V~1 000Ω/V 或更高的限流电阻，将充放电电流限制在规定的范围内。

当多个薄膜电容器并联进行耐电压测试或寿命测试时，请为每个电容器串联一个 20Ω/V~1 000Ω/V 或更高的限流电阻。详见电容器标准。

另外，在用手操作电容器之前必须对电容器进行充分放电，否则电容器内部残存的能量可能会对操作人员产生致命的伤害。

4.Charging and discharging

Because the charging and discharging current of capacitor is obtained by the product of voltage rise rate(dv/dt) and capacitance, low voltage charging and discharging may also cause deterioration of capacitor such as shorting and open due to sudden charging and discharging current. When charging and discharging, pass though a resistance of 20Ω/V to 1 000Ω/V or more to limit current.

When connecting multiple film capacitors in parallel in withstand voltage test or life test, connect a resistance of 20Ω/V to 1 000Ω/V or more in series to each capacitor. (For details see the specification).

CapacitoIn additional, capacitors must be discharged with resistor before handling. Because the capacitor hasn't discharge resistor inside, so there is residual but maybe deathful electric energy contained.

5. 因薄膜振动产生的翁鸣声

电容器的嗡鸣声是由于电容器薄膜受到两电极间库仑力的作用，产生的振动而发出的声音。施加的电压和频率波形失真越严重，所产生的嗡鸣声越大。但这种嗡鸣声对电容器不会产生任何破坏作用。

5.Buzzing noise

Any buzzing noise produced by capacitor is caused by the vibration of the film due to the coulomb force that is generated between the electrodes with opposite poles. If the waveform with a high distortion rate or frequency is applied accorss the capacitor,the buzzing noise will become louder. But the buzzing noise is of no damage to capacitor.

6. 外壳温升($\Delta\theta_{case}$)

当电容器中通过持续电流时，热量累积会使电容器内部温度升高。当温度超出允许的热点温度时，可能会导致电容器短路甚至燃烧。因此，流经电容器的电流不允许超过产品目录所规定的最大数值，而且有必要监测电容器加载时的温升。

6.Contained temperature rise ($\Delta\theta_{case}$)

When continuing current flows through the capacitor, the temperature inside the capacitor will rise, induced by accumulated heat. If the temperature exceeds allowed hot-spot temperature, it might cause a short circuit or fire. The limits described in the catalogue are not exceeded and it's necessary to check the temperature on the capacitor surface when it works.

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7. 高湿环境

如果长时间使用在高湿环境下，电容器可能会吸收潮气、电极被氧化，导致电容器损坏。如果是在 AC 条件下使用，高湿环境将会加剧电晕的影响，从而引起电容量下降、损耗增加。

8. 贮存条件

8.1 电容器不能贮存在腐蚀性的空气环境中，特别是存在氢化物、硫化物、酸、碱、盐、有机溶剂或类似物质时。
8.2 产品不能暴露在高温和高湿状态，必须保存在以下环境中：（在不拆开原包装的基础上）

温度：-40℃到 35℃
湿度：年平均值不超过 70%RH
全年任意 30 天不超过 80%RH
贮存时间：不超过 24 个月（从产品包装上的日期算起）

六、绿色产品

RoHS 符合性

在此产品目录中的日精公司的产品均符合 RoHS 指令和《电子信息产品污染控制管理办法》的要求。

七、客户订购指南

请尽量提供以下信息

1. 应用场合：如 UPS、变频器、整流器等
2. 额定电容量及允许偏差
3. 电压：包括额定电压、工作电压、纹波电压、非周期冲击电压等
4. 电流：包括最大电流、工作电流、最大峰值电流、最大冲击电流等
5. 频率：包括工作频率，脉冲频率，纹波电压的频率等
6. 工作场所：如固定场所、车辆、船舶等
7. 工作环境：如温度范围、湿度、海拔、散热方式等
8. 产品尺寸：如直径、高度或长度、宽度、高度等
9. 端子类型：如螺栓式、螺孔式、接线片、插片式等
10. 安全要求：如阻燃、防爆等
12. 预期寿命：在给定的工作条件下的预期寿命
12. 安装方式：如底部螺栓、中部卡圈、安装耳等
13. 其它

7.Humid ambient

If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidise the electrodes causing breakage of the capacitor. If case of AC application, high humidity would increase the corona effect.This phenomenon causes a drop of capacitance and a increase of capacitor losses.

8. Storage conditions

8.1 Capacitors may not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, acids, lye, salts, organic solvents or similar substances are present.
8.2 It shouldn't be located in particularly high temperature and high humidity, it must submit to the following conditions (unchanging primal package):
Temperature: -40℃ to 35℃
Humidity: Average per year≤70%RH; For 30 full days randomly distributed throughout the year≤80%RH
Storage time:≤24 months(from the date marked on the label glued to the package)

六、Green Products

RoHS Compliance
Nissei products in the catalogue are RoHS Compliant.

七、Guide for customer ordering

Please provide following information as possible as you can

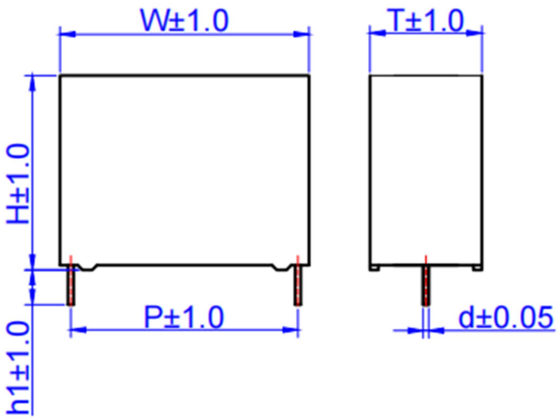
1.Application: for example, UPS, transducer, rectifier etc.
2.Rated capacitance and tolerance
3.Voltage: including rated voltage, working voltage, ripple voltage, non-recurrent surge voltage etc.
4.Current: including maximum current, working current, maximum peak current, maximum surge current etc.
5.Frequency: including working frequency, pulse frequency, frequency of ripple voltage etc.
6.Working location: for example, fixed-location, vehicle, watercraft, etc.
7.Working environment: for example, temperature range, humidity, altitude，cooling mode etc.
8.Dimensions: for example, diameter, height or length, width, height etc.
9. Terminal form: for example, stud, thread hole, lug, tab, etc.
10. Safety: for example, flame resistance, anti-explosion etc.
11. Expected lifetime: under given working conditions.
12.Fixed style: for example, bottom-stud, middle-clip, mounting ears etc.
13.Others

B12:Series/Type 系列/类型:MPY 系列

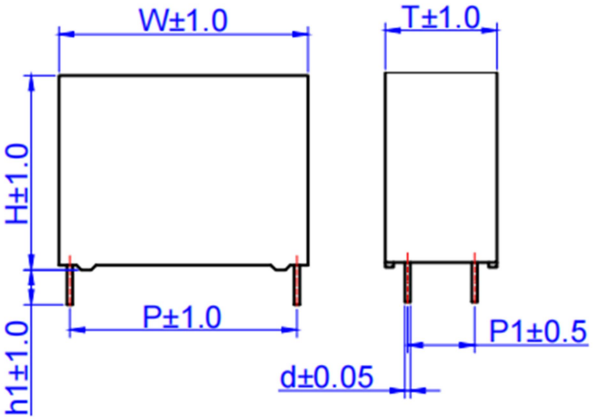
MPY 系列 PCB 用 DC-Link 电容器< 65℃/93%RH /1000h / UNDC >

MPY Series DC-Link Capacitor for PCB< 65℃/93%RH /1000h / UNDC >

■ 外形图 Outline Drawing



2Pins



4Pins

■ 特点

- 金属化聚丙烯膜结构
- 良好的电气性能
- 塑料外壳封装（UL94V-0），树脂填充
- 高性能直流滤波应用场合（如：变频器、工业和高端电源、太阳能逆变器等）

■ Features

- Metallized polyropylene film structure
- EXcellent electric property
- Plastic case (UL94V-0), filled with resin
- High performance DC filtering applications(i.e. transducers, industrial and high-end power supplies solar inverters)

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T17702(IEC61071)
气候类别 Climatic Category	40/85/56
工作温度范围（外壳）Operating Temperature Range（case）	-40℃ ~ +105℃ (+85℃ to +105℃：decreasing factor 1.35% per ℃ for $U_{N,85℃}$)
额定电压($U_{N,85℃}$) Rated Voltage($U_{N,85℃}$)	500Vdc，600Vdc，800Vdc，900Vdc，1000Vdc，1100Vdc，1200Vdc
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)
耐电压 Voltage Proof	1.5U_N(10s)
绝缘电阻 Insulation Resistance (IR×C_N)	≥10 000s（20℃，100Vdc，1min）
自感（L_s） Self Inductance（L_s）	＜1nH per mm of lead spacing
最大峰值电流 Î (A) Maxmum peak current Î (A)	Î =C·dV/dt
预期寿命 Expected life time	100 000 hours @ U_N，θ_{hs}=70℃

■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Y	C		0	5	0	0	-	5	0	5	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

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■ 产品尺寸及性能参数：Product Dimension and Characteristic Data:

UN(85℃)：500Vdc/UN(105℃)：350Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
5	32	20	11	27.5	-	0.8	65	10	100	10.6	6.0	MPYC 0500-505D0B00055
10	32	25	14	27.5	-	0.8	65	10	100	6.1	9.0	
22	32	37	22	27.5	-	0.8	65	10	100	3.9	12.0	
25	42	40	20	37.5	10.2	1	30	15	150	5.7	13.5	
30	42	40	20	37.5	10.2	1	30	15	150	4.8	14.5	
35	42	36	24	37.5	10.2	1	30	15	150	4.2	15.5	
40	42	37.5	27.5	37.5	10.2	1	30	15	150	3.8	17.5	
50	42	43	28	37.5	12.7	1.2	30	15	150	3.3	19.0	
50	42	45	30	37.5	20.3	1.2	30	15	150	3.0	20.5	
60	42	45	30	37.5	20.3	1.2	30	15	150	3.0	21.0	
75	57	45	30	52.5	12.7	1.2	15	35	350	2.6	23.0	
75	57	45	30	52.5	20.3	1.2	15	35	350	3.7	22.0	
80	57	45	30	52.5	20.3	1.2	15	35	350	3.7	22.0	
100	57	50	35	52.5	20.3	1.2	15	35	350	3.5	22.5	
110	57	50	35	52.5	20.3	1.2	15	35	350	2.9	26.0	

UN(85℃)：600Vdc/UN(105℃)：400Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
2	32	18	9	27.5	-	0.8	65	11	100	48.0	2.8	MPYC 0600-205D0B00055
3	32	20	11	27.5	-	0.8	65	11	100	32.0	4.4	
4	32	20	11	27.5	-	0.8	65	11	100	24.0	6.1	
5	32	22	13	27.5	-	0.8	65	11	100	19.5	7.2	
6	32	25	13	27.5	-	0.8	65	11	100	19.0	7.7	
7	32	25	14	27.5	-	0.8	65	11	100	16.0	8.8	
8	32	28	14	27.5	-	0.8	65	11	100	14.0	10.5	
9	32	28	17	27.5	-	0.8	65	11	100	12.5	11.6	
10	32	28	17	27.5	-	0.8	65	11	100	11.5	12.7	
12	32	33	18	27.5	-	0.8	65	11	100	11.0	13.2	
12	32	33	18	27.5	10.2	0.8	65	11	100	9.5	15.4	
15	32	37	22	27.5	-	0.8	65	11	100	9.0	13.2	
15	32	37	22	27.5	10.2	0.8	65	11	100	7.5	19.3	
18	32	37	22	27.5	-	0.8	65	11	100	8.0	13.2	
18	32	37	22	27.5	12.7	0.8	65	11	100	6.5	23.1	
10	42	26	15	37.5	-	1	30	20	175	19.5	6.6	
12	42	30	16	37.5	-	1	30	20	175	16.5	7.7	
15	42	30	16	37.5	-	1	30	20	175	13.0	9.9	
20	42	40	20	37.5	10.2	1	30	20	175	10.0	13.2	
22	42	40	20	37.5	10.2	1	30	20	175	9.0	14.9	
25	42	40	20	37.5	12.7	1	30	20	175	8.0	16.5	
30	42	44	24	37.5	12.7	1	30	20	175	6.5	20.4	
35	42	45	30	37.5	12.7	1.2	30	20	175	6.0	22.0	
35	42	45	30	37.5	20.3	1.2	30	20	175	6.0	22.0	
40	42	45	30	37.5	12.7	1.2	30	20	175	5.5	25.3	
40	42	45	30	37.5	20.3	1.2	30	20	175	5.5	25.3	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

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UN(85℃)：600Vdc/UN(105℃)：400Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
45	42	50	35	37.5	12.7	1.2	30	20	175	5.0	28.1	
45	42	50	35	37.5	20.3	1.2	30	20	175	5.0	28.1	
50	42	50（46）	35	37.5	20.3	1.2	30	20	175	4.5	31.4	
55	42	50	35	37.5	20.3	1.2	30	20	175	4.0	34.7	
60	42	55	40	37.5	20.3	1.2	30	20	175	3.5	38.0	
65	42	55	40	37.5	20.3	1.2	30	20	175	3.5	40.7	
70	42	55	40	37.5	20.3	1.2	30	20	175	3.0	44.0	
75	42	60	45	37.5	20.3	1.2	30	20	175	3.0	47.3	
80	42	60	45	37.5	20.3	1.2	30	20	175	3.0	50.1	
85	42	60	45	37.5	20.3	1.2	30	20	175	2.5	53.4	
40	57	45	25	52.5	12.7	1.2	15	36	350	10.0	13.2	
45	57	45	25	52.5	12.7	1.2	15	36	350	9.0	14.9	
50	57	45	25	52.5	12.7	1.2	15	36	350	8.0	16.5	
55	57	45	30	52.5	12.7	1.2	15	36	350	7.5	18.2	
55	57	45	30	52.5	20.3	1.2	15	36	350	7.5	18.2	
60	57	45	30	52.5	12.7	1.2	15	36	350	6.5	20.4	
60	57	45	30	52.5	20.3	1.2	15	36	350	6.5	20.4	
65	57	50	35	52.5	12.7	1.2	15	36	350	6.0	22.0	
65	57	50	35	52.5	20.3	1.2	15	36	350	6.0	22.0	
70	57	50	35	52.5	20.3	1.2	15	36	350	6.0	23.7	
75	57	50	35	52.5	20.3	1.2	15	36	350	5.5	25.3	
80	57	50	35	52.5	20.3	1.2	15	36	350	5.0	27.0	
85	57	50	35	52.5	20.3	1.2	15	36	350	5.0	27.5	
90	57	55	40	52.5	20.3	1.2	15	36	350	5.0	28.1	
95	57	55	40	52.5	20.3	1.2	15	36	350	4.5	29.7	
100	57	55	40	52.5	20.3	1.2	15	36	350	4.5	31.4	
110	57	55	45	52.5	20.3	1.2	15	36	350	4.0	34.7	
120	57	65	45	52.5	20.3	1.2	15	36	350	3.5	38.0	
130	57	65	45	52.5	20.3	1.2	15	36	350	3.5	40.7	
140	57	65	45	52.5	20.3	1.2	15	36	350	3.0	44.0	

U_N(85℃)：800Vdc/ U_N(105℃)：560Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
2	32	18	9	27.5	-	0.8	65	10	95	45.5	2.8	MPYC 0800-205D0B00055
3	32	20	11	27.5	-	0.8	65	10	95	30.5	4.4	
3.3	32	22	13	27.5	-	0.8	65	10	95	19.0	7.7	
4	32	25	13	27.5	-	0.8	65	10	95	23.0	6.1	
5	32	25	14	27.5	-	0.8	65	10	95	18.5	7.7	
6	32	28	17	27.5	-	0.8	65	10	95	15.5	9.4	
7	32	28	17	27.5	-	0.8	65	10	95	13.0	11.0	
8	32	33	18	27.5	-	0.8	65	10	95	12.5	11.6	
8	32	33	18	27.5	10.2	0.8	65	10	95	11.5	12.7	
9	32	33	18	27.5	-	0.8	65	10	95	11.5	12.7	
9	32	33	18	27.5	10.2	0.8	65	10	95	10.5	14.3	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

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UN(85℃)：800Vdc/UN(105℃)：560Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
10	32	37	22	27.5	-	0.8	65	10	95	11.0	13.2	MPYC 0800-106D0B00055
10	32	37	22	27.5	10.2	0.8	65	10	95	9.5	16.0	
11	32	37	22	27.5	-	0.8	65	10	95	10.0	13.2	
11	32	37	22	27.5	10.2	0.8	65	10	95	8.5	17.6	
12	32	37	22	27.5	-	0.8	65	10	95	9.5	13.2	
12	32	37	22	27.5	10.2	0.8	65	10	95	8.0	17.6	
13	32	37	22	27.5	-	0.8	65	10	95	9.0	13.2	
13	32	37	22	27.5	12.7	0.8	65	10	95	8.5	17.6	
14	32	37	22	27.5	-	0.8	65	10	95	8.5	13.2	
8	42	26	15	37.5	-	1	30	18	160	22.5	5.5	
9	42	30	16	37.5	-	1	30	18	160	20.0	6.6	
10	42	30	16	37.5	-	1	30	18	160	18.0	7.2	
12	42	30	16	37.5	-	1	30	18	160	15.0	8.8	
15	42	40	20	37.5	10.2	1	30	18	160	12.0	11.0	
20	42	44	24	37.5	12.7	1	30	18	160	9.0	14.9	
25	42	44	24	37.5	12.7	1	30	18	160	7.5	18.2	
30	42	45	30	37.5	12.7	1.2	30	18	160	6.0	22.0	
30	42	45	30	37.5	20.3	1.2	30	18	160	6.0	22.0	
35	42	50	35	37.5	20.3	1.2	30	18	160	5.5	24.2	
40	42	50	35	37.5	20.3	1.2	30	18	160	5.0	27.5	
45	42	55	40	37.5	20.3	1.2	30	18	160	4.5	30.8	
50	42	55	40	37.5	20.3	1.2	30	18	160	4.0	34.1	
55	42	55	40	37.5	20.3	1.2	30	18	160	3.5	38.0	
60	42	60	45	37.5	20.3	1.2	30	18	160	3.5	41.3	
65	42	60	45	37.5	20.3	1.2	30	18	160	3.0	44.6	
25	57	45	25	52.5	12.7	1.2	15	33	320	14.5	8.8	
30	57	45	25	52.5	12.7	1.2	15	33	320	12.0	11.0	
35	57	45	25	52.5	12.7	1.2	15	33	320	10.5	13.0	
40	57	45	30	52.5	12.7	1.2	15	33	320	9.0	14.9	
40	57	45	30	52.5	20.3	1.2	15	33	320	9.0	14.9	
45	57	45	30	52.5	12.7	1.2	15	33	320	8.0	16.5	
45	57	45	30	52.5	20.3	1.2	15	33	320	8.0	16.5	
50	57	50	35	52.5	12.7	1.2	15	33	320	7.5	18.2	
50	57	50	35	52.5	20.3	1.2	15	33	320	7.5	18.2	
55	57	50	35	52.5	20.3	1.2	15	33	320	6.5	20.4	
60	57	50	35	52.5	20.3	1.2	15	33	320	6.0	22.0	
65	57	55	40	52.5	20.3	1.2	15	33	320	5.5	23.7	
70	57	55	40	52.5	20.3	1.2	15	33	320	5.5	25.9	
75	57	55	40	52.5	20.3	1.2	15	33	320	5.0	27.5	
80	57	55	40	52.5	20.3	1.2	15	33	320	5.0	28.1	
85	57	55	45	52.5	20.3	1.2	15	33	320	4.5	29.2	
90	57	55	45	52.5	20.3	1.2	15	33	320	4.5	30.8	
95	57	65	45	52.5	20.3	1.2	15	33	320	4.0	32.5	
100	57	65	45	52.5	20.3	1.2	15	33	320	4.0	34.1	
110	57	65	45	52.5	20.3	1.2	15	33	320	3.5	38.0	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

NISSEI

U_N(85℃)：900Vdc/U_N(105℃)：650Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
1	32	18	9	27.5	-	0.8	70	9	90	86.0	1.7	MPYC 0900-105D0B00055
2	32	20	11	27.5	-	0.8	70	9	90	43.0	3.3	
3	32	22	13	27.5	-	0.8	70	9	90	29.0	5.0	
4	32	25	13	27.5	-	0.8	70	9	90	21.5	6.6	
5	32	28	17	27.5	-	0.8	70	9	90	17.5	8.3	
6	32	33	18	27.5	-	0.8	70	9	90	18.0	7.2	
6	32	33	18	27.5	10.2	0.8	70	9	90	14.5	9.9	
7	32	33	18	27.5	-	0.8	70	9	90	13.0	11.0	
7	32	33	18	27.5	10.2	0.8	70	9	90	12.5	11.6	
8	32	37	22	27.5	-	0.8	70	9	90	11.5	12.1	
8	32	37	22	27.5	10.2	0.8	70	9	90	11.0	13.2	
9	32	37	22	27.5	-	0.8	70	9	90	10.5	13.2	
9	32	37	22	27.5	12.7	0.8	70	9	90	10.0	14.9	
10	32	37	22	27.5	-	0.8	70	9	90	12.0	13.2	
10	32	37	22	27.5	12.7	0.8	70	9	90	9.0	16.5	
4.7	42	26	15	37.5	-	1	35	17	150	36.0	3.3	
5	42	26	15	37.5	-	1	35	17	150	33.5	3.9	
6	42	26	15	37.5	-	1	35	17	150	28.0	4.4	
7	42	30	16	37.5	-	1	35	17	150	24.0	5.5	
8	42	30	16	37.5	-	1	35	17	150	21.0	6.1	
10	42	33	18	37.5	10.2	1	35	17	150	17.0	7.7	
12	42	37	22	37.5	10.2	1	35	17	150	14.0	9.4	
15	42	37	22	37.5	12.7	1	35	17	150	11.5	11.6	
18	42	44	24	37.5	12.7	1	35	17	150	9.5	13.8	
20	42	44	24	37.5	12.7	1	35	17	150	8.5	15.4	
25	42	45	30	37.5	12.7	1.2	35	17	150	7.0	19.3	
25	42	45	30	37.5	20.3	1.2	35	17	150	7.0	19.3	
30	42	50	35	37.5	20.3	1.2	35	17	150	6.0	23.7	
35	42	50	35	37.5	20.3	1.2	35	17	150	5.5	25.3	
40	42	55	40	37.5	20.3	1.2	35	17	150	4.5	29.2	
45	42	60	45	37.5	20.3	1.2	35	17	150	4.0	33.0	
50	42	60	45	37.5	20.3	1.2	35	17	150	4.0	36.9	
15	57	45	25	52.5	10.2	1.2	15	31	300	22.5	5.5	
20	57	45	25	52.5	12.7	1.2	15	31	300	17.0	7.7	
25	57	45	25	52.5	12.7	1.2	15	31	300	13.5	9.9	
30	57	45	30	52.5	12.7	1.2	15	31	300	11.5	11.6	
30	57	45	30	52.5	20.3	1.2	15	31	300	11.5	11.6	
35	57	45	30	52.5	12.7	1.2	15	31	300	10.0	13.8	
35	57	45	30	52.5	20.3	1.2	15	31	300	10.0	13.8	
40	57	50	35	52.5	20.3	1.2	15	31	300	8.5	15.4	
45	57	50	35	52.5	20.3	1.2	15	31	300	7.5	17.6	
50	57	50	35	52.5	20.3	1.2	15	31	300	7.0	19.3	
55	57	55	40	52.5	20.3	1.2	15	31	300	6.5	21.5	
60	57	55	40	52.5	20.3	1.2	15	31	300	6.0	23.7	
65	57	55	45	52.5	20.3	1.2	15	31	300	5.5	25.3	
70	57	65	45	52.5	20.3	1.2	15	31	300	5.0	27.5	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

NISSEI

U_N(85℃)：900Vdc/U_N(105℃)：650Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
75	57	65	45	52.5	20.3	1.2	15	31	300	5.0	28.1	MPYC 0900-756D0B00055
80	57	65	45	52.5	20.3	1.2	15	31	300	4.5	29.2	
85	57	65	45	52.5	20.3	1.2	15	31	300	4.5	31.4	

UN(85℃)：1000Vdc/UN(105℃)：700Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
1	32	18	9	27.5	-	0.8	75	8	80	76.5	1.7	MPYC 1000-105D0B00055
2	32	22	13	27.5	-	0.8	75	8	80	38.5	3.9	
3	32	25	14	27.5	-	0.8	75	8	80	25.5	5.5	
4	32	28	17	27.5	-	0.8	75	8	80	19.5	7.2	
5	32	33	18	27.5	-	0.8	75	8	80	15.5	9.4	
6	32	33	18	27.5	-	0.8	75	8	80	15.0	9.4	
6	32	33	18	27.5	10.2	0.8	75	8	80	14.0	10.5	
7	32	37	22	27.5	-	0.8	75	8	80	14.5	9.9	
7	32	37	22	27.5	12.7	0.8	75	8	80	11.5	12.7	
8	32	37	22	27.5	-	0.8	75	8	80	13.0	11.6	
8	32	37	22	27.5	12.7	0.8	75	8	80	10.0	14.3	
5	42	26	15	37.5	-	1	37	15	140	31.5	3.9	
6	42	30	16	37.5	-	1	37	15	140	26.0	5.0	
7	42	33	18	37.5	-	1	37	15	140	22.5	5.5	
8	42	33	18	37.5	-	1	37	15	140	19.5	6.6	
10	42	40	20	37.5	10.2	1	37	15	140	16.0	8.3	
12	42	37	22	37.5	12.7	1	37	15	140	13.0	9.9	
12	42	37	22	37.5	-	1	37	15	140	15.0	8.8	
15	42	44	24	37.5	12.7	1	37	15	140	10.5	12.7	
18	42	45	30	37.5	12.7	1.2	37	15	140	9.0	14.9	
18	42	45	30	37.5	20.3	1.2	37	15	140	9.0	14.9	
20	42	45	30	37.5	12.7	1.2	37	15	140	8.0	16.5	
20	42	45	30	37.5	20.3	1.2	37	15	140	8.0	16.5	
25	42	50	35	37.5	20.3	1.2	37	15	140	6.5	20.9	
30	42	55	40	37.5	20.3	1.2	37	15	140	5.5	25.3	
35	42	55	40	37.5	20.3	1.2	37	15	140	5.0	27.5	
40	42	60	45	37.5	20.3	1.2	37	15	140	4.5	31.4	
15	57	45	25	52.5	12.7	1.2	17	28	280	21.0	6.1	
20	57	45	25	52.5	12.7	1.2	17	28	280	16.0	8.3	
25	57	45	25	52.5	12.7	1.2	17	28	280	12.5	10.5	
30	57	45	30	52.5	12.7	1.2	17	28	280	10.5	12.7	
30	57	45	30	52.5	20.3	1.2	17	28	280	10.5	12.7	
35	57	50	35	52.5	20.3	1.2	17	28	280	9.0	14.9	
40	57	50	35	52.5	20.3	1.2	17	28	280	8.0	16.5	
45	57	55	40	52.5	20.3	1.2	17	28	280	7.0	18.7	
50	57	55	45	52.5	20.3	1.2	17	28	280	6.5	20.9	
55	57	55	45	52.5	20.3	1.2	17	28	280	6.0	23.1	
60	57	65	45	52.5	20.3	1.2	17	28	280	5.5	25.3	
65	57	65	45	52.5	20.3	1.2	17	28	280	5.0	27.5	
70	57	65	45	52.5	20.3	1.2	17	28	280	4.5	29.2	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

NISSEI

U_N(85℃)：1100Vdc/U_N(105℃)：800Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
1	32	20	11	27.5	-	0.8	80	8	70	59.5	2.2	MPYC 1200-105D0B00055
1.5	32	22	13	27.5	-	0.8	80	8	70	56.0	2.2	
2	32	25	13	27.5	-	0.8	80	8	70	28.0	5.0	
3	32	30	16	27.5	-	0.8	80	8	70	20.5	7.2	
4	32	33	18	27.5	-	0.8	80	8	70	15.5	9.4	
5	32	37	22	27.5	-	0.8	80	8	70	14.0	10.5	
5	32	37	22	27.5	10.2	0.8	80	8	70	12.5	11.6	
6	32	37	22	27.5	-	0.8	80	8	70	12.5	11.6	
6	32	37	22	27.5	10.2	0.8	80	8	70	10.5	13.8	
3	42	26	15	37.5	-	1	40	15	130	48.5	2.8	
4	42	26	15	37.5	-	1	40	15	130	36.5	3.3	
4.7	42	33	18	37.5	10.2	1	40	15	130	31.0	3.9	
5	42	33	18	37.5	-	1	40	15	130	29.0	4.4	
6	42	33	18	37.5	-	1	40	15	130	24.5	5.5	
7	42	40	20	37.5	10.2	1	40	15	130	21.0	6.1	
8	42	37	22	37.5	10.2	1	40	15	130	18.5	7.2	
9	42	37	22	37.5	12.7	1	40	15	130	16.5	8.3	
10	42	44	24	37.5	12.7	1	40	15	130	14.5	8.8	
12	42	44	24	37.5	12.7	1	40	15	130	12.5	10.5	
12	42	44	24	37.5	-	1	40	15	130	14.0	9.4	
15	42	45	30	37.5	12.7	1.2	40	15	130	10.0	13.2	
15	42	45	30	37.5	20.3	1.2	40	15	130	10.0	13.2	
18	42	50	35	37.5	20.3	1.2	40	15	130	8.5	16.0	
20	42	50	35	37.5	20.3	1.2	40	15	130	7.5	18.2	
25	42	55	40	37.5	20.3	1.2	40	15	130	6.0	22.6	
30	42	60	45	37.5	20.3	1.2	40	15	130	5.0	27.0	
15	57	45	25	52.5	12.7	1.2	20	27	260	19.5	6.6	
20	57	45	30	52.5	12.7	1.2	20	27	260	14.5	8.8	
20	57	45	30	52.5	20.3	1.2	20	27	260	14.5	8.8	
25	57	50	35	52.5	20.3	1.2	20	27	260	12.0	11.0	
30	57	50	35	52.5	20.3	1.2	20	27	260	10.0	13.2	
35	57	55	40	52.5	20.3	1.2	20	27	260	8.5	15.4	
40	57	55	40	52.5	20.3	1.2	20	27	260	8.0	17.1	
45	57	55	45	52.5	20.3	1.2	20	27	260	7.0	18.7	
50	57	65	45	52.5	20.3	1.2	20	27	260	6.5	20.9	
55	57	65	45	52.5	20.3	1.2	20	27	260	6.0	23.1	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR 值为 f=10KHz 下的典型值　　ESR typical values at 10KHz

NISSEI

U_N(85℃)：1200Vdc/U_N(105℃)：850Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	Irms (A)	产品代码 Part number
								1KHz	10KHz			
1	32	20	11	27.5	-	0.8	90	7	55	39.5	5.0	MPYC 1200-105D0B00055
2	32	25	14	27.5	-	0.8	90	7	55	26.5	5.5	
3	32	28	17	27.5	-	0.8	90	7	55	17.5	8.3	
4	32	33	18	27.5	-	0.8	90	7	55	14.0	10.5	
5	32	37	22	27.5	-	0.8	90	7	55	13.0	11.0	
5	32	37	22	27.5	10.2	0.8	90	7	55	11.5	12.7	
3	42	26	15	37.5	-	1	45	13	100	37.5	3.3	
4	42	30	16	37.5	-	1	45	13	100	28.0	4.4	
5	42	33	18	37.5	-	1	45	13	100	22.5	5.5	
6	42	40	20	37.5	-	1	45	13	100	19.0	7.2	
7	42	37	22	37.5	10.2	1	45	13	100	16.0	8.3	
8	42	44	24	37.5	12.7	1	45	13	100	14.0	9.4	
9	42	44	24	37.5	12.7	1	45	13	100	12.5	10.5	
10	42	44	24	37.5	12.7	1	45	13	100	11.5	11.6	
12	42	45	30	37.5	12.7	1.2	45	13	100	9.5	13.8	
12	42	45	30	37.5	20.3	1.2	45	13	100	9.5	13.8	
15	42	50	35	37.5	20.3	1.2	45	13	100	7.5	17.6	
18	42	50	35	37.5	20.3	1.2	45	13	100	7.0	19.8	
20	42	55	40	37.5	20.3	1.2	45	13	100	6.0	22.0	
25	42	60	45	37.5	20.3	1.2	45	13	100	5.0	27.5	
12	57	45	25	52.5	12.7	1.2	23	24	200	20.0	6.6	
15	57	45	25	52.5	12.7	1.2	23	24	200	16.0	8.3	
20	57	45	30	52.5	12.7	1.2	23	24	200	12.0	11.0	
20	57	45	30	52.5	20.3	1.2	23	24	200	12.0	11.0	
25	57	50	35	52.5	20.3	1.2	23	24	200	10.0	13.8	
30	57	55	40	52.5	20.3	1.2	23	24	200	8.0	16.5	
35	57	55	45	52.5	20.3	1.2	23	24	200	7.0	19.3	
40	57	65	45	52.5	20.3	1.2	23	24	200	6.0	22.0	
45	57	65	45	52.5	20.3	1.2	23	24	200	5.5	24.8	

备注：

“-”表示客户要求的容量偏差“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

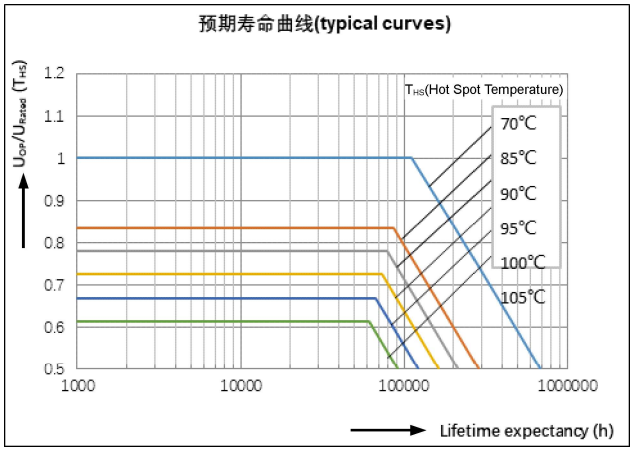
ESR 值为 f=10KHz 下的典型值 ESR typical values at 10KHz

I_{RMS} 值为 f=10KHz、Tamb=70℃、散热条件 10W/m^2/℃、△Tcase≤20℃的最大电流有效值.

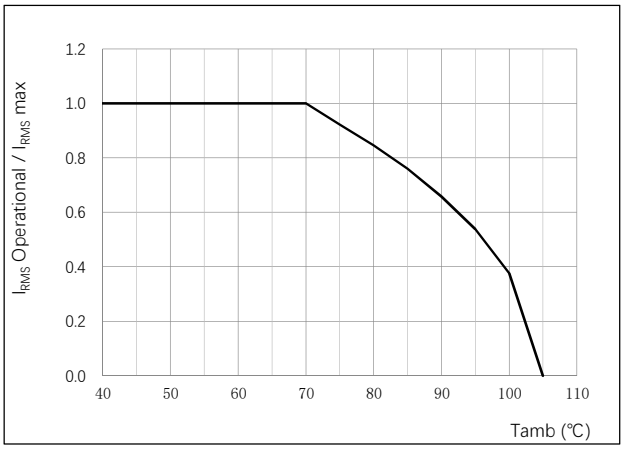
I_{RMS} is the maximum R.M.S current at 10KHz、Tamb=70℃、△Tcase≤20℃.(Coefficient of heat dissipation： 10W/m^2/℃)

NISSEI

■预期寿命曲线
Expected Lifetime Curves:

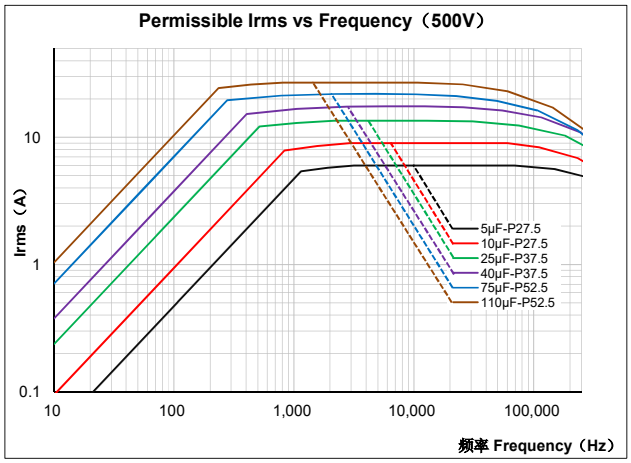


■纹波电流降额曲线
I_{RMS}Derating vs Ambient Temperature:

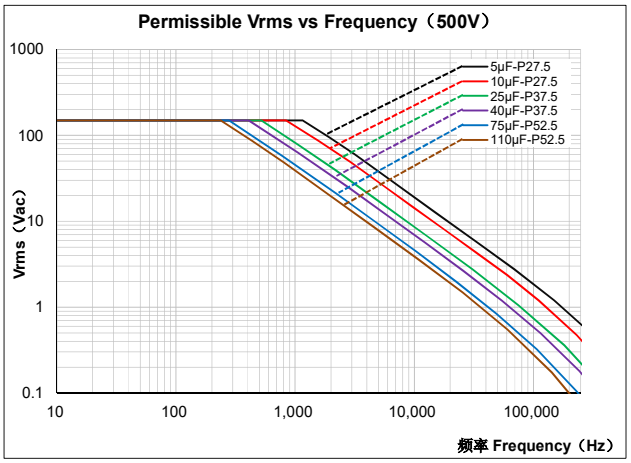


■有效值电流频率曲线 Permissible Vrms &Irms vs Frequency

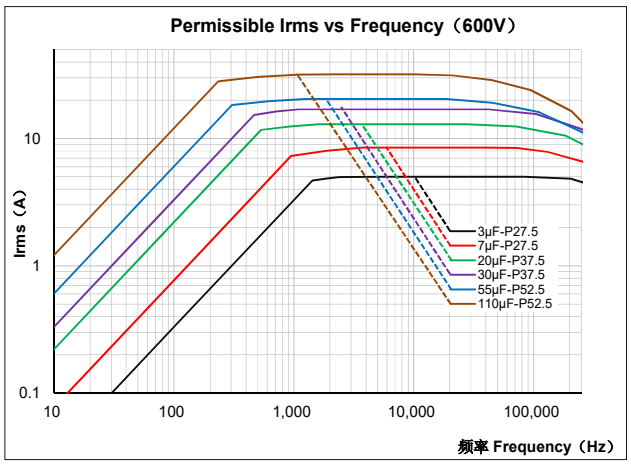
500V$_{NDC}$ P27.5~P52.5(Irms)



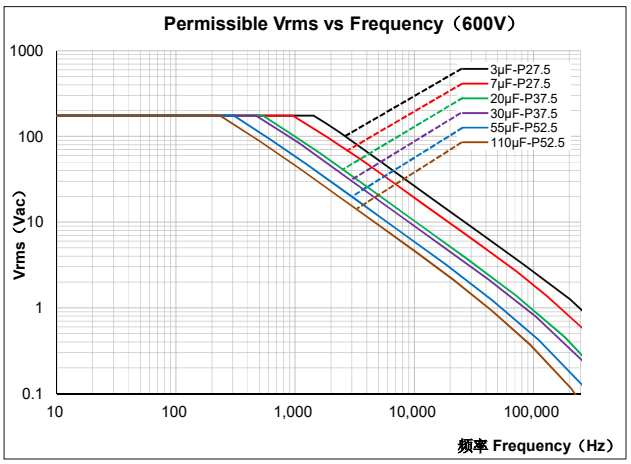
500V$_{NDC}$ P27.5~P52.5(Vrms)



600V$_{NDC}$ P27.5~P52.5(Irms)

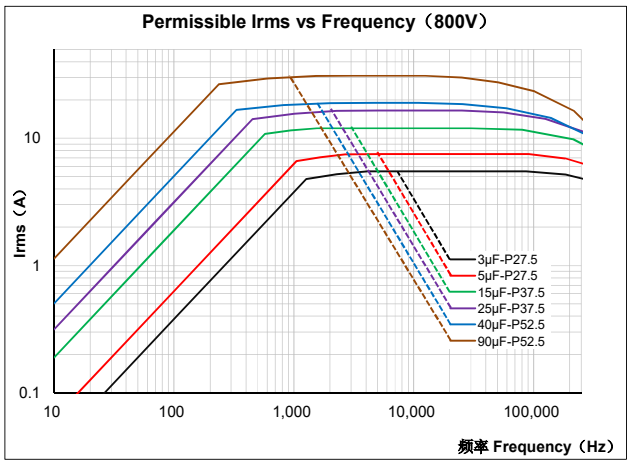


600V$_{NDC}$ P27.5~P52.5(Vrms)

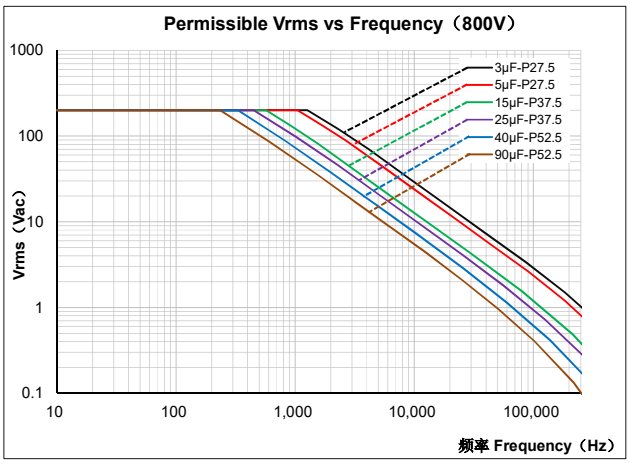


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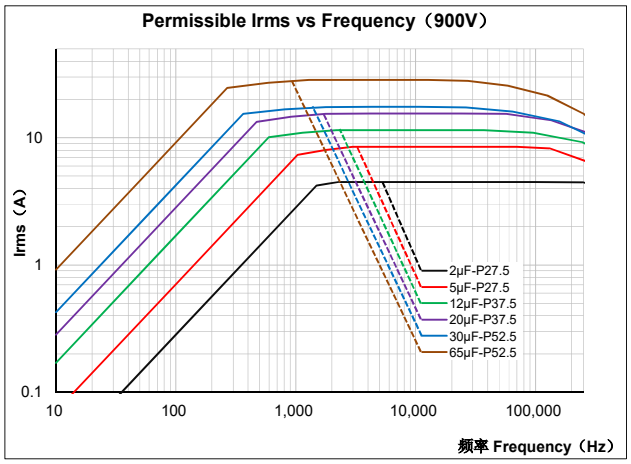
800V$_{NDC}$ P27.5~P52.5(Irms)



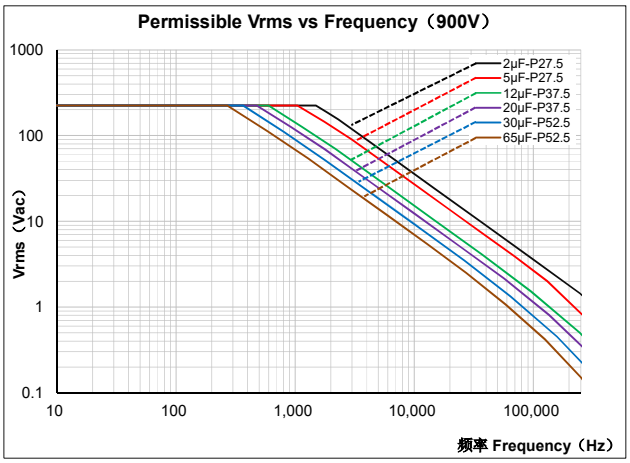
800V$_{NDC}$ P27.5~P52.5(Vrms)



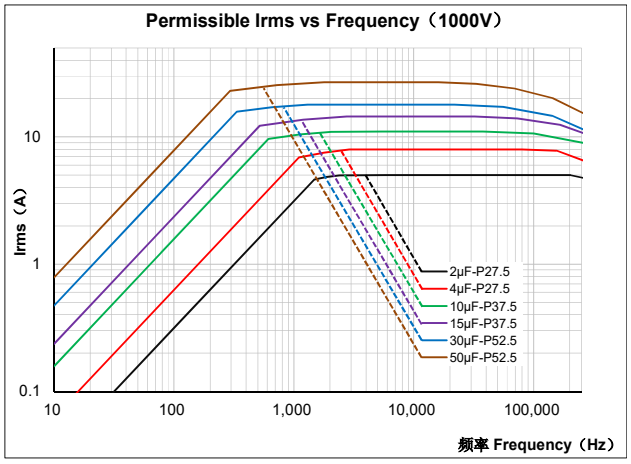
900V$_{NDC}$ P27.5~P52.5(Irms)



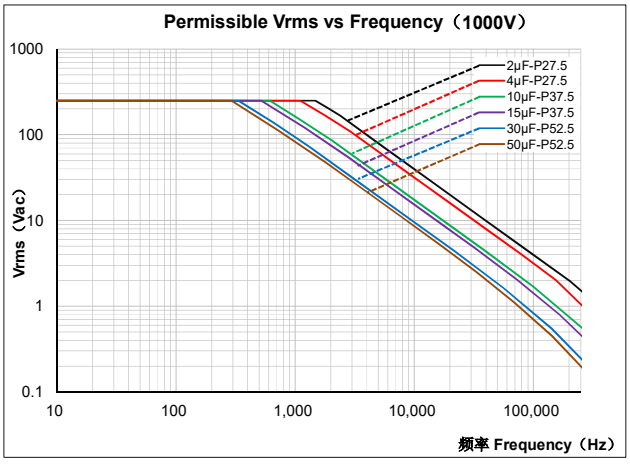
900V$_{NDC}$ P27.5~P52.5(Vrms)



1000V$_{NDC}$ P27.5~P52.5(Irms)

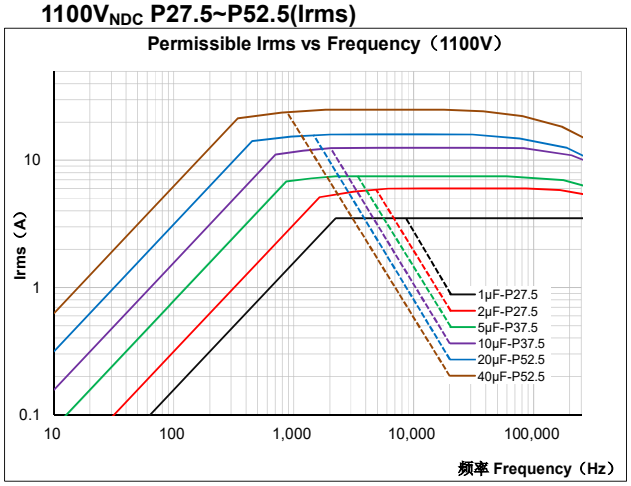


1000V$_{NDC}$ P27.5~P52.5(Vrms)

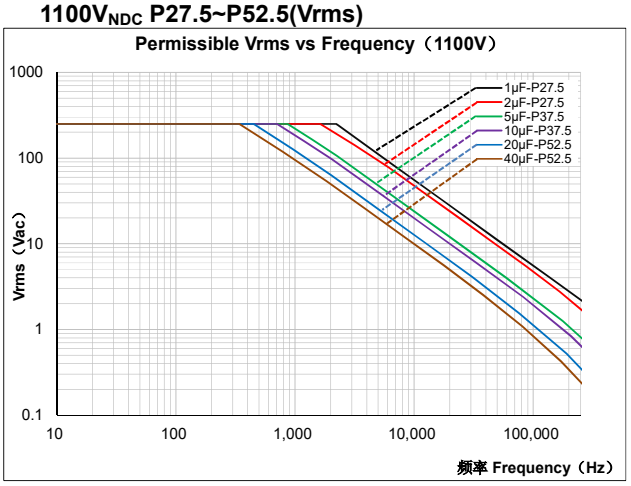


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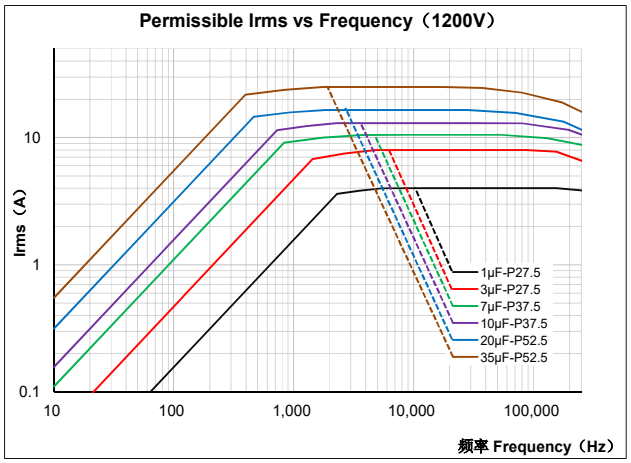
1100V$_{NDC}$ P27.5~P52.5(Irms)



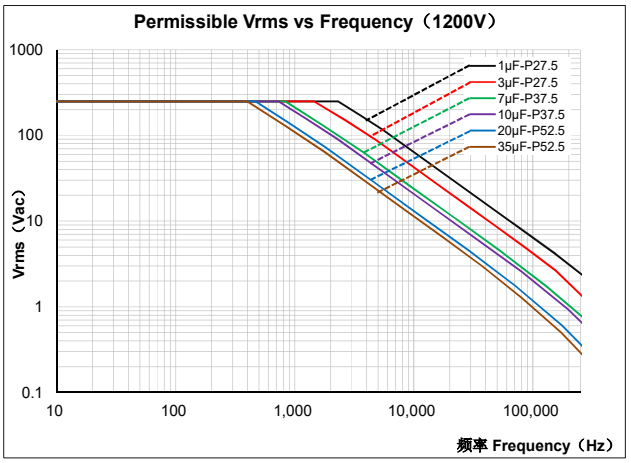
1100V$_{NDC}$ P27.5~P52.5(Vrms)



1200V$_{NDC}$ P27.5~P52.5(Irms)



1200V$_{NDC}$ P27.5~P52.5(Vrms)



注：

纹波电流或纹波电压值基于 Tamb=70℃条件下；

产品散热系数：10W/m^2/℃；

当 f≥100KHz，Irms 和 Vrms 仅供参考。

Note:

Permissible Vrms &Irms curves frequency f at Tamb=70℃;

Coefficient of heat dissipation：10W/m^2/℃;

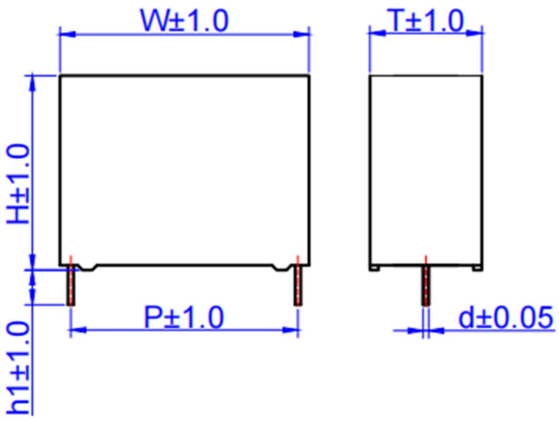
At f≥100KHz，Irms & Vrms are only for reference.

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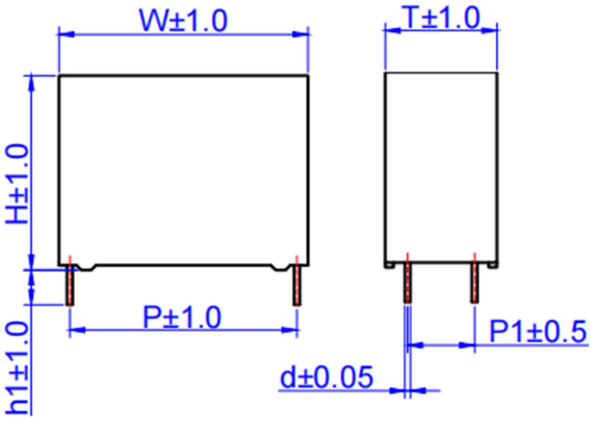
B13:Series/Type 系列/类型:MPY(V)系列

MPY(V)型 DC-Link 电容器(PCB) THB 防潮系列< 85℃/85%RH /1000h / UNDC >
MPY(V) Type DC-Link Capacitor (PCB)< 85℃/85%RH /1000h / UNDC > Temperature Humidity Bias(THB) series

■ 外形图 Outline Drawing



2Pins



4Pins

■ 特点

金属化聚丙烯膜结构
良好的电气性能
塑料外壳封装（UL94V-0）,树脂填充
在严苛的环境下（如高温高湿）长期应用
容量稳定性优异
高性能直流滤波应用场合（如：变频器、
工业和高端电源、太阳能逆变器等）

■ Features

Metallized polyropylene film structure
EXcellent electric property
Plastic case（UL94V-0）,filled with resin
High stability of capacitance under severe ambient condition, such as high temperature and high humidity
High performance DC filtering applications(i.e.transducers, industrial and high-end power supplies solar inverters

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T17702(IEC61071)
气候类别 Climatic Category	40/85/56
工作温度范围（外壳）Operating Temperature Range（case）	-40℃ ~ +105℃ (+85℃ to +105℃：decreasing factor 1.35% per ℃ for $U_{N,85℃}$)
额定电压($U_{N,70℃}$) Rated Voltage($U_{N,85℃}$)	500Vdc，600Vdc，800Vdc，900Vdc，1000Vdc，1100Vdc，1200Vdc
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)
耐电压 Voltage Proof	1.5U_N(10s)
绝缘电阻 Insulation Resistance (IR×C_N)	≥10 000s（20℃，100Vdc，1min）
自感（L_s） Self Inductance（L_s）	＜1nH per mm of lead spacing
最大峰值电流 Î (A) Maxmum peak current Î (A)	Î =C·dV/dt
预期寿命 Expected life time	100 000 hours @ U_N，θ_{hs}=70℃
耐湿负荷测试 THB test（Damp heat test with loading）	Tempetature：85℃±2℃；Humidity：85%±2% Voltage：$U_{N\,DC}$；Duration：1000h Capacitance change （△C/C）：≤10% Dissipation factor change（△tanδ）≤0.5%（1kHz） Insulation resistance：≥50% of the rated value

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■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Y	C	V	0	5	0	0	-	5	0	5	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

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■ 产品尺寸及性能参数：**Product Dimension and Characteristic Data:**

U_{NDC}(70℃)：500Vdc/U_{NDC}(85℃)：450Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4}) 1KHz	tgδ×(10^{-4}) 10KHz	ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
5	32	25	11	27.5	-	0.8	65	10	70	12.0	6.0	MPYCV0500-505D0B00055
6	32	28	14	27.5	-	0.8	65	10	72	10.5	7.0	
7	32	28	14	27.5	-	0.8	65	10	74	9.0	8.0	
8	32	28	14	27.5	-	0.8	65	10	75	8.0	8.5	
9	32	28	14	27.5	-	0.8	65	10	77	7.5	8.5	
10	32	30	16	27.5	-	0.8	65	11	78	7.0	9.5	
12	32	30	16	27.5	-	0.8	65	11	81	6.0	10.0	
15	32	33	18	27.5	-	0.8	65	11	86	5.0	12.0	
15	32	33	18	27.5	10.2	0.8	65	10	74	4.5	12.5	
20	32	37	22	27.5	-	0.8	65	12	98	4.5	12.0	
20	32	37	22	27.5	10.2	0.8	65	11	80	4	15.5	
15	42	30	16	37.5	-	1	30	19	167	9.5	9.0	
20	42	33.5	18.5	37.5	-	1	30	20	172	7.5	11.0	
20	42	33.5	18.5	37.5	10.2	1	30	19	162	7.0	11.5	
25	42	40	20	37.5	-	1	30	21	180	6.5	13.0	
25	42	40	20	37.5	10.2	1	30	19	166	6.0	13.5	
30	42	44	24	37.5	-	1	30	22	192	5.5	14.0	
30	42	44	24	37.5	10.2	1	30	20	172	5.0	16.0	
35	42	44	24	37.5	-	1	30	22	196	5.0	14.0	
35	42	44	24	37.5	10.2	1	30	20	174	4.5	16.5	
40	42	45	30	37.5	10.2	1.2	30	20	173	4.0	19.0	
40	42	45	30	37.5	20.3	1.2	30	20	173	4.0	19.0	
50	42	45	30	37.5	10.2	1.2	30	20	176	3.0	22.0	
50	42	45	30	37.5	20.3	1.2	30	20	176	3.0	22.0	
60	42	50	30	37.5	10.2	1.2	30	21	181	3.0	22.5	
60	42	50	30	37.5	20.3	1.2	30	21	181	3.0	22.5	
70	42	55	35	37.5	10.2	1.2	30	22	192	2.5	26.5	
70	42	55	35	37.5	20.3	1.2	30	22	192	2.5	26.5	
80	42	55	35	37.5	10.2	1.2	30	22	195	2.5	26.5	
80	42	55	35	37.5	20.3	1.2	30	22	195	2.5	26.5	
70	57	45	30	52.5	10.2	1.2	15	36	333	4.0	21.5	
70	57	45	30	52.5	20.3	1.2	15	36	333	4.0	21.5	
80	57	50	30	52.5	10.2	1.2	15	36	341	4.0	22.0	
80	57	50	30	52.5	20.3	1.2	15	36	341	4.0	22.0	
90	57	50	35	52.5	20.3	1.2	15	37	350	3.5	24.5	
100	57	50	35	52.5	20.3	1.2	15	37	353	3.0	26.5	
110	57	57	35	52.5	20.3	1.2	15	38	362	3.0	28.0	

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U_{NDC}(70℃)：600Vdc/U_{NDC}(85℃)：500Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
4	32	25	11	27.5	-	0.8	65	9	61	13.0	6.0	MPYCV0600-405D0B00055
5	32	28	14	27.5	-	0.8	65	9	62	10.5	7.0	
6	32	28	14	27.5	-	0.8	65	9	64	9.0	8.0	
7	32	30	16	27.5	-	0.8	65	9	65	8.0	9.0	
8	32	30	16	27.5	-	0.8	65	9	67	7.0	9.5	
10	32	33	18	27.5	-	0.8	65	10	70	6.0	10.0	
10	32	33	18	27.5	10.2	0.8	65	9	62	5.5	11.5	
15	32	37	22	27.5	-	0.8	65	11	81	4.5	10.0	
15	32	37	22	27.5	10.2	0.8	65	9	67	4.0	14.5	
10	42	30	16	37.5	-	1	30	17	141	12.0	8.0	
15	42	33.5	18.5	37.5	-	1	30	17	146	8.5	10.5	
15	42	33.5	18.5	37.5	10.2	1	30	17	138	8.0	10.5	
20	42	40	20	37.5	-	1	30	18	153	6.5	13.0	
20	42	40	20	37.5	10.2	1	30	17	142	6.0	13.5	
25	42	44	24	37.5	-	1	30	19	163	5.5	14.0	
25	42	44	24	37.5	10.2	1	30	17	147	5.0	16.0	
30	42	45	30	37.5	10.2	1.2	30	17	146	4.5	17.5	
30	42	45	30	37.5	20.3	1.2	30	17	146	4.5	17.5	
35	42	45	30	37.5	10.2	1.2	30	17	148	4.0	19.0	
35	42	45	30	37.5	20.3	1.2	30	17	148	4.0	19.0	
40	42	50	30	37.5	10.2	1.2	30	18	151	3.5	21.0	
40	42	50	30	37.5	20.3	1.2	30	18	151	3.5	21.0	
50	42	55	35	37.5	20.3	1.2	30	19	160	3.0	24.5	
55	42	55	35	37.5	20.3	1.2	30	19	162	2.5	26.5	
50	57	45	30	52.5	10.2	1.2	15	31	283	5.0	19.0	
50	57	45	30	52.5	20.3	1.2	15	31	283	5.0	19.0	
60	57	50	30	52.5	10.2	1.2	15	31	289	4.5	21.0	
60	57	50	30	52.5	20.3	1.2	15	31	289	4.5	21.0	
70	57	50	35	52.5	20.3	1.2	15	32	296	4.0	23.0	
80	57	57	35	52.5	20.3	1.2	15	33	303	3.5	26.0	
90	57	60	40	52.5	20.3	1.2	15	34	318	3.0	29.5	
100	57	60	40	52.5	20.3	1.2	15	34	322	3.0	29.5	
110	57	60	45	52.5	20.3	1.2	15	35	331	3.0	30.0	

NISSEI

U_{NDC}(70℃)：800Vdc/U_{NDC}(85℃)：700Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
3	32	25	11	27.5	-	0.8	65	8	53	15.0	5.5	MPYCV0800-305D0B00055
4	32	28	14	27.5		0.8	65	8	51	11.0	7.0	
5	32	28	14	27.5	-	0.8	65	8	56	9.5	7.5	
6	32	30	16	27.5	-	0.8	65	8	57	8.0	9.0	
8	32	33	18	27.5	-	0.8	65	9	61	6.5	10.5	
8	32	33	18	27.5	10.2	0.8	65	8	54	6.0	11.0	
10	32	37	22	27.5	-	0.8	65	9	66	6.0	12.0	
10	32	37	22	27.5	10.2	0.8	65	8	57	5.0	13.0	
8	42	30	16	37.5	-	1	30	15	123	13.0	7.5	
10	42	33.5	18.5	37.5	-	1	30	15	125	10.5	9.5	
10	42	33.5	18.5	37.5	10.2	1	30	15	120	10	9.5	
15	42	40	20	37.5	-	1	30	16	132	7.5	12.0	
15	42	40	20	37.5	10.2	1	30	15	124	7.0	12.5	
20	42	44	24	37.5	-	1	30	17	141	6.0	14.0	
20	42	44	24	37.5	10.2	1	30	15	128	5.5	15.0	
25	42	45	30	37.5	10.2	1.2	30	15	128	4.5	17.5	
25	42	45	30	37.5	20.3	1.2	30	15	128	4.5	17.5	
30	42	50	30	37.5	10.2	1.2	30	16	131	4.0	19.5	
30	42	50	30	37.5	20.3	1.2	30	16	131	4.0	19.5	
40	42	55	35	37.5	10.2	1.2	30	16	138	3.0	24.5	
40	42	55	35	37.5	20.3	1.2	30	16	138	3.0	24.5	
40	57	45	30	52.5	10.2	1.2	15	27	246	5.5	18.0	
40	57	45	30	52.5	20.3	1.2	15	27	246	5.5	18.0	
45	57	50	30	52.5	10.2	1.2	15	28	250	5.0	20.0	
45	57	50	30	52.5	20.3	1.2	15	28	250	5.0	20.0	
50	57	50	35	52.5	20.3	1.2	15	28	254	4.5	21.5	
55	57	50	35	52.5	20.3	1.2	15	28	256	4.0	23.0	
60	57	57	35	52.5	20.3	1.2	15	29	261	4.0	24.0	
65	57	57	35	52.5	20.3	1.2	15	29	262	3.5	26.0	
70	57	60	40	52.5	20.3	1.2	15	30	273	3.5	27.0	
75	57	60	40	52.5	20.3	1.2	15	30	275	3.5	27.0	
80	57	60	45	52.5	20.3	1.2	15	30	281	3.0	30.0	
90	57	60	45	52.5	20.3	1.2	15	31	285	3.0	30.0	

NISSEI

U_{NDC}(70℃)：900Vdc/U_{NDC}(85℃)：760Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
2	32	25	11	27.5	-	0.8	70	7	46	19.5	5.0	MPYCV0900-205D0B00055
3	32	28	14	27.5	-	0.8	70	7	48	13.5	6.5	
4	32	28	14	27.5	-	0.8	70	8	49	10.5	7.0	
5	32	30	16	27.5	-	0.8	70	8	51	9.0	8.5	
6	32	33	18	27.5	-	0.8	70	8	53	7.5	9.5	
6	32	33	18	27.5	10.2	0.8	70	7	48	7.0	10.0	
7	32	37	22	27.5	-	0.8	70	8	56	7.0	11.0	
7	32	37	22	27.5	10.2	0.8	70	8	50	6.5	12.0	
8	32	37	22	27.5	-	0.8	70	8	58	6.5	11.5	
8	32	37	22	27.5	10.2	0.8	70	8	50	6.0	12.0	
9	32	37	22	27.5	-	0.8	70	9	59	5.5	12.0	
9	32	37	22	27.5	10.2	0.8	70	8	51	5.0	13.0	
6	42	30	16	37.5	-	1	35	14	109	15.5	7.0	
9	42	33.5	18.5	37.5	-	1	35	14	112	10.5	9.5	
9	42	33.5	18.5	37.5	10.2	1	35	13	108	10.0	9.5	
12	42	40	20	37.5	-	1	35	14	116	8.5	11.0	
12	42	40	20	37.5	10.2	1	35	14	110	8.0	11.5	
15	42	44	24	37.5	-	1	35	15	122	7.0	13.5	
15	42	44	24	37.5	10.2	1	35	14	113	6.5	14.0	
20	42	45	30	37.5	10.2	1.2	35	14	113	5.0	17.0	
20	42	45	30	37.5	20.3	1.2	35	14	113	5.0	17.0	
25	42	50	30	37.5	10.2	1.2	35	14	116	4.0	19.5	
25	42	50	30	37.5	20.3	1.2	35	14	116	4.0	19.5	
30	42	55	35	37.5	10.2	1.2	35	15	120	3.5	22.5	
35	42	55	35	37.5	20.3	1.2	35	15	122	3.0	24.5	
30	57	45	30	52.5	10.2	1.2	15	24	217	6.5	17.0	
30	57	45	30	52.5	20.3	1.2	15	24	217	6.5	17.0	
35	57	50	30	52.5	10.2	1.2	15	25	221	5.5	19.0	
35	57	50	30	52.5	20.3	1.2	15	25	221	5.5	19.0	
40	57	50	35	52.5	20.3	1.2	15	25	224	5.0	20.5	
45	57	50	35	52.5	20.3	1.2	15	25	226	4.5	21.5	
50	57	57	35	52.5	20.3	1.2	15	26	230	4.0	24.0	
60	57	60	40	52.5	20.3	1.2	15	26	240	3.5	27.0	
70	57	60	45	52.5	20.3	1.2	15	27	247	3.0	30.0	

NISSEI

U_{NDC}(70℃)：1000Vdc/U_{NDC}(85℃)：850Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
2	32	25	11	27.5	-	0.8	75	7	42	18.0	5.0	MPYCV1000-205D0B00055
3	32	28	14	27.5	-	0.8	75	7	44	12.5	6.5	
4	32	30	16	27.5	-	0.8	75	7	45	9.5	8.0	
5	32	33	18	27.5	-	0.8	75	7	47	8.0	9.5	
5	32	33	18	27.5	10.2	0.8	75	7	43	7.5	9.5	
6	32	37	22	27.5	-	0.8	75	8	50	7.5	10.5	
6	32	37	22	27.5	10.2	0.8	75	7	45	7.0	11.5	
7	32	37	22	27.5	-	0.8	75	8	52	6.5	11.5	
7	32	37	22	27.5	10.2	0.8	75	7	45	6.0	12.5	
8	32	37	22	27.5	-	0.8	75	8	53	6.0	12.0	
8	32	37	22	27.5	10.2	0.8	75	7	46	5.5	13.0	
5	42	30	16	37.5	-	1	37	13	98	16.5	7.0	
7	42	33.5	18.5	37.5	-	1	37	13	100	12.0	8.5	
7	42	33.5	18.5	37.5	10.2	1	37	12	97	11.5	9	
10	42	40	20	37.5	-	1	37	13	104	9.0	11.0	
10	42	40	20	37.5	10.2	1	37	13	99	8.5	11.0	
12	42	44	24	37.5	-	1	37	14	109	8.0	12.5	
12	42	44	24	37.5	10.2	1	37	13	101	7.5	13.0	
18	42	45	30	37.5	10.2	1.2	37	13	102	5.0	17.0	
18	42	45	30	37.5	20.3	1.2	37	13	102	5.0	17.0	
20	42	50	30	37.5	10.2	1.2	37	13	103	4.5	18.5	
20	42	50	30	37.5	20.3	1.2	37	13	103	4.5	18.5	
25	42	55	35	37.5	10.2	1.2	37	13	107	4.0	21.0	
25	42	55	35	37.5	20.3	1.2	37	13	107	4.0	21.0	
20	57	45	30	52.5	10.2	1.2	17	22	193	8.5	14.5	
20	57	45	30	52.5	20.3	1.2	17	22	193	8.5	14.5	
25	57	45	30	52.5	10.2	1.2	17	22	195	7.0	16.0	
25	57	45	30	52.5	20.3	1.2	17	22	195	7.0	16.0	
30	57	50	30	52.5	10.2	1.2	17	22	198	6.0	18.0	
30	57	50	30	52.5	20.3	1.2	17	22	198	6.0	18.0	
35	57	50	35	52.5	20.3	1.2	17	23	201	5.0	20.5	
40	57	57	35	52.5	20.3	1.2	17	23	205	4.5	22.5	
50	57	60	40	52.5	20.3	1.2	17	24	214	4.0	25.5	
60	57	60	45	52.5	20.3	1.2	17	24	220	3.5	28.0	

NISSEI

U_{NDC}(70℃)：1100Vdc/U_{NDC}(85℃)：900Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
1.5	32	25	11	27.5	-	0.8	80	7	38	21.5	4.5	MPYCV1100-155D0B00055
2	32	28	14	27.5	-	0.8	80	7	39	16.5	5.5	
3	32	30	16	27.5	-	0.8	80	7	41	11.5	7.5	
4	32	33	18	27.5	-	0.8	80	7	42	9.0	9.0	
4	32	33	18	27.5	10.2	0.8	80	7	39	8.5	9.0	
5	32	37	22	27.5	-	0.8	80	7	45	8.0	10.0	
5	32	37	22	27.5	10.2	0.8	80	7	41	7.5	11.0	
6	32	37	22	27.5	-	0.8	80	7	47	6.5	11.5	
6	32	37	22	27.5	10.2	0.8	80	7	41	6.0	12.0	
4	42	30	16	37.5	-	1	40	12	89	19.0	6.5	
6	42	33.5	18.5	37.5	-	1	40	12	91	13.0	8.5	
6	42	33.5	18.5	37.5	10.2	1	40	12	88	12.5	8.5	
8	42	40	20	37.5	-	1	40	12	94	10.0	10.5	
8	42	40	20	37.5	10.2	1	40	12	90	9.5	10.5	
10	42	44	24	37.5	-	1	40	13	98	8.5	12.0	
10	42	44	24	37.5	10.2	1	40	12	92	8.0	12.5	
12	42	45	30	37.5	10.2	1.2	40	12	91	6.5	14.5	
12	42	45	30	37.5	20.3	1.2	40	12	91	6.5	14.5	
15	42	50	30	37.5	10.2	1.2	40	12	93	5.5	16.5	
15	42	50	30	37.5	20.3	1.2	40	12	93	5.5	16.5	
20	42	55	35	37.5	10.2	1.2	40	12	97	4.5	20.0	
20	42	55	35	37.5	20.3	1.2	40	12	97	4.5	20.0	
18	57	45	30	52.5	10.2	1.2	20	20	176	8.5	14.5	
18	57	45	30	52.5	20.3	1.2	20	20	176	8.5	14.5	
22	57	50	30	52.5	10.2	1.2	20	20	178	7.0	16.5	
22	57	50	30	52.5	20.3	1.2	20	20	178	7.0	16.5	
25	57	50	35	52.5	20.3	1.2	20	21	181	6.5	18.0	
30	57	57	35	52.5	20.3	1.2	20	21	184	5.5	20.5	
35	57	60	40	52.5	20.3	1.2	20	22	190	5.0	22.5	
40	57	60	40	52.5	20.3	1.2	20	22	192	4.5	24.0	
45	57	60	45	52.5	20.3	1.2	20	22	196	4.0	26.0	

NISSEI

U_{NDC}(70℃)：1200Vdc/U_{NDC}(85℃)：1000Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
1	32	25	11	27.5	-	0.8	90	6	35	29.5	4.0	MPYCV1200-105D0B00055
2	32	28	14	27.5	-	0.8	90	6	36	15.5	6.0	
2.5	32	30	16	27.5	-	0.8	90	6	37	12.5	7.0	
3.5	32	33	18	27.5	-	0.8	90	7	39	9.5	8.5	
3.5	32	33	18	27.5	10.2	0.8	90	6	36	9.0	9.0	
5	32	37	22	27.5	-	0.8	90	7	42	7.5	10.5	
5	32	37	22	27.5	10.2	0.8	90	6	38	7.0	11.5	
3	42	30	16	37.5	-	1	45	11	81	23.0	5.5	
5	42	33.5	18.5	37.5	-	1	45	11	83	14.5	8.0	
5	42	33.5	18.5	37.5	10.2	1	45	11	81	14.0	8.0	
6	42	40	20	37.5	-	1	45	11	85	12.0	9.5	
6	42	40	20	37.5	10.2	1	45	11	82	11.5	9.5	
8	42	44	24	37.5	-	1	45	12	89	9.5	11.5	
8	42	44	24	37.5	10.2	1	45	11	84	9.0	11.5	
9	42	44	24	37.5	-	1	45	12	90	8.5	12.0	
9	42	44	24	37.5	10.2	1	45	11	84	8.0	12.5	
10	42	45	30	37.5	10.2	1.2	45	11	84	7.0	14.0	
10	42	45	30	37.5	20.3	1.2	45	11	84	7.0	14.0	
12	42	50	30	37.5	10.2	1.2	45	11	85	6.0	16.0	
12	42	50	30	37.5	20.3	1.2	45	11	85	6.0	16.0	
15	42	55	35	37.5	10.2	1.2	45	11	87	5.0	18.5	
18	42	55	35	37.5	20.3	1.2	45	12	88	4.5	20.0	
15	57	45	30	52.5	10.2	1.2	23	19	161	9.0	14.0	
15	57	45	30	52.5	20.3	1.2	23	19	161	9.0	14.0	
20	57	50	30	52.5	10.2	1.2	23	19	164	7.0	16.5	
20	57	50	30	52.5	20.3	1.2	23	19	164	7.0	16.5	
22	57	50	35	52.5	20.3	1.2	23	19	165	6.5	18.0	
25	57	57	35	52.5	20.3	1.2	23	19	168	6.0	19.5	
30	57	60	40	52.5	20.3	1.2	23	20	173	5.0	22.5	
35	57	60	45	52.5	20.3	1.2	23	20	177	4.5	24.5	

备注：

“-”：客户要求的容量偏差

ESR 值为 f=10KHz 下的典型值

I_{RMS} 值为 f=10KHz、Tamb=70℃、散热条件 10W/m^2/℃、△Tcase≤20℃的最大电流有效值.

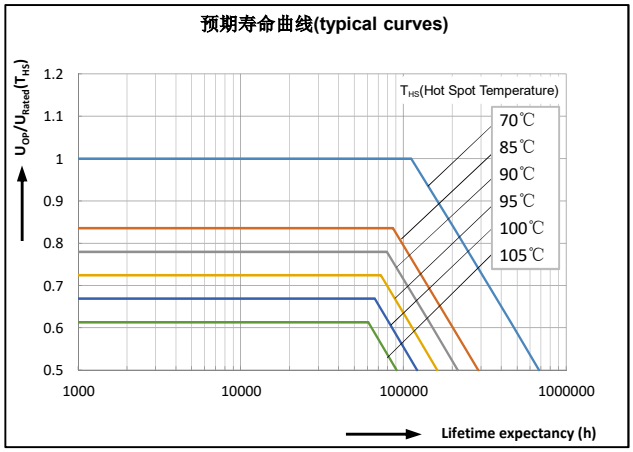
“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR typical values at 10KHz

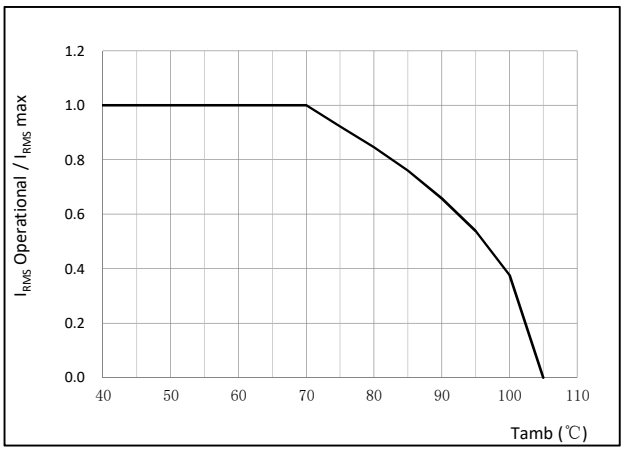
I_{RMS} is the maximum R.M.S current at 10KHz、Tamb=70℃、△Tcase≤20℃.(Coefficient of heat dissipation： 10W/m^2/℃)

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■预期寿命曲线
Expected Lifetime Curves:

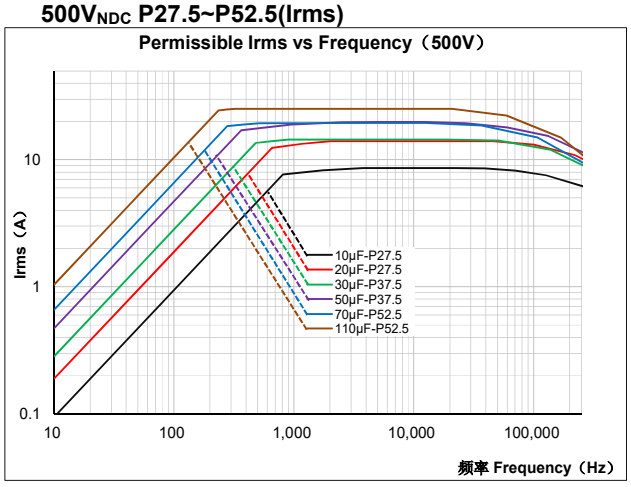


■纹波电流降额曲线
I_{RMS}Derating vs Ambient Temperature:

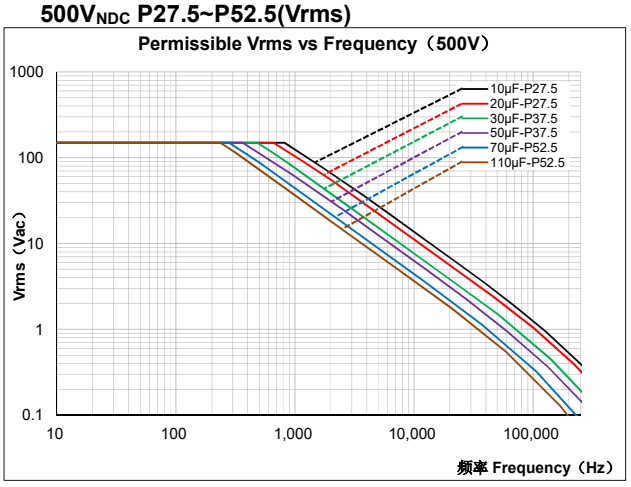


■有效值电流频率曲线 Permissible Vrms &Irms vs Frequency

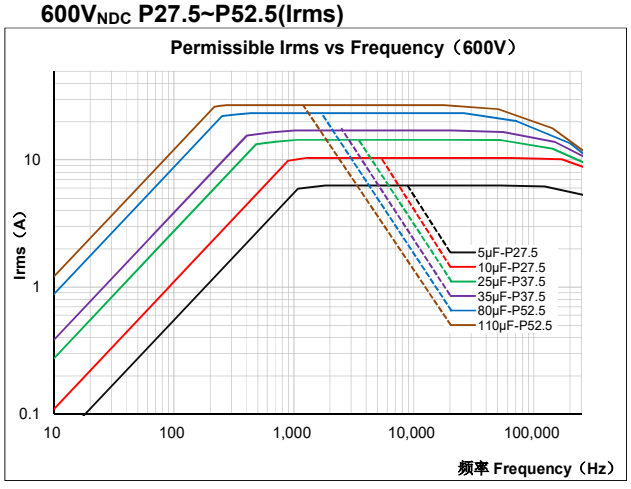
500V_{NDC} P27.5~P52.5(Irms)



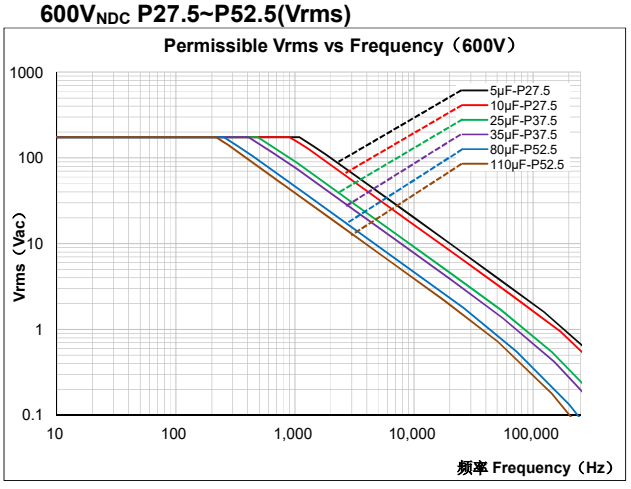
500V_{NDC} P27.5~P52.5(Vrms)



600V_{NDC} P27.5~P52.5(Irms)

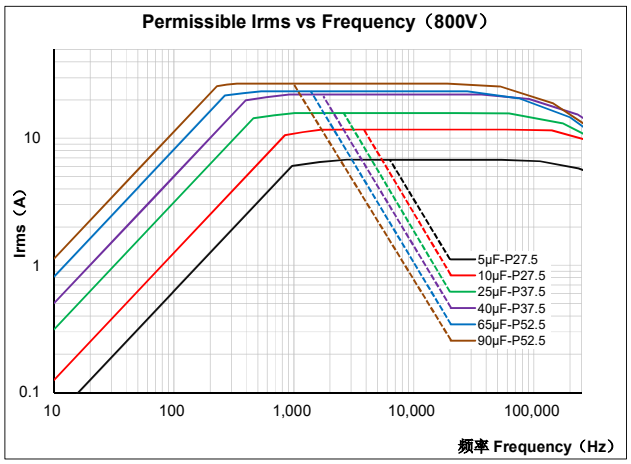


600V_{NDC} P27.5~P52.5(Vrms)

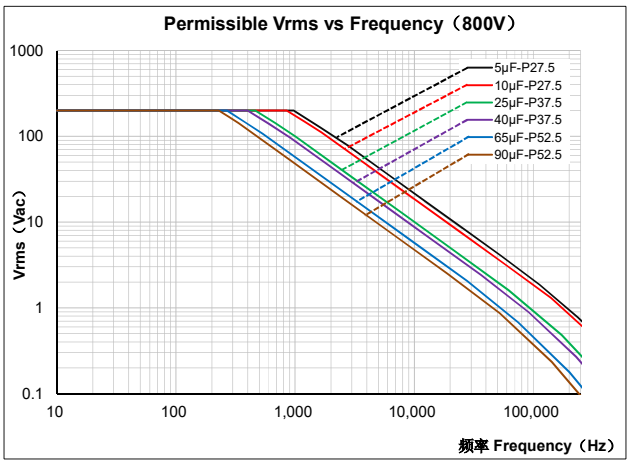


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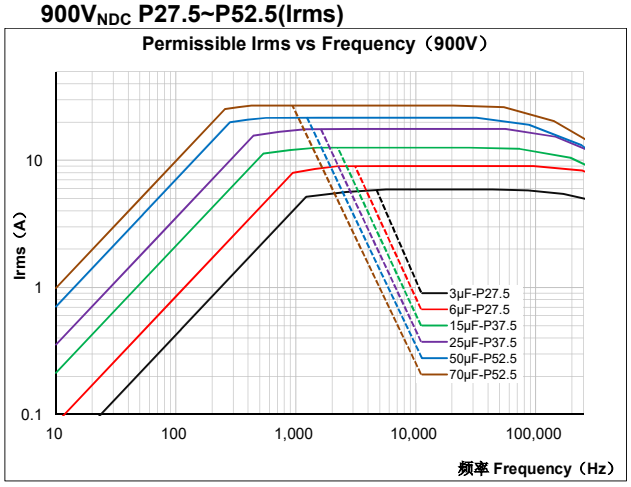
800V$_{NDC}$ P27.5~P52.5(Irms)



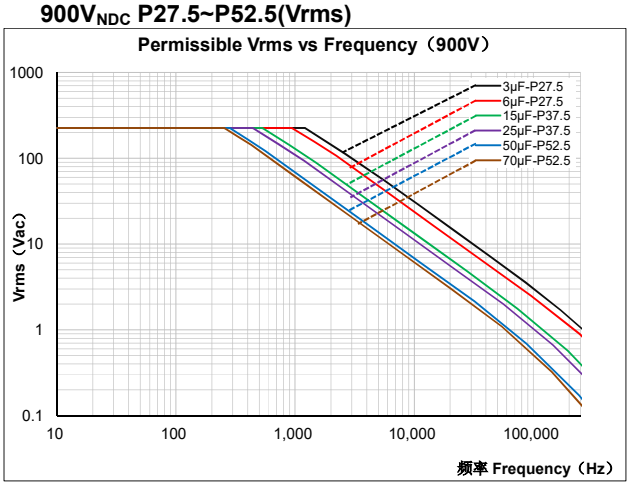
800V$_{NDC}$ P27.5~P52.5(Vrms)



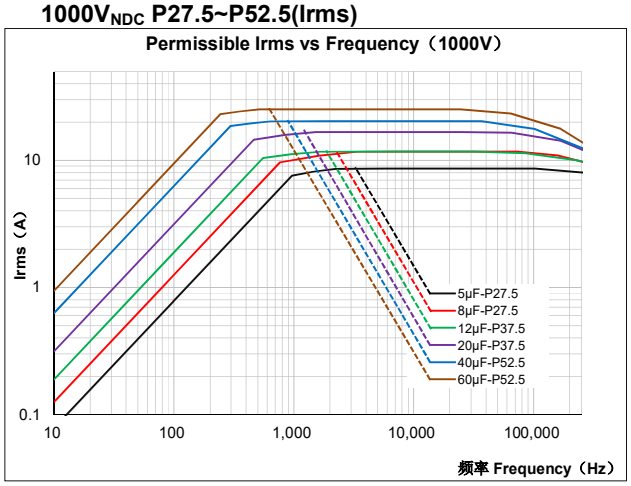
900V$_{NDC}$ P27.5~P52.5(Irms)



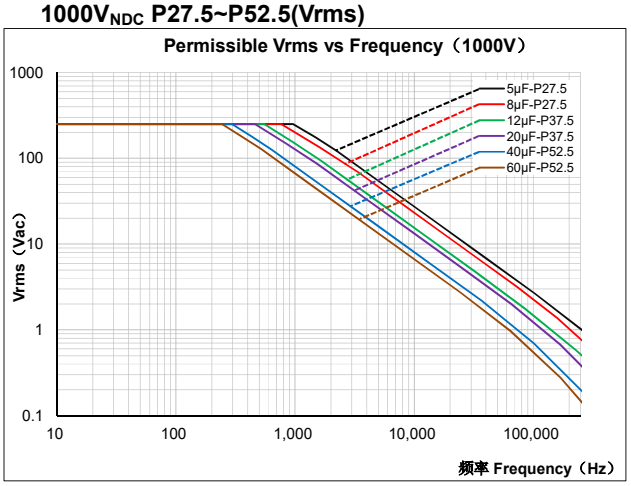
900V$_{NDC}$ P27.5~P52.5(Vrms)



1000V$_{NDC}$ P27.5~P52.5(Irms)

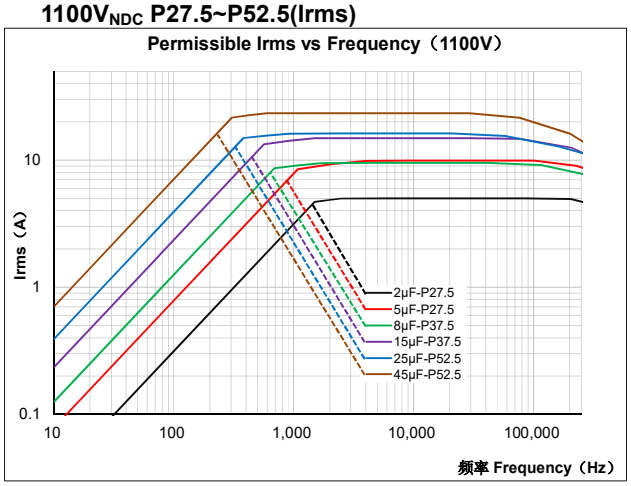


1000V$_{NDC}$ P27.5~P52.5(Vrms)

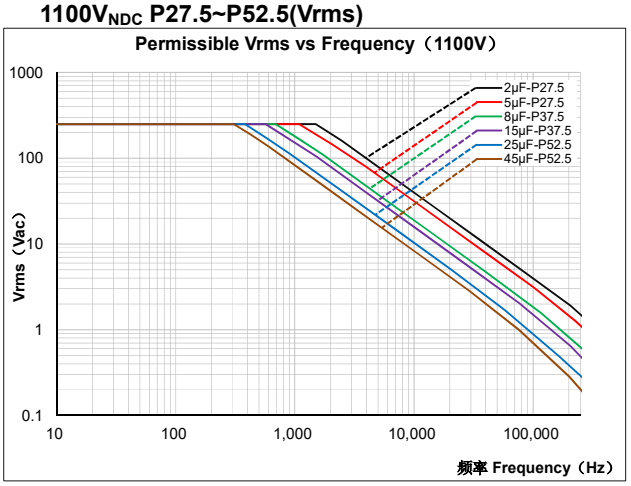


NISSEI

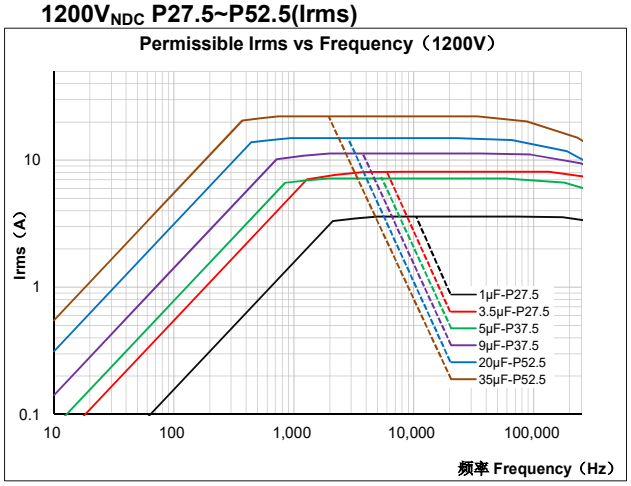
1100V$_{NDC}$ P27.5~P52.5(Irms)



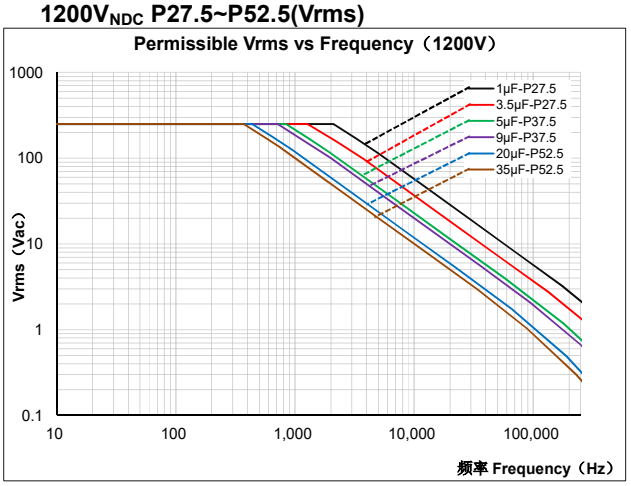
1100V$_{NDC}$ P27.5~P52.5(Vrms)



1200V$_{NDC}$ P27.5~P52.5(Irms)



1200V$_{NDC}$ P27.5~P52.5(Vrms)



注：

纹波电流或纹波电压值基于 Tamb=70℃条件下；
产品散热系数：10W/m^2/℃；
当 f≥100KHz，Irms 和 Vrms 仅供参考。

Note:

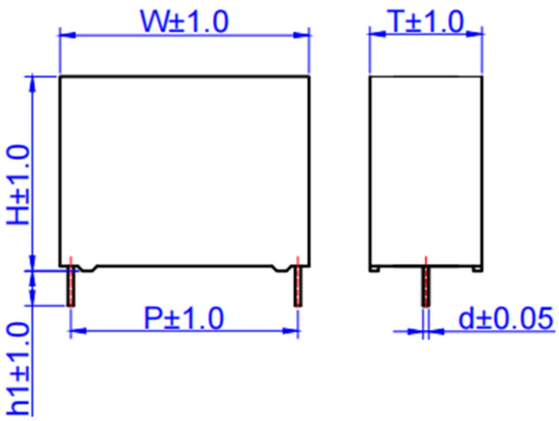
Permissible Vrms &Irms curves frequency f at Tamb=70℃;
Coefficient of heat dissipation：10W/m^2/℃;
At f≥100KHz，Irms & Vrms are only for reference.

B14:Series/Type 系列/类型: MPY(H)系列

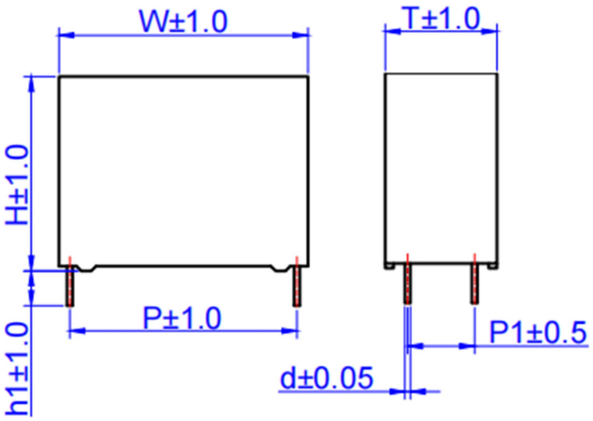
MPY(H)系列高耐温金属化薄膜车载电容器（PCB,125℃）

Metallized High Temperature film Capacitor For Automotive（PCB,125℃）

■ 外形图 Outline Drawing



2Pins



4Pins

■ 特点

塑料外壳封装（UL94 V-0）阻燃环氧树脂填充

干式结构

自愈，安全网格设计

较高的电流承受能力

能持续工作在 125℃温度下

用途：DC-DC 变换器，OBC，WPT 等

■ Features

Plastic case (UL94 V-0), filled with flame retardant epoxy resin

Dry construction

Self-healing, Segmented metallization design

High r.m.s current handling capability

Can be continuously worked at 125℃

Applications :i.e. DC-DC convertor, OBC, WPT

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■ 技术要求 Specifications

引用标准 Reference Standard	AEC-Q200D-2010	
气候类别 Climatic Category	40/85/56	
工作温度范围(外壳) Operation Temperature (caset)	-40℃~125℃	
额定电压（$U_{N,85℃}$） Rated Voltage（$U_{N,85℃}$）	450Vdc	
电容量 Capacitance Range	4.0μF～20μF	
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K) (20℃,1kHz)	
耐电压 Voltage Proof	极间 Between Terminals	U=1.5U_{NDC}（20℃，10s）
	极壳 Between Terminals to Case	2000Vac (10s)，50Hz
绝缘电阻 Insulation Resistance	IR×C_N≥10 00s (20℃, 100Vdc, 1min)	
自感（L_s） Self Inductance（L_s）	＜1nH per mm of lead spacing	
最大峰值电流$\hat{I}$(A) Maximum Peak Current(A)	$\hat{I}$= C_R×dv/dt	

*当壳温=125℃时，不允许有工作电流。 When θcase=125℃, no current load allowed。

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■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Y	C	H	0	4	5	0	-	4	0	5	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

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■ 产品尺寸及性能参数：Product Dimension and Characteristic Data:

U_{NDC}(85℃)：450Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part number
								1KHz	10KHz			
4.0	32.0	22.0	13.0	27.5	-	0.8	9	60	120	46.1	2.9	MPYCH0450-405D0B00055
5.0	32.0	24.5	15.0	27.5	-	0.8	9	60	120	37.1	3.5	
8.0	32.0	29.0	19.0	27.5	-	0.8	9	60	120	23.6	5.0	
10.0	32.0	33.0	18.0	27.5	-	0.8	9	60	120	17.0	6.0	
12.0	32.0	34.0	20.0	27.5	-	0.8	9	60	120	14.5	6.9	
15.0	32.0	37.0	22.0	27.5	-	0.8	9	60	120	13.2	7.7	
18.0	32.0	40.5	24.0	27.5	-	0.8	9	60	120	11.02	8.8	
20.0	32.0	42.0	26.0	27.5	-	1.0	9	60	120	10.2	9.6	

备注：

“-”：客户要求的容量偏差

ESR 值为 f=10KHz 下的典型值

I_{RMS} 值为 f=10KHz、Tamb=85℃、散热条件 10W/m^2/℃、△ Tcase≤20℃的最大电流有效值.

“-”=custom’s capacitor tolerance code, J=±5%, K=±10%

ESR is typical values at 10KHz

I_{RMS} is the maximum R.M.S current at 10KHz、Tamb=85℃、△ Tcase≤20℃.(Coefficient of heat dissipation：10W/m^2/℃)

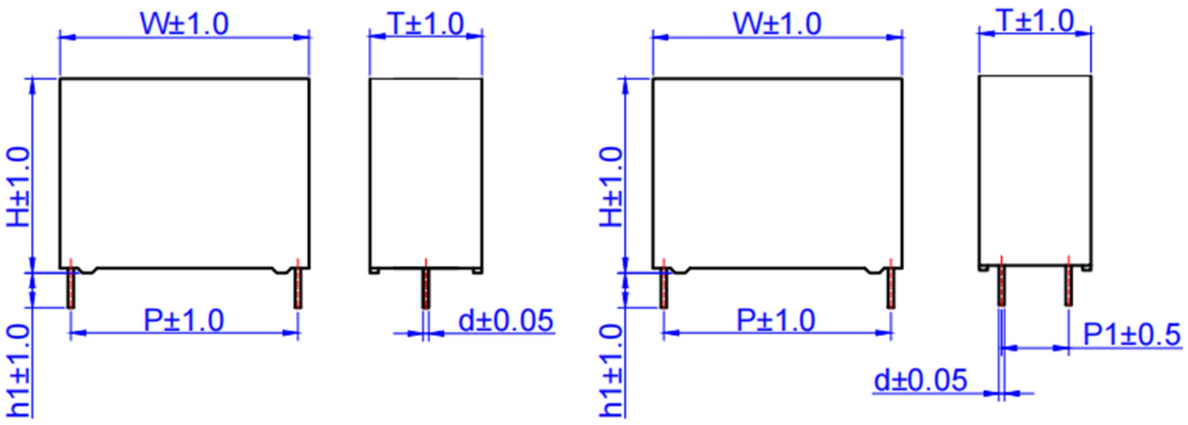
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B15:Series/Type 系列/类型: MPY(R)系列

MPY(R)系列低高度设计 PCB 用 DC-Link 电容器（安全膜设计）

MPY(R) Series Low building height DC-Link Capacitor for PCB

■ 外形图 Outline Drawing



2Pins 4Pins

■ 特点

超薄型，低高度，安全膜设计
高耐纹波电流，低 ESR、L_S
塑料外壳封装（UL94 V-0），树脂填充
良好的自愈特性
高性能直流滤波应用场合（如：变频器、
工业和高端电源、太阳能逆变器等）

■ Features

Slim line, low building height, segmented metallized-film design
High ripple current capability, low ESR, low L_S
Plastic case (UL94 V-0), filled with resin
Self-healing property
High performance DC filtering applications(i.e.transducers,
industrial and high-end power supplies solar inverters)

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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T17702(IEC61071)			
气候类别 Climatic Category	40/85/56			
工作温度范围 Operating Temperature Range	-40℃ ~ +105℃ θ_{hs}=+85℃ to +105℃：decreasing factor 1.5% per ℃ for $U_{N,85℃}$			
额定电压($U_{N,85℃}$) Rated Voltage($U_{N,85℃}$)	500V	700V	1000V	1200V
工作电压 Operating Voltage$U_{opdc,105℃}$	350V	490V	700V	840V
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)			
耐电压 Voltage Proof	1.5U_N(10s)			
绝缘电阻 Insulation Resistance ($IR \times C_N$)	≥10 000s（20℃，100Vdc，1min）			
自感（L_s） Self Inductance（L_s）	＜1nH per mm of lead spacing			
最大峰值电流 $\hat{I}$ (A) Maxmum peak current $\hat{I}$ (A)	$\hat{I}=C \cdot dV/dt$			
预期寿命 Expected life time	100 000 hours @ U_N，θ_{hs}=70℃			

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■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21 digits part nVmber is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Y	C	R	0	5	0	0	-	5	0	5	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

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■ 产品尺寸及性能参数：**Product Dimension and Characteristic Data:**

U_{NDC}(85℃)：500Vdc/U_{NDC}(105℃)：350Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4}) 1KHz	tgδ×(10^{-4}) 10KHz	ESR (mΩ)	I_{RMS} (A)	产品代码 Part nVmber
5	32	12	32	27.5	-	0.8	20	10	85	20.0	3.8	MPYCR0500-505D0B00055
6	32	15	27	27.5	-	0.8	20	10	85	10.5	4.3	
7	32	15	27	27.5	-	0.8	20	10	85	9.0	4.8	
10	42	15	27	37.5	10.2	1.0	65	11	78	7.0	9.5	
10	42	18	24	37.5	10.2	1.0	15	20	150	16.2	5.1	
15	42	15	33	37.5	10.2	1.0	15	20	150	11.0	6.7	
15	42	18	27	37.5	10.2	1.0	15	20	150	11.0	6.4	
20	42	18	39	37.5	10.2	1.0	15	20	150	8.4	8.4	
20	42	24	30	37.5	10.2	1.0	15	20	150	8.4	8.2	
20	57	15	33	52.5	20.3	1.2	10	35	300	15.4	6.4	
30	42	24	39	37.5	10.2	1.0	15	20	150	5.8	10.8	
30	57	15	45	52.5	20.3	1.2	10	35	300	10.5	8.8	
30	57	18	35	52.5	20.3	1.2	11	35	300	12.8	8.5	
50	57	15	62	52.5	20.3	1.2	10	35	300	6.6	12.8	
50	57	18	50	52.5	20.3	1.2	11	35	300	12.8	8.5	
50	57	24	39	52.5	20.3	1.2	11	35	300	12.8	8.2	
100	57	24	70	52.5	20.3	1.2	11	35	300	6.7	14.2	

U_{NDC}(85℃)：700Vdc/U_{NDC}(105℃)：500Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4}) 1KHz	tgδ×(10^{-4}) 10KHz	ESR (mΩ)	I_{RMS} (A)	产品代码 Part nVmber
3	32	12	24	27.5	-	0.8	25	10	65	25.1	3.3	MPYCR0700-305D0B00055
5	32	15	27	27.5	-	0.8	25	10	65	15.4	4.7	
7	42	15	27	37.5	10.2	1.0	19	20	120	17.7	4.9	
7	42	18	24	37.5	10.2	1.0	19	20	120	17.7	4.8	
10	42	15	33	37.5	10.2	1.0	19	20	120	12.6	6.2	
10	42	18	27	37.5	10.2	1.0	19	20	120	12.6	6.0	
15	42	19	39	37.5	10.2	1.0	19	20	120	8.6	8.3	
15	42	24	30	37.5	10.2	1.0	19	20	120	8.6	8.1	
15	57	15	33	52.5	20.3	1.2	13	35	270	9.9	8.0	
20	42	24	39	37.5	10.2	1.0	19	20	120	6.6	10.1	
20	57	15	45	52.5	20.3	1.2	13	35	270	7.6	10.3	
20	57	18	35	52.5	20.3	1.2	13	35	270	10.1	8.3	
30	57	15	62	52.5	20.3	1.2	13	35	270	5.3	14.2	
30	57	18	50	52.5	20.3	1.2	13	35	270	7.0	11.6	
30	57	24	39	52.5	20.3	1.2	13	35	270	7.0	11.0	
50	57	24	70	52.5	20.3	1.2	13	35	270	4.5	17.3	

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U_{NDC}(85℃)：1000Vdc/U_{NDC}(105℃)：700Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part nVmber
								1KHz	10KHz			
2	32	12	24	27.5	-	0.8	33	10	65	27.2	3.2	MPYCR1000-205D0B00055
3	42	18	24	37.5	10.2	1.0	25	20	120	29.6	3.7	
5	42	15	27	37.5	10.2	1.0	25	10	65	18.1	4.8	
5	42	18	27	37.5	10.2	1.0	25	20	120	18.1	5.0	
7	42	15	33	37.5	10.2	1.0	25	20	120	13.1	6.1	
7	42	18	39	37.5	10.2	1.0	25	20	120	13.1	6.8	
7	42	24	30	37.5	10.2	1.0	25	20	120	13.1	6.5	
10	42	18	39	37.5	10.2	1.0	25	20	120	9.3	8.0	
10	42	24	39	37.5	10.2	1.0	25	20	120	9.3	8.4	
10	57	15	33	52.5	20.3	1.2	17	20	120	17.5	6.0	
15	57	15	45	52.5	20.3	1.2	17	35	270	11.8	8.3	
15	57	18	50	52.5	20.3	1.2	17	35	270	9.9	9.7	
15	57	24	39	52.5	20.3	1.2	17	35	270	11.8	8.4	
☆20	57	15	62	52.5	20.3	1.2	17	35	270	9.0	10.8	
20	57	18	50	52.5	20.3	1.2	17	35	270	7.6	11.1	
20	57	24	39	52.5	20.3	1.2	17	35	270	7.6	10.5	
☆30	57	24	70	52.5	20.3	1.2	17	35	270	5.3	15.9	

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U_{NDC}(85℃)：1200Vdc/U_{NDC}(105℃)：850Vdc												
C (μF)	W	H	T	P	P1	d	dv/dt (V/μs)	tgδ×(10^{-4})		ESR (mΩ)	I_{RMS} (A)	产品代码 Part nVmber
								1KHz	10KHz			
1.5	32	12	24	27.5	-	0.8	40	10	55	28.9	3.1	MPYCR1200-155D0B00055
3	42	15	27	37.5	10.2	1.0	31	10	55	23.9	4.2	
3	42	18	24	37.5	10.2	1.0	31	15	100	23.9	4.2	
4	42	15	33	37.5	10.2	1.0	31	15	100	18.1	5.2	
4	42	18	27	37.5	10.2	1.0	31	15	100	18.1	5.0	
6	42	24	30	37.5	10.2	1.0	31	15	100	12.3	6.7	
6	57	15	33	52.5	20.3	1.2	20	15	100	23.2	5.2	
7	42	18	39	37.5	10.2	1.0	31	15	100	10.6	7.5	
9	57	15	45	52.5	20.3	1.2	20	25	200	15.7	7.2	
☆12	57	15	62	52.5	20.3	1.2	20	25	200	11.9	9.4	
13	57	18	50	52.5	20.3	1.2	20	25	200	9.2	10.0	
15	57	24	39	52.5	20.3	1.2	20	25	200	8.1	10.2	
☆25	57	24	70	52.5	20.3	1.2	20	25	200	5.1	16.1	

备注：

“-”：客户要求的容量偏差

ESR 值为 f=10KHz 下的典型值

I_{RMS} 值为 f=10KHz、Tamb=70℃、散热条件 10W/m^2/℃、△ Tcase≤20℃ 的最大电流有效值.

“☆”表示 6 引线

“-”=cVstom’s capacitor tolerance code, J=±5%, K=±10%

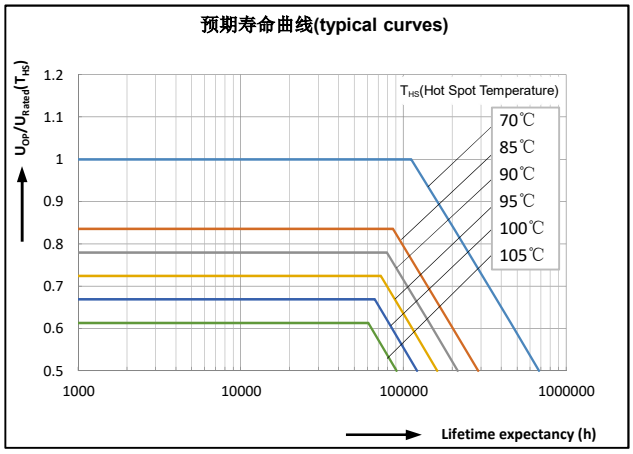
ESR typical valVes at 10KHz

I_{RMS} is the maximVm R.M.S cVrrent at 10KHz、Tamb=70℃、△ Tcase≤20℃ .(Coefficient of heat dissipation：10W/m^2/℃)

“☆”means 6 pin

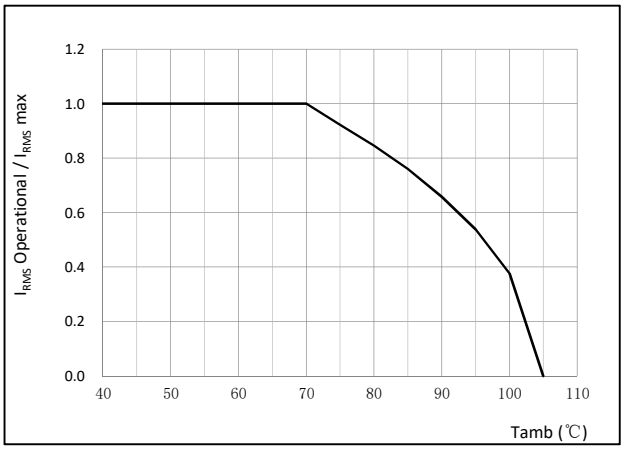
■预期寿命曲线

Expected Lifetime CVrves:



■纹波电流降额曲线

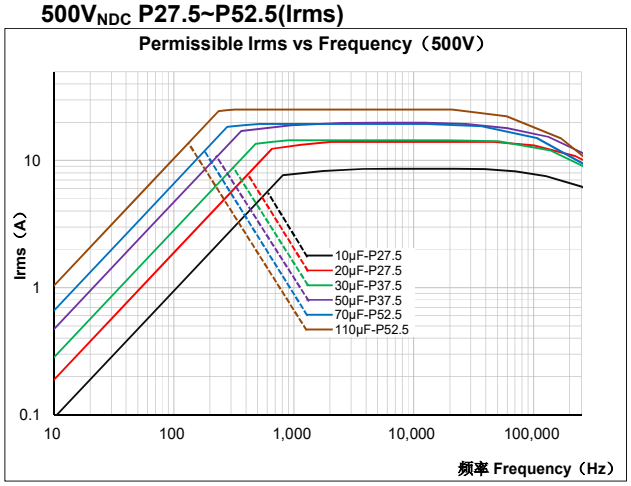
I_{RMS}Derating vs Ambient TemperatVre:



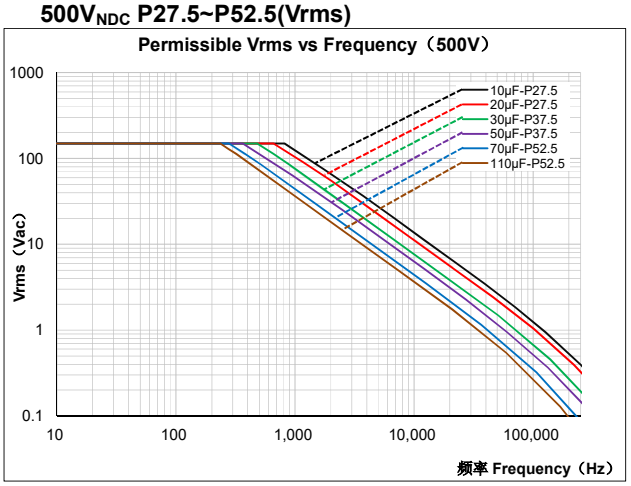
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■有效值电流频率曲线 Permissible Vrms &Irms vs Frequency

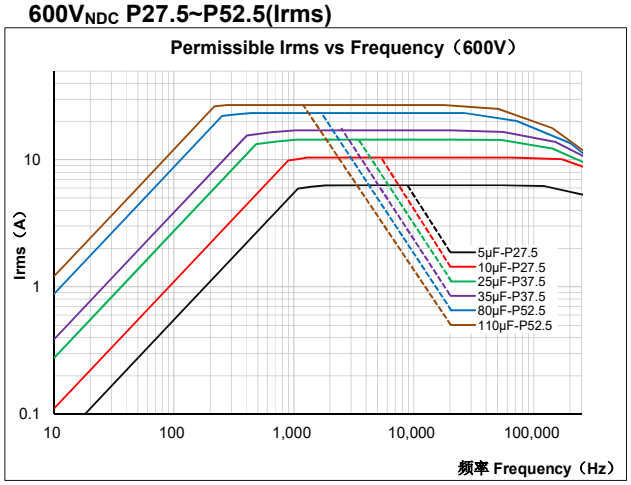
500V$_{NDC}$ P27.5~P52.5(Irms)



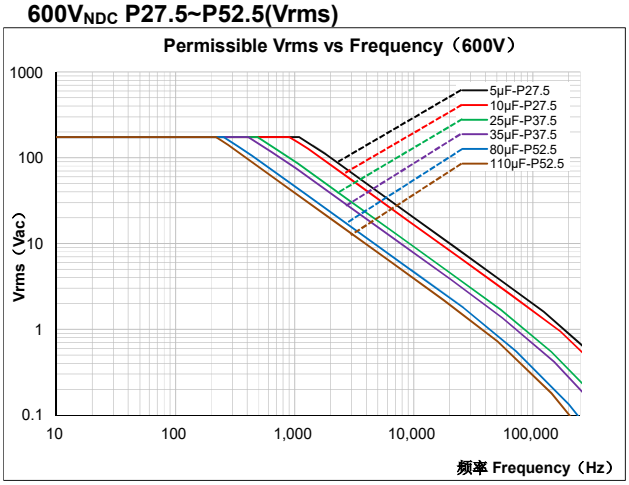
500V$_{NDC}$ P27.5~P52.5(Vrms)



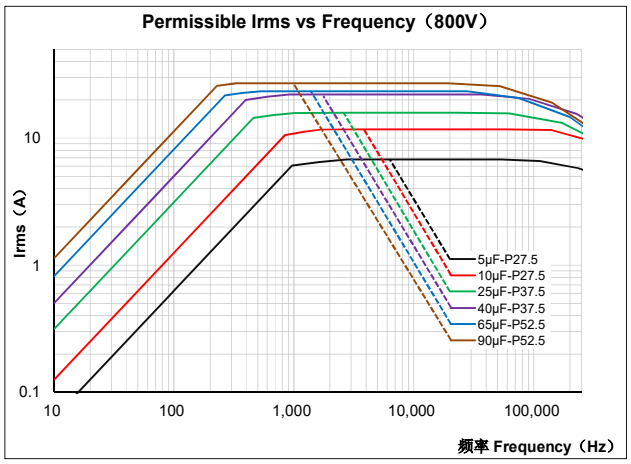
600V$_{NDC}$ P27.5~P52.5(Irms)



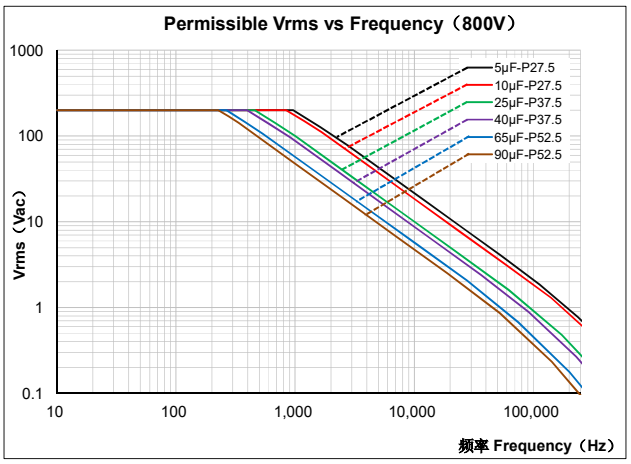
600V$_{NDC}$ P27.5~P52.5(Vrms)



800V$_{NDC}$ P27.5~P52.5(Irms)

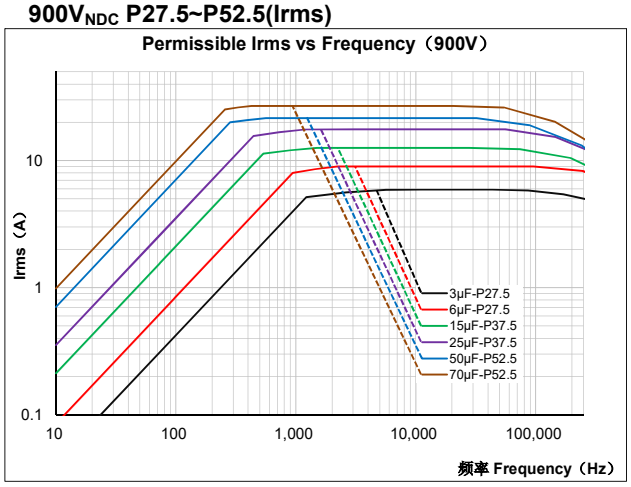


800V$_{NDC}$ P27.5~P52.5(Vrms)

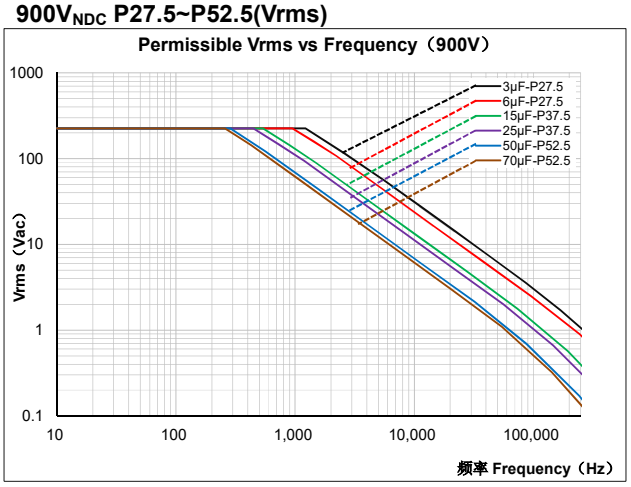


NISSEI

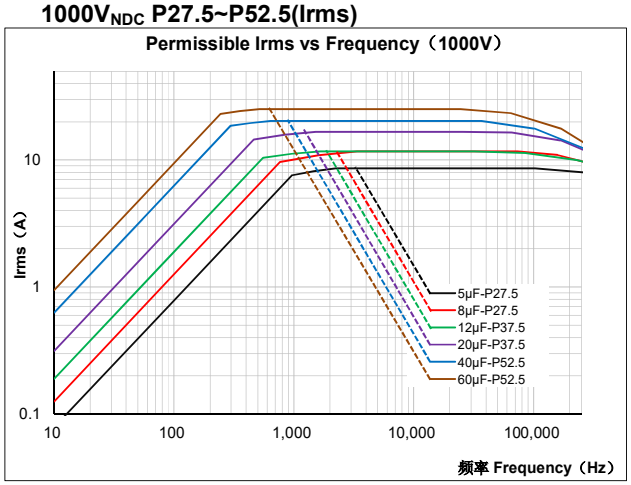
900V_{NDC} P27.5~P52.5(Irms)



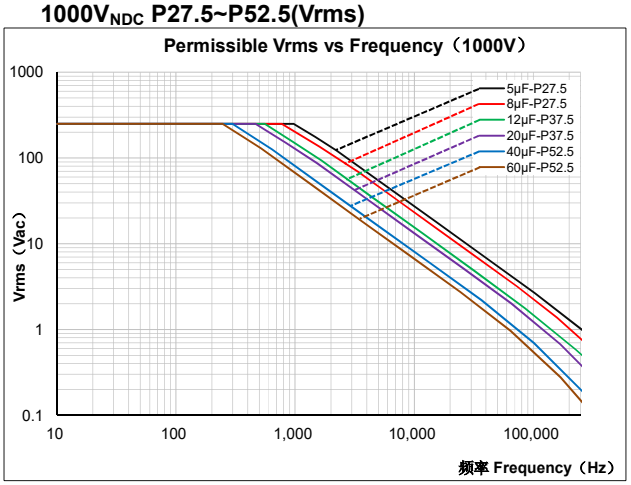
900V_{NDC} P27.5~P52.5(Vrms)



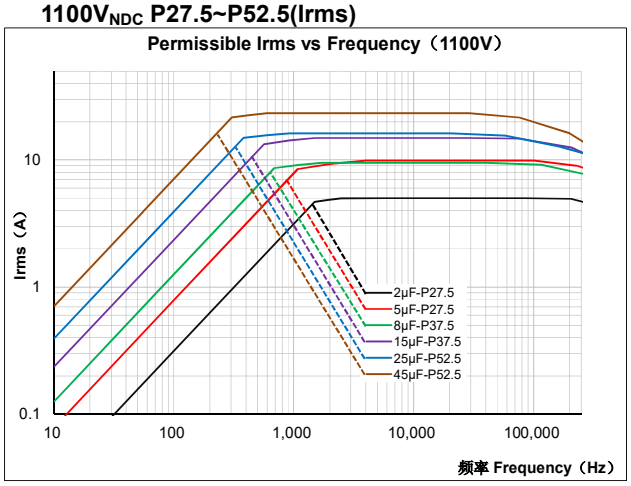
1000V_{NDC} P27.5~P52.5(Irms)



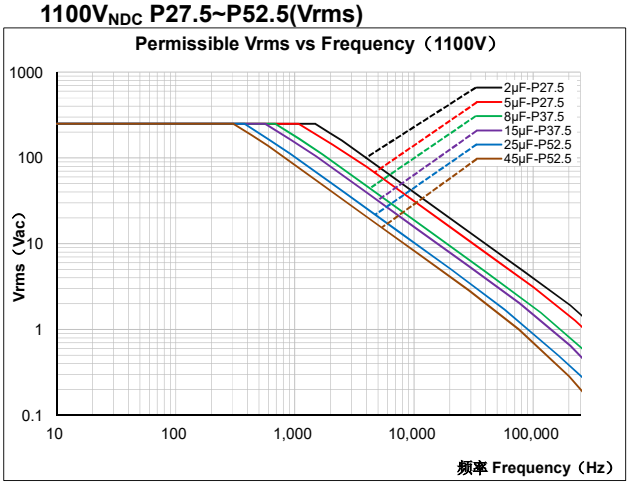
1000V_{NDC} P27.5~P52.5(Vrms)



1100V_{NDC} P27.5~P52.5(Irms)

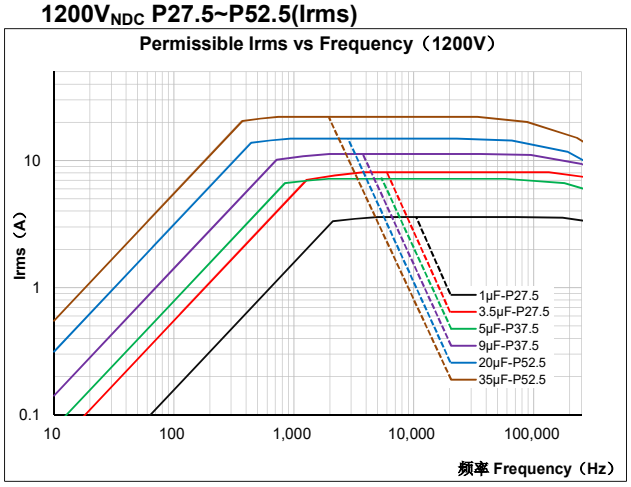


1100V_{NDC} P27.5~P52.5(Vrms)

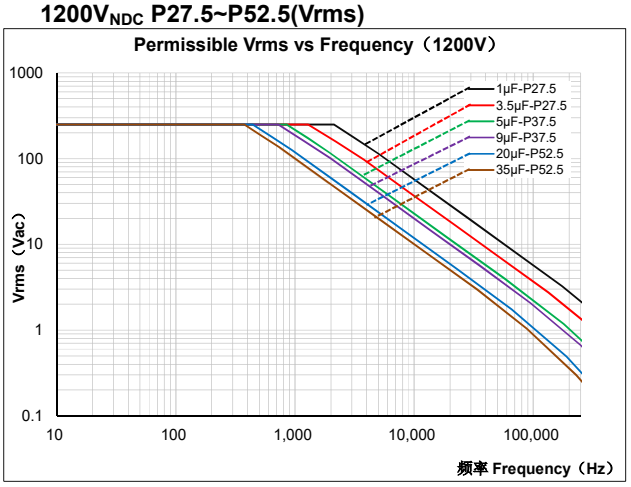


NISSEI

1200V$_{NDC}$ P27.5~P52.5(Irms)



1200V$_{NDC}$ P27.5~P52.5(Vrms)



注：

纹波电流或纹波电压值基于 Tamb=70℃条件下；

产品散热系数：10W/m^2/℃；

当 f≥100KHz，Irms 和 Vrms 仅供参考。

Note:

Permissible Vrms &Irms cVrves freqVency f at Tamb=70℃;

Coefficient of heat dissipation：10W/m^2/℃;

At f≥100KHz，Irms & Vrms are only for reference.

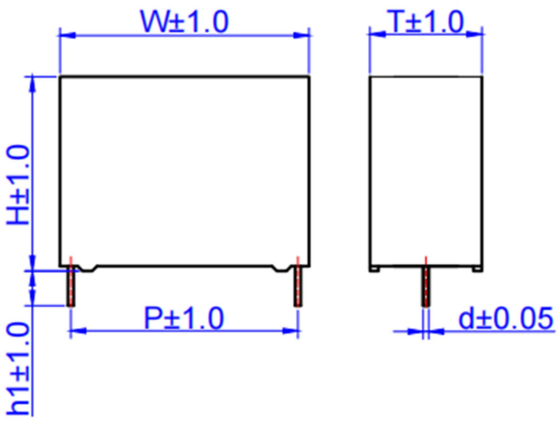
NISSEI

B16:Series/Type 系列/类型:MPYL 系列

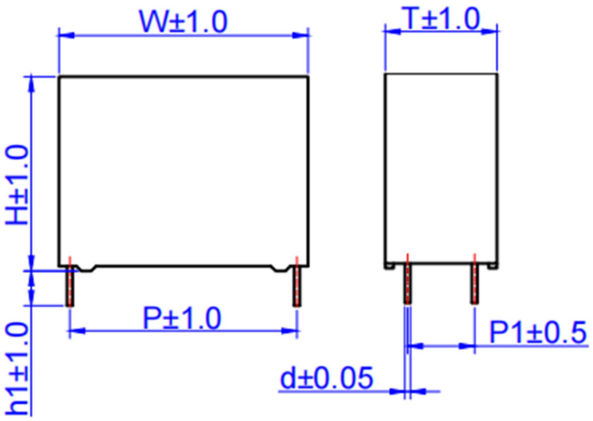
MPYL 系列交流滤波电容器（PCB）

MPYL Series AC fliter　Capacitor for PCB

■ 外形图　Outline Drawing



2Pins



4Pins

■ 特点

良好的自愈特性

金属化聚丙烯膜结构

适用于小功率交流输出滤波电路，如 UPS、太阳能光伏 DC/AC 逆变器中的 LCL 滤波

■ Features

Self-healing property

Metallized polypropylene film structure

Suita for small power AC output filter, i.e.UPS, Solar Photovoltaic DC/AC inverter with LCL filter

NISSEI

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T17702(IEC61071)			
气候类别 Climatic Category	40/85/56			
工作温度（外壳温度）Operating Temperature Range（case）	-40℃ ~ +105℃ θ_{hs}=+85℃ to +105℃：decreasing factor 1.5% per ℃ for U_{rms}			
额定均方根电压 Rated RMS Voltage(U_{rms})	180Vac	250Vac	300Vac	350Vac
额定交流电压 Rated a.c. Voltage(U_N)	250Vac	350Vac	425Vac	480Vac
最大连续直流电压 Maximum continuous DC Voltage	300Vdc	475Vdc	560Vdc	600Vdc
电容量范围 Capacitance Range	4.0μF~60.0μF	1.0μF~40.0μF	1.0μF~28.0μF	0.33μF~27.0μF
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)			
耐电压 Voltage Proof	引线之间 Between Terminals：		1.5U_N(Vac)(10s)	
	极壳之间 Between Terminals To Case：		3000Vac(10s)	
绝缘电阻 Insulation Resistance ($IR \times C_N$)	≥3 000s（20℃，100Vdc，1min）			
损耗角正切 Dissipation Factor	≤20×10^{-4}(20℃，1kHz)(Typical value，20×10^{-4})			
注：若用于户外或长期湿度较大场合，建议选用防潮设计。 For outdoor or severe humidity condition application，recommend to use THB version.				

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■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	Y	C	L	0	1	8	0	-	4	0	5	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

NISSEI

■产品尺寸及性能参数：**Product Dimension and Characteristic Data:**

Ur=180Vac / U_{NDC}=300Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
4	32.0	22.0	13.0	27.5	-	0.8	6.1	280	840	7	MPYCL0180-405D0B00055
5	32.0	28.0	14.0	27.5	-	0.8	5.2	350	1050	8.5	
6.8	32.0	33.0	18.0	27.5	-	0.8	3.8	476	1428	10	
10	32.0	33.0	18.0	27.5	-	0.8	2.8	700	2100	10	
10	42.0	32.0	17.0	37.5	-	1.0	4.8	400	1200	11	
15	42.0	37.0	22.0	37.5	-	1.0	3.5	600	1800	14	
18	42.0	36.0	23.0	37.5	-	1.2	3.0	720	2160	15	
20	42.0	36.0	23.0	37.5	-	1.2	2.8	800	2400	16	
22	42.0	41.0	26.0	37.5	-	1.2	2.7	880	2640	17.5	
25	42.0	41.0	26.0	37.5	-	1.2	2.5	1000	3000	18	
30	42.0	45.0	30.0	37.5	-	1.2	2.3	1200	3600	18	
33	42.0	45.0	30.0	37.5	-	1.2	2.2	1320	3960	18	
40	57.0	43.5	29.5	52.5	20.3	1.2	2.5	800	2400	22	
43	57.0	43.5	29.5	52.5	20.3	1.2	2.3	860	2580	22.5	
50	57.0	50.0	35.0	52.5	20.3	1.2	2.1	1000	3000	26	
60	57.0	50.0	35.0	52.5	20.3	1.2	1.9	1200	3600	27.5	

NISSEI

Ur=250Vac / U_{NDC}=450Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1	32.0	18.0	9.0	27.5	-	0.8	18.2	90	270	3.5	MPYCL0250-105D0B00055
1.5	32.0	20.0	11.0	27.5	-	0.8	12.4	135	405	4.5	
2	32.0	22.0	13.0	27.5	-	0.8	9.5	180	540	5.5	
2.2	32.0	22.0	13.0	27.5	-	0.8	8.7	198	594	6	
2.5	32.0	22.0	13.0	27.5	-	0.8	7.8	225	675	6	
3	32.0	24.5	15.0	27.5	-	0.8	6.7	270	810	7	
3.3	32.0	24.5	15.0	27.5	-	0.8	6.2	297	891	7.5	
3.5	32.0	28.0	14.0	27.5	-	0.8	5.9	315	945	8	
4	32.0	33.0	18.0	27.5	-	0.8	5.1	360	1080	9.5	
4.5	32.0	33.0	18.0	27.5	-	0.8	4.6	405	1215	10	
5	32.0	33.0	18.0	27.5	-	0.8	4.2	450	1350	10	
6.8	32.0	37.0	22.0	27.5	-	0.8	3.4	612	1836	10	
4.7	42.0	26.0	15.0	37.5	-	1.0	7.7	282	846	7.5	
5	42.0	28.0	14.0	37.5	-	1.0	7.3	300	900	8	
6	42.0	32.0	17.0	37.5	-	1.0	6.3	360	1080	9.5	
6.5	42.0	32.0	17.0	37.5	-	1.0	5.8	390	1170	10	
6.8	42.0	33.5	18.5	37.5	-	1.0	5.6	408	1224	10.5	

Ur =250Vac / U_{NDC}=450Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
7.5	42.0	33.5	18.5	37.5	-	1.0	5.2	450	1350	11	
8	42.0	37.0	22.0	37.5	-	1.0	5.0	480	1440	12	
10	42.0	37.0	22.0	37.5	-	1.0	4.1	600	1800	13	
12	42.0	41.0	26.0	37.5	-	1.2	3.6	720	2160	15	
14	42.0	41.0	26.0	37.5	-	1.2	2.8	840	2520	16.5	
15	42.0	41.0	26.0	37.5	-	1.2	3.1	900	2700	17	
16	42.0	41.0	26.0	37.5	-	1.2	2.5	960	2880	18	
17	42.0	41.0	26.0	37.5	-	1.2	2.4	1020	3060	18	
18	42.0	43.0	28.0	37.5	-	1.2	2.8	1080	3240	18	
20	42.0	45.0	30.0	37.5	-	1.2	2.6	1200	3600	18	
22	42.0	45.0	30.0	37.5	-	1.2	2.5	1320	3960	18	
25	57.0	43.5	29.5	52.5	20.3	1.2	3.0	750	2250	19.5	
30	57.0	43.5	29.5	52.5	20.3	1.2	2.6	900	2700	21.5	
35	57.0	50.0	35.0	52.5	20.3	1.2	2.4	1050	3150	24.5	
40	57.0	50.0	35.0	52.5	20.3	1.2	2.1	1200	3600	26	

NISSEI

Ur=300Vac / U_{NDC}=560Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1	32.0	20.0	11.0	27.5	-	1.0	15.8	100	300	4	MPYCL0300-105D0B00055
1	32.0	20.0	11.0	27.5	-	0.8	15.8	100	300	4	
1.5	32.0	22.0	13.0	27.5	-	0.8	10.8	150	450	5	
2	32.0	24.5	15.0	27.5	-	0.8	8.4	200	600	6.5	
2.2	32.0	24.5	15.0	27.5	-	0.8	7.7	220	660	6.5	
2.5	32.0	28.0	14.0	27.5	-	0.8	7.0	250	750	7	
3	32.0	33.0	18.0	27.5	-	0.8	5.8	300	900	9	
3.3	32.0	33.0	18.0	27.5	-	0.8	5.3	330	990	9.5	
3.5	32.0	33.0	18.0	27.5	-	0.8	5.0	350	1050	9.5	
4	32.0	33.0	18.0	27.5	-	0.8	4.5	400	1200	10	
4.7	32.0	37.0	22.0	27.5	-	0.8	4.0	470	1410	10	
4.7	32.0	37.0	22.0	27.5	-	1.2	4.0	470	1410	12	
5	32.0	37.0	22.0	27.5	-	1.2	3.8	500	1500	12	
6.8	32.0	37.0	22.0	27.5	-	1.2	3.0	680	2040	13.5	
3	42.0	26.0	15.0	37.5	-	1.0	10.0	210	630	6.5	
3.3	42.0	26.0	15.0	37.5	-	1.0	9.2	231	693	7	
3.5	42.0	28.0	14.0	37.5	-	1.0	8.7	245	735	7.5	
4	42.0	32.0	17.0	37.5	-	1.0	7.8	280	840	8.5	
4.5	42.0	32.0	17.0	37.5	-	1.0	7.0	315	945	9	
4.7	42.0	32.0	17.0	37.5	-	1.0	6.7	329	987	9	
5	42.0	33.5	18.5	37.5	-	1.0	6.4	350	1050	9.5	
6	42.0	33.5	18.5	37.5	-	1.0	5.4	420	1260	10.5	
6.8	42.0	37.0	22.0	37.5	-	1.0	4.9	476	1428	12	

Ur =300Vac / U_{NDC}=560Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
8	42.0	37.0	22.0	37.5	-	1.0	4.3	560	1680	12.5	
10	42.0	41.0	26.0	37.5	-	1.2	3.7	700	2100	15	
12	42.0	43.0	28.0	37.5	-	1.2	3.3	840	2520	16.5	
15	42.0	45.0	30.0	37.5	-	1.2	2.8	1050	3150	18	
18	57.0	43.5	29.5	52.5	20.3	1.2	3.5	720	2160	18.5	
20	57.0	43.5	29.5	52.5	20.3	1.2	3.2	800	2400	19.5	
20	57.0	45.0	30.0	52.5	20.3	1.2	3.2	800	2400	19.5	
22	57.0	43.5	29.5	52.5	20.3	1.2	2.9	880	2640	20	
25	57.0	50.0	35.0	52.5	20.3	1.2	2.7	1000	3000	23	
28	57.0	50.0	35.0	52.5	20.3	1.2	2.5	1120	3360	24	

NISSEI

Ur =350Vac / U_{NDC}=600Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1	32	22	13	27.5	-	0.8	8.9	106	318	5.5	MPYCL0350-105D0B00055
1.5	32	25	14	27.5	-	0.8	6.5	159	477	7	
2	32	30	16	27.5	-	0.8	5.4	212	636	8.5	
2.2	32	30	16	27.5	-	0.8	5.0	233	699	9	
2.5	32	33	18	27.5	-	0.8	4.7	265	795	10	
3	32	37	22	27.5	-	0.8	4.4	318	954	10	
3.3	32	37	22	27.5	-	0.8	4.1	350	1050	10	
3.5	32	37	22	27.5	-	0.8	4.0	371	1113	10	
4	32	37	22	27.5	-	0.8	3.7	424	1272	10	
2	42	26	15	37.5	-	1.0	7.5	138	414	8	
2.2	42	26	15	37.5	-	1.0	6.9	152	456	8	
2.5	42	30	16	37.5	-	1.0	6.3	173	519	9	
3	42	30	16	37.5	-	1.0	5.4	208	624	10	
3.3	42	32	17	37.5	-	1.0	5.0	228	684	10.5	
4	42	33.5	18.5	37.5	-	1.0	4.4	277	831	12	
4	42	33.5	18.5	37.5	10.2	1.0	3.8	277	831	12.5	
5	42	37	22	37.5	-	1.0	3.8	346	1038	13.5	
5	42	37	22	37.5	10.2	1.0	3.2	346	1038	15	
8	42	41	26	37.5	-	1.0	2.9	554	1662	14	
8	42	41	26	37.5	10.2	1.0	2.3	554	1662	19	
9	42	45	30	37.5	-	1.0	2.8	623	1869	14	
9	42	45	30	37.5	20.3	1.2	1.9	623	1869	22	
12	57	43.5	29.5	52.5	20.	1.2	2.5	546	1638	22	
15K	57	45	35	52.5	20.	1.2	2.1	682	2046	25	
18	57	50	35	52.5	20.	1.2	1.9	818	2454	27.5	
20	57	57	38	52.5	20.	1.2	1.8	909	2727	30	
25	57	55	45	52.5	20.	1.2	1.5	1136	3408	32	

NISSEI

Ur=400Vac / U_{NDC}=700Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1	32	25	14	27.5	-	0.8	8.4	121	363	6.5	MPYCL0400-105D0B00055
2	32	33	18	27.5	-	0.8	5.2	243	729	9.5	
3K	32	37	22	27.5	-	0.8	4.2	364	1092	10	
1.5	42	25	14	37.5	-	1.0	8.8	119	357	7	
2.5	42	32	17	37.5	-	1.0	5.8	198	594	10	
3	42	33.5	18.5	37.5	-	1.0	5.0	237	711	11	
3	42	33.5	18.5	37.5	10.2	1.0	4.5	237	711	11.5	
4.5K	42	37	22	37.5	-	1.0	3.8	356	1068	13.5	
4.5K	42	37	22	37.5	10.2	1.0	3.2	356	1068	15	
6K	42	41	26	37.5	-	1.0	3.2	475	1425	14	
6K	42	41	26	37.5	10.2	1.0	2.6	475	1425	17.5	
7K	42	43	28	37.5	-	1.0	3.0	526	1578	14	
7K	42	43	28	37.5	10.2	1.0	2.4	526	1578	19.5	
8	42	50	30	37.5	-	1.0	3.0	633	1899	14	
8	42	50	30	37.5	20.3	1.2	2.0	633	1899	22.5	
10K	42	50	35	37.5	20.3	1.2	1.7	791	2373	25.5	
10	57	43.5	29.5	52.5	20.3	1.2	2.6	520	1560	21.5	
15K	57	50	35	52.5	20.3	1.2	2.0	740	2220	27	
18	57	57	38	52.5	20.3	1.2	1.8	935	2805	30	

NISSEI

Ur=450Vac / U_{NDC}=800Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1.5	32	33	18	27.5	-	0.8	6.1	205	615	8.5	MPYCL0450-155D0B00055
2.2	32	37	22	27.5	-	0.8	4.8	300	900	10	
1.5	42	26	15	37.5	-	1.0	8.2	133	399	7.5	
2.2	42	32	17	37.5	-	1.0	6.0	196	588	9.5	
3.3	42	37	22	37.5	-	1.0	4.5	294	882	12.5	
3.3	42	37	22	37.5	10.2	1.0	3.9	294	882	13.5	
4.7	42	41	26	37.5	-	1.0	3.6	418	1254	14	
4.7	42	41	26	37.5	10.2	1.0	3.0	418	1254	16.5	
5	42	43	28	37.5	-	1.0	3.5	445	1335	14	
5	42	43	28	37.5	10.2	1.0	2.8	445	1335	17.5	
7	42	50	30	37.5	20.3	1.2	2.1	623	1869	22	
8	42	50	35	37.5	20.3	1.2	1.9	712	2136	24	
10	42	55	40	37.5	20.3	1.2	1.6	890	2670	27.5	
8	57	43.5	29.5	52.5	20.3	1.2	2.9	468	1404	20	
10	57	50	35	52.5	20.3	1.2	2.5	584	1752	24	
15K	57	57	38	52.5	20.3	1.2	1.9	833	2499	29.5	

Ur=500Vac / U_{NDC}=900Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1K	32	28	17	27.5	-	0.8	7.7	152	456	7	MPYCL0500K105D0B00055
1.5	32	37	22	27.5	-	0.8	5.9	227	681	9.5	
1.5	42	32	17	37.5	-	1.0	7.8	148	444	8.5	
2	42	33.5	18.5	37.5	-	1.0	6.1	198	594	10	
2.5	42	37	22	37.5	-	1.0	5.2	282	846	11.5	
3.5	42	41	26	37.5	-	1.0	4.1	346	1038	14	
3.5	42	41	26	37.5	10.2	1.0	3.5	346	1038	15.5	
4	42	43	28	37.5	-	1.0	3.8	396	1188	14	
4	42	43	28	37.5	10.2	1.0	3.2	396	1188	16.5	
5	42	50	30	37.5	-	1.0	3.5	494	1482	14	
5	42	50	30	37.5	20.3	1.2	2.5	494	1482	20	
6	42	50	35	37.5	20.3	1.2	2.2	593	1779	22.5	
8	42	55	40	37.5	20.3	1.2	1.8	791	2373	26.5	
6.8	57	43.5	29.5	52.5	20.3	1.2	3.1	442	1326	19.5	
9	57	50	35	52.5	20.3	1.2	2.5	584	1752	24	
12K	57	57	38	52.5	20.3	1.2	2.1	740	2220	28	

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Ur=550Vac / U_{NDC}=1000Vdc											
C (μF)	W	H	T	P	P1	d	ESR@10KHz (mΩ)	$\hat{I}$ (A)	$\hat{I}_s$ (A)	I_{RMS} (A)	产品代码 Part number
1	32	33	18	27.5	-	0.8	7.6	167	501	8	MPYCL0550-105D0B00055
1.5	32	37	22	27.5	-	0.8	5.7	250	750	10	
1.5	42	33.5	18.5	37.5	-	1.0	7.4	163	489	9	
2.2	42	37	22	37.5	-	1.0	5.4	239	717	11.5	
3	42	41	26	37.5	-	1.0	4.4	326	978	13.5	
3	42	41	26	37.5	10.2	1.0	3.8	326	978	14.5	
3.5	42	43	28	37.5	-	1.0	4.0	381	1143	14	
3.5	42	43	28	37.5	10.2	1.0	3.3	381	1143	16	
5	42	50	35	37.5	20.3	1.2	2.4	544	1632	21.5	
6	42	55	40	37.5	20.3	1.2	2.1	653	1959	24.5	
5	57	43.5	29.5	52.5	20.3	1.2	3.8	357	1071	17.5	
7.5	57	50	35	52.5	20.3	1.2	2.7	536	1608	23	
10K	57	57	38	52.5	20.3	1.2	2.2	679	2037	27	

备注：

“-”：客户要求的容量偏差;

ESR 值为 f=10KHz 下的典型值;

I_{RMS} 值为 f=10KHz、Tamb=85℃、散热条件 10W/m^2/℃、△ Tcase≤15℃ 的最大电流有效值.

“-”=custom’s capacitor tolerance code, J=±5%, K=±10%;

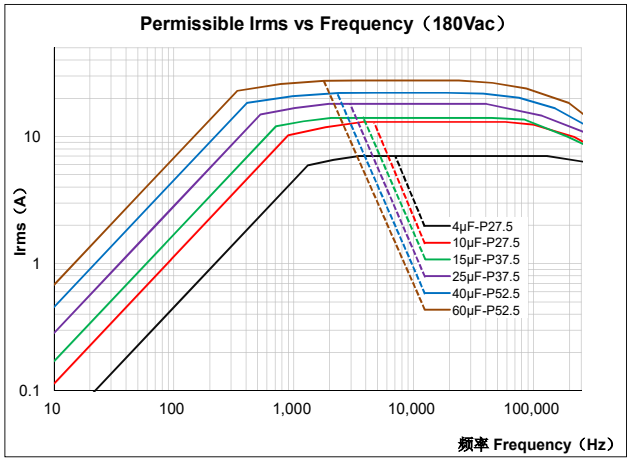
ESR typical values at 10KHz;

I_{RMS} is the maximum R.M.S current at 10KHz、Tamb=85℃、△Tcase≤15℃.(Coefficient of heat dissipation：10W/m^2/℃)

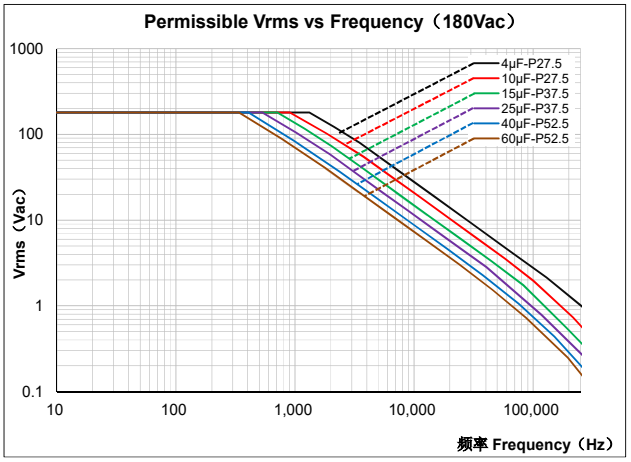
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■有效值交流电压&电流频率曲线 Permissible Vrms &Irms vs Frequency

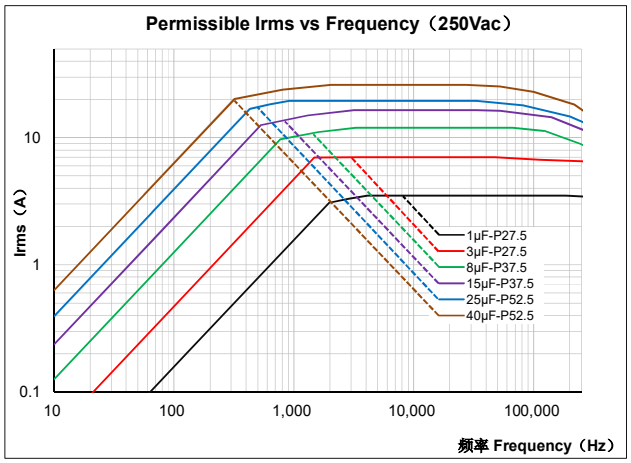
180Vac-P27.5~P52.5mm (Irms):



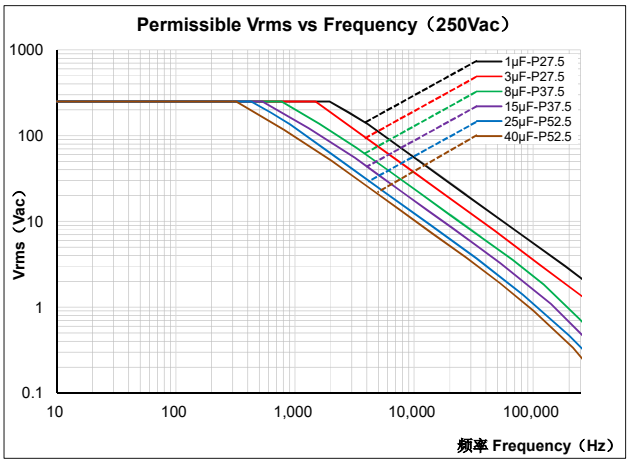
180Vac-P27.5~P52.5mm (Vrms):



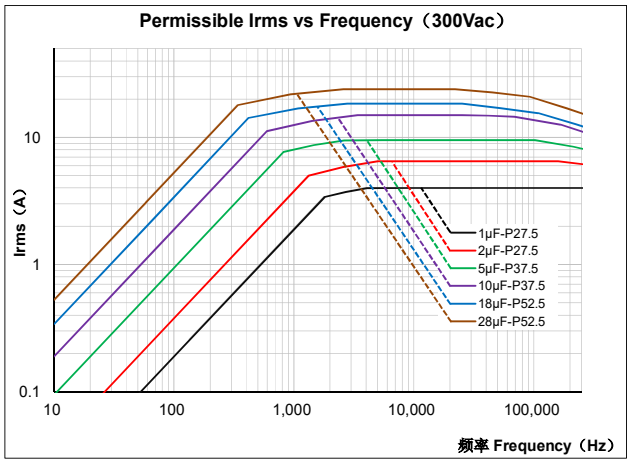
250Vac-P27.5~P52.5mm (Irms):



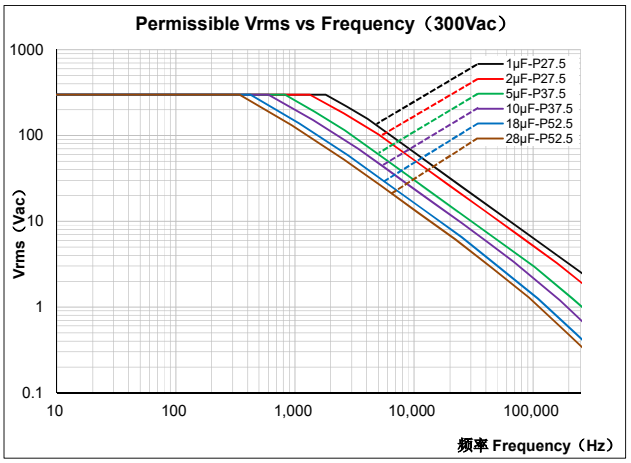
250Vac-P27.5~P52.5mm (Vrms):



300Vac-P27.5~P52.5mm (Irms):

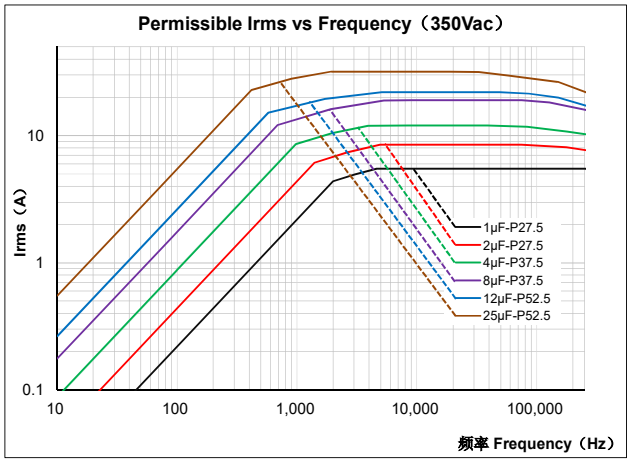


300Vac-P27.5~P52.5mm (Vrms):

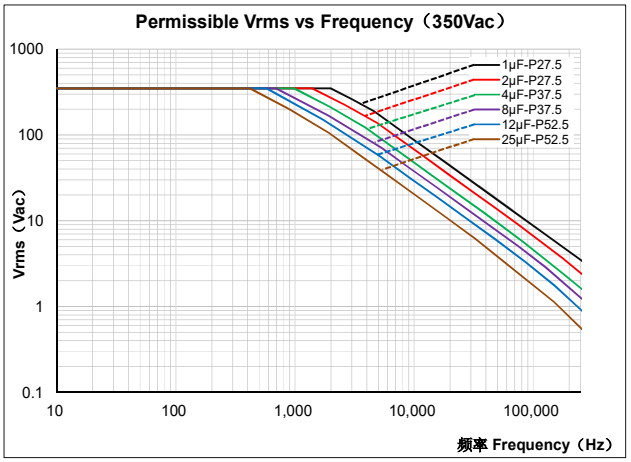


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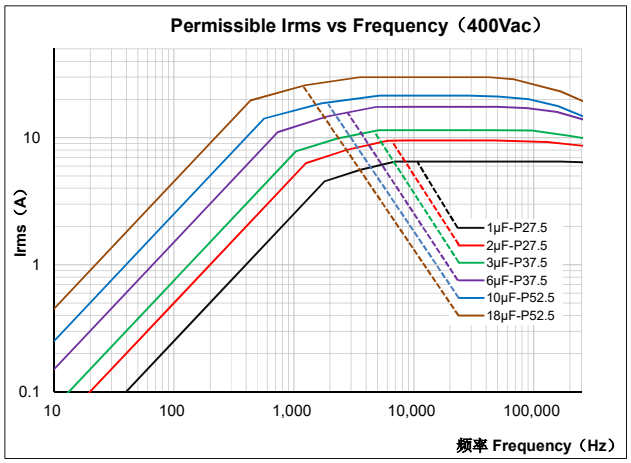
350Vac-P27.5~P52.5mm (Irms):



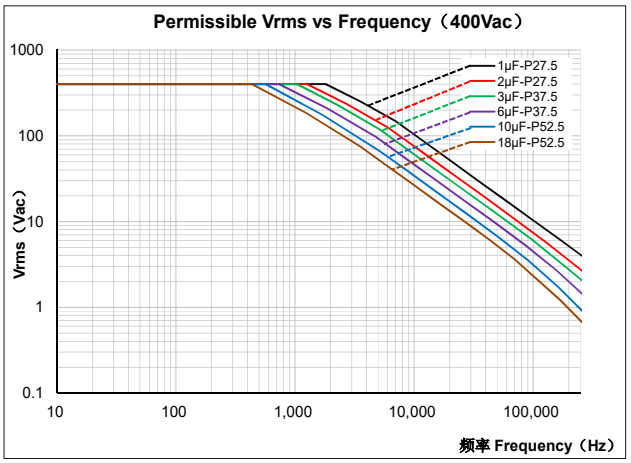
350Vac-P27.5~P52.5mm (Vrms):



400Vac-P27.5~P52.5mm (Irms):

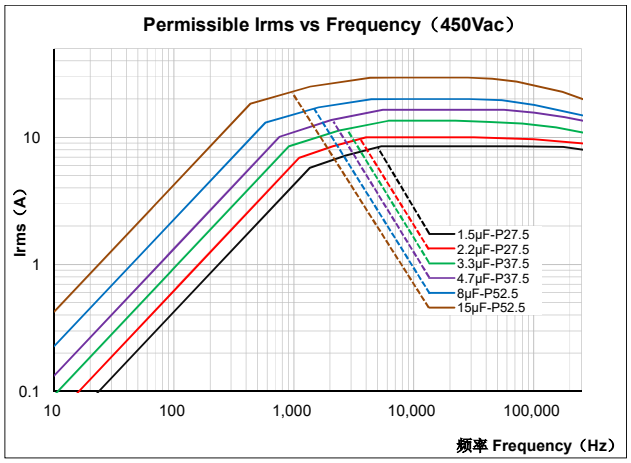


400Vac-P27.5~P52.5mm (Vrms):

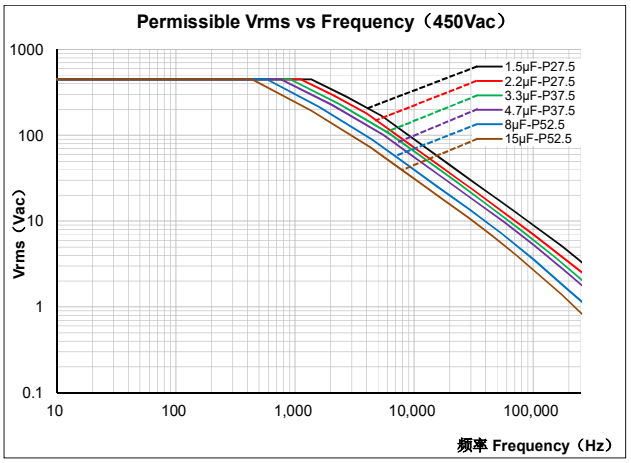


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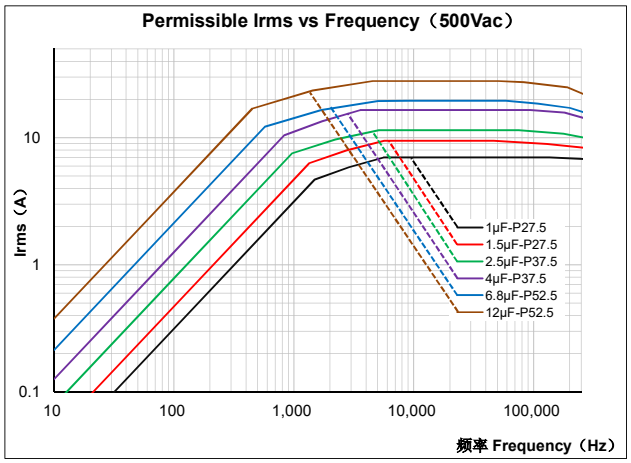
450Vac-P27.5~P52.5mm (Irms):



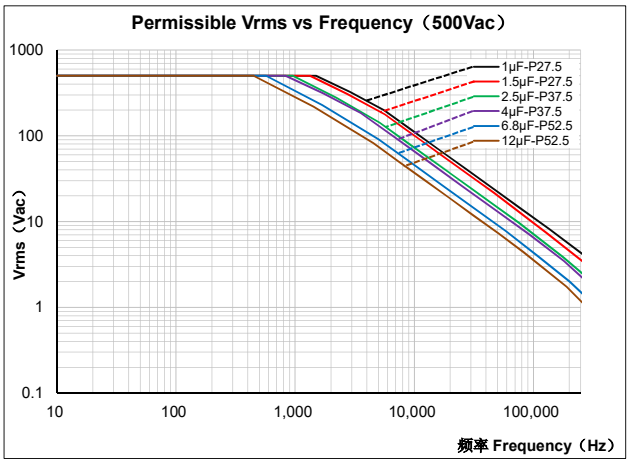
450Vac-P27.5~P52.5mm (Vrms):



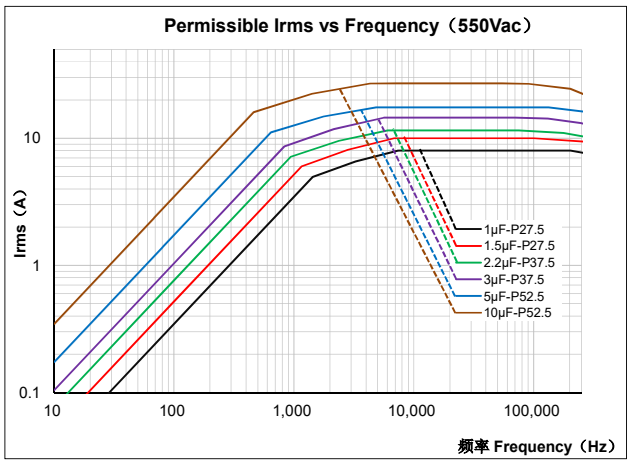
500Vac-P27.5~P52.5mm (Irms):



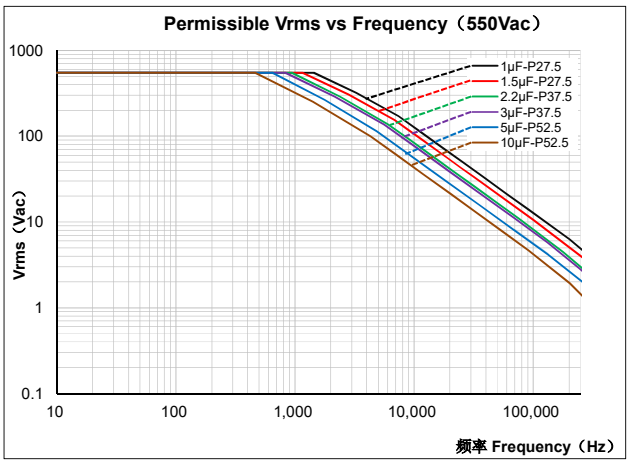
500Vac-P27.5~P52.5mm (Vrms):



550Vac-P27.5~P52.5mm (Irms):



550Vac-P27.5~P52.5mm (Vrms):



注：

纹波电流或纹波电压值基于 Tamb=85℃条件下；

产品散热系数：10W/m^2/℃；

当 f≥100KHz，Irms 和 Vrms 仅供参考。

Note:

Permissible Vrms &Irms curves frequency f at Tamb=85℃;

Coefficient of heat dissipation：10W/m^2/℃;

At f≥100KHz，Irms & Vrms are only for reference.

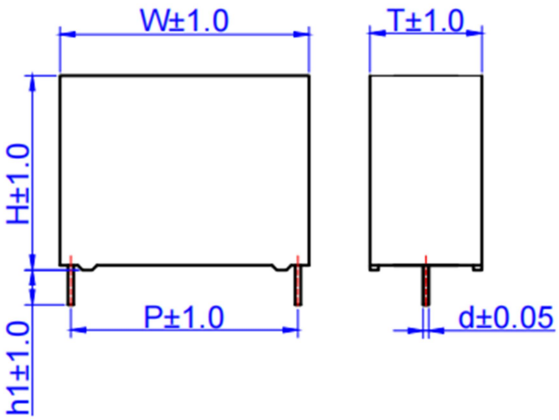
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B17:Series/Type 系列/类型: MPH 系列

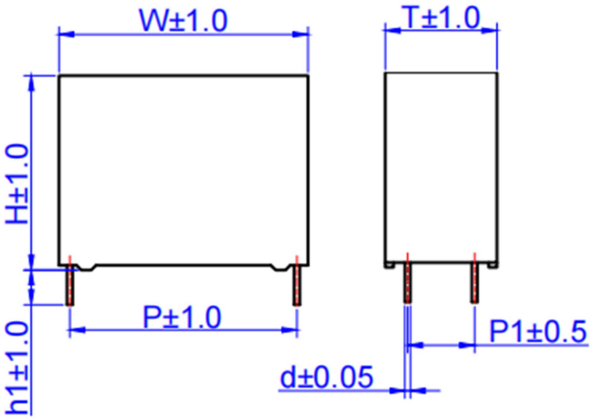
MPH 系列 IGBT 吸收电容器（PCB）

MPH Series Snubber capacitor for IGBT（PCB）

■ 外形图 Outline Drawing



2Pins



4Pins

■ 特点

广泛应用于高压高频脉冲电路中

损耗小，内部温升小

优异的阻燃性能

适合作为 IGBT 的吸收电容

■ Features

Widely used in high voltage, high frequency circuit

Low loss and small inherent temperature rise

Excellent active and passive flame resistant abilities

Especially designed as snubber capacitor for IGBT

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T17702(IEC61071)	
气候类别 Climatic Category	40/85/56	
工作温度（外壳）Operating Temperature Range（case）	-40℃ ~ +85℃	
额定电压($U_{N,85℃}$) RatedVoltage($U_{N,85℃}$)	630Vdc~3000Vdc	
电容量偏差 Capacitance Tolerance	±5%(J)、±10%(K)	
耐电压 Voltage Proof	1.5U_N(10s)	
损耗角正切 Dissipation Factor	5×10^{-4}(20℃，1kHz	
绝缘电阻 Insulation Resistance ($IR\times C_N$)	IR≥100 000MΩ，C_N≤0.33μF	（20℃，100Vdc，1min）
	IR×C_N≥3000S，C_N＞0.33μF	
预期寿命 Expected life time	100 000 hours @ U_N，θ_{hs}=70℃	

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■ 产品代码编写说明：Part number code system:

21 位产品代码如下：The 21digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
M	P	H	C		0	7	0	0	-	6	8	4	D	0	B	0	0	0	5	5

第 1~4 位 Digit 1 to 4	系列代码 Series code	MPY=系列; C=引线切割型 MPY=Series C=Lead cut tape
第 5 位 Digit 5	内部特征码 Internal use	
第 6~9 位 Digit 6 to 9	额定电压 Rated voltage	
第 10 位 Digit 10	容量偏差范围 Capacitance tolerance	K=±10%; J=±5%
第 11~13 位 Digit 11 to 13	标称容量 Rated Capacitance value	前两位数为标称容量的有效数字，第 3 位数为有效数字后面 0 的个数， 单位为 pF The first two digits represent the significant figures of the nominal capacitance, and the third digit indicates the number of zeros following the significant figures. The unit is pF.
第 14~15 位 Digit 14 to 15	内部编码 Internal use	
第 16 位 Digit 16	P 尺寸 P Size	6=15mm 9=22.5mm B=27.5mm F=37.5mm M=52.5mm
第 17 位 Digit 17	P2 尺寸 P2 Size	0=2 引线 A=4 引线；P2=20.3 B=4 引线；P2=10.2 0=2pins A=4pins P2=20.3 B=4pins P2=10.2 C=4 引线；P2=12.7 D=4 引线；P2 为特殊尺寸 C=4 pins P2=12.7 D=4pins P2 Special size
第 18~21 位 Digit 18 to 21	引线加工尺寸 Lead form size	0055=引线长度 5.5±0.5mm 0055= Lead length 5.5±0.5mm

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■ 产品尺寸及性能参数：**Product Dimension and Characteristic Data:**

700Vdc/420Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.68	37.0	25.0	15.0	32.5	-	1.2	900	612	11	6.0	MPHC 0700-684D0D00055
0.68	37.0	25.0	15.0	32.5	5.1	1.0	900	612	13	5.0	
0.82	37.0	25.0	15.0	32.5	-	1.2	900	738	11.5	6.0	
0.82	37.0	25.0	15.0	32.5	5.1	1.0	900	738	13.5	5.0	
1.0	37.0	30.0	16.0	32.5	-	1.2	900	900	12	6.0	
1.0	37.0	30.0	16.0	32.5	5.1	1.0	900	900	14	5.0	
1.2	37.0	30.0	16.0	32.5	-	1.2	900	1080	14	5.5	
1.2	37.0	30.0	16.0	32.5	5.1	1.0	900	1080	16	4.5	
1.5	37.0	34.0	20.0	32.5	-	1.2	900	1350	14	5.5	
1.5	37.0	34.0	20.0	32.5	10.2	1.0	900	1350	17	4.5	
1.8	37.0	34.0	20.0	32.5	-	1.2	900	1620	14	5.5	
1.8	37.0	34.0	20.0	32.5	10.2	1.0	900	1620	18	4.5	
2.0	42.0	40.0	20.0	37.5	-	1.2	600	1200	14	5.0	
2.0	42.0	40.0	20.0	37.5	10.2	1.2	600	1200	18	4.0	
2.2	42.0	40.0	20.0	37.5	-	1.2	600	1320	14	5.0	
2.2	42.0	40.0	20.0	37.5	10.2	1.2	600	1320	18.5	4.0	
2.5	42.0	40.0	20.0	37.5	-	1.2	600	1500	14	5.0	
2.5	42.0	40.0	20.0	37.5	10.2	1.2	600	1500	19	4.0	
3.0	42.0	44.0	24.0	37.5	-	1.2	600	1800	14	5.0	
3.0	42.0	44.0	24.0	37.5	12.7	1.2	600	1800	20	4.0	
3.3	42.0	44.0	24.0	37.5	-	1.2	600	1980	14	4.5	
3.3	42.0	44.0	24.0	37.5	12.7	1.2	600	1980	20	3.5	
4.0	42.0	44.0	24.0	37.5	-	1.2	600	2400	14	4.5	
4.0	42.0	44.0	24.0	37.5	12.7	1.2	600	2400	21	3.5	
4.7	42.0	45.0	30.0	37.5	20.3	1.2	600	2820	23	3.5	
5.0	42.0	45.0	30.0	37.5	20.3	1.2	600	3000	23.5	3.0	
6.0	42.0	43.0	42.0	37.5	20.3	1.2	600	3600	25	3.0	
6.5	42.0	43.0	42.0	37.5	20.3	1.2	600	3900	26	3.0	
6.5	57.0	45.0	30.0	52.5	20.3	1.2	360	2340	24	2.5	
7.0	57.0	45.0	30.0	52.5	20.3	1.2	360	2520	25	2.5	
8.0	57.0	50.0	35.0	52.5	20.3	1.2	360	2880	27	2.5	
9.0	57.0	50.0	35.0	52.5	20.3	1.2	360	3240	28	2.5	

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900Vdc/450Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.47	37.0	25.0	15.0	32.5	-	1.2	1200	564	13	6.0	MPHC 0+00-474D0D00055
0.47	37.0	25.0	15.0	32.5	5.1	1.0	1200	564	15	5.0	
0.68	37.0	30.0	16.0	32.5	-	1.2	1200	816	14	6.0	
0.68	37.0	30.0	16.0	32.5	5.1	1.0	1200	816	16	5.0	
0.82	37.0	30.0	16.0	32.5	-	1.2	1200	1200	14	6.0	
0.82	37.0	30.0	16.0	32.5	5.1	1.0	1200	1200	17	5.0	
1.2	37.0	34.0	20.0	32.5	-	1.2	1200	1440	14	6.0	
1.2	37.0	34.0	20.0	32.5	10.2	1.0	1200	1440	17.5	5.0	
1.5	37.0	34.0	20.0	32.5	-	1.2	1200	1800	14	6.0	
1.5	37.0	34.0	20.0	32.5	10.2	1.0	1200	1800	18	5.0	
1.5	42.0	40.0	20.0	37.5	-	1.2	750	1125	14	5.5	
1.5	42.0	40.0	20.0	37.5	10.2	1.2	750	1125	18.5	4.5	

900Vdc/450Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
2.0	42.0	40.0	20.0	37.5	-	1.2	750	1500	14	5.5	
2.0	42.0	40.0	20.0	37.5	10.2	1.2	750	1500	19	4.5	
2.2	42.0	40.0	20.0	37.5	-	1.2	750	1650	14	5.5	
2.2	42.0	40.0	20.0	37.5	10.2	1.2	750	1650	19.5	4.5	
2.5	42.0	44.0	24.0	37.5	-	1.2	750	1875	14	5.5	
2.5	42.0	44.0	24.0	37.5	12.7	1.2	750	1875	20	4.5	
3.0	42.0	44.0	24.0	37.5	-	1.2	750	2250	14	5.5	
3.0	42.0	44.0	24.0	37.5	12.7	1.2	750	2250	21	4.5	
3.3	42.0	45.0	30.0	37.5	20.3	1.2	750	2475	21.5	4.5	
4.0	42.0	43.0	42.0	37.5	20.3	1.2	750	3000	22	4.5	
4.0	57.0	45.0	30.0	52.5	20.3	1.2	450	1800	23	4.0	
4.7	57.0	45.0	30.0	52.5	20.3	1.2	450	2115	24.5	4.0	
5.0	57.0	45.0	30.0	52.5	20.3	1.2	450	2250	25	4.0	
6.0	57.0	50.0	35.0	52.5	20.3	1.2	450	2700	26	4.0	
6.5	57.0	50.0	35.0	52.5	20.3	1.2	450	2925	27	4.0	

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1000Vdc/500Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.47	37.0	25.0	15.0	32.5	-	1.2	1300	611	12	6.0	MPHC 1000-474D0D00055
0.47	37.0	25.0	15.0	32.5	5.1	1.0	1300	611	14	5.0	
0.68	37.0	30.0	16.0	32.5	-	1.2	1300	884	13	6.0	
0.68	37.0	30.0	16.0	32.5	5.1	1.0	1300	884	15	5.0	
0.82	37.0	30.0	16.0	32.5	-	1.2	1300	1066	14	6.0	
0.82	37.0	30.0	16.0	32.5	5.1	1.0	1300	1066	16	5.0	
1.0	37.0	34.0	20.0	32.5	-	1.2	1300	1300	14	5.5	
1.0	37.0	34.0	20.0	32.5	10.2	1.0	1300	1300	17	4.5	
1.2	37.0	34.0	20.0	32.5	-	1.2	1300	1560	14	5.5	
1.2	37.0	34.0	20.0	32.5	10.2	1.0	1300	1560	17	4.5	
1.2	42.0	40.0	20.0	37.5	-	1.2	850	1020	14	5.5	
1.2	42.0	40.0	20.0	37.5	10.2	1.2	850	1020	16	4.5	
1.5	42.0	40.0	20.0	37.5	-	1.2	850	1275	14	5.5	
1.5	42.0	40.0	20.0	37.5	10.2	1.2	850	1275	16	4.5	
2.0	42.0	44.0	24.0	37.5	-	1.2	850	1700	14	5.5	
2.0	42.0	44.0	24.0	37.5	12.7	1.2	850	1700	17	4.5	
2.2	42.0	44.0	24.0	37.5	-	1.2	850	1870	14	5.0	
2.2	42.0	44.0	24.0	37.5	12.7	1.2	850	1870	20	4.0	
2.5	42.0	45.0	30.0	37.5	20.3	1.2	850	2125	21	4.0	
3.0	42.0	45.0	30.0	37.5	20.3	1.2	850	2550	21.5	4.0	
3.3	42.0	43.0	42.0	37.5	20.3	1.2	850	2805	22	4.0	
3.3	57.0	45.0	30.0	52.5	20.3	1.2	500	1650	20	4.0	
4.0	57.0	45.0	30.0	52.5	20.3	1.2	500	2000	21	4.0	
4.7	57.0	50.0	35.0	52.5	20.3	1.2	500	2350	22	4.0	
5.0	57.0	50.0	35.0	52.5	20.3	1.2	500	2500	23	4.0	

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1250Vdc/600Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.33	37.0	25.0	15.0	32.5	-	1.2	1500	495	11	6.5	MPHC 1250-334D0D00055
0.33	37.0	25.0	15.0	32.5	5.1	1.0	1500	495	13	5.5	
0.47	37.0	30.0	16.0	32.5	-	1.2	1500	705	12	6.5	
0.47	37.0	30.0	16.0	32.5	5.1	1.0	1500	705	14	5.5	
0.68	37.0	34.0	20.0	32.5	-	1.2	1500	1020	13	6.0	
0.68	37.0	34.0	20.0	32.5	10.2	1.0	1500	1020	15	5.0	
0.75	37.0	34.0	20.0	32.5	-	1.2	1500	1125	15	6.0	
0.75	37.0	34.0	20.0	32.5	10.2	1.0	1500	1125	17	5.0	
0.47	42.0	40.0	20.0	37.5	-	1.2	950	447	13	6.0	
0.47	42.0	40.0	20.0	37.5	10.2	1.2	950	447	15	5.0	
0.68	42.0	40.0	20.0	37.5	-	1.2	950	646	14	6.0	
0.68	42.0	40.0	20.0	37.5	10.2	1.2	950	646	17	5.0	
0.82	42.0	40.0	20.0	37.5	-	1.2	950	779	14	6.0	
0.82	42.0	40.0	20.0	37.5	10.2	1.2	950	779	17	5.0	
1.0	42.0	40.0	20.0	37.5	-	1.2	950	950	14	6.0	
1.0	42.0	40.0	20.0	37.5	10.2	1.2	950	950	17	5.0	
1.2	42.0	44.0	24.0	37.5	-	1.2	950	1140	14	5.5	
1.2	42.0	44.0	24.0	37.5	12.7	1.2	950	1140	17.5	4.5	
1.5	42.0	44.0	24.0	37.5	-	1.2	950	1425	14	5.5	
1.5	42.0	44.0	24.0	37.5	12.7	1.2	950	1425	17.5	4.5	
2.0	42.0	45.0	30.0	37.5	20.3	1.2	950	1900	18	4.5	
2.2	42.0	43.0	42.0	37.5	20.3	1.2	950	2090	19	4.5	
2.5	42.0	43.0	42.0	37.5	20.3	1.2	950	2375	20	4.5	
2.2	57.0	45.0	30.0	52.5	20.3	1.2	600	1320	19	4.0	
2.5	57.0	45.0	30.0	52.5	20.3	1.2	600	1500	20	4.0	
3.0	57.0	50.0	35.0	52.5	20.3	1.2	600	1800	21	4.0	
3.3	57.0	50.0	35.0	52.5	20.3	1.2	600	1980	22	4.0	
4.0	57.0	50.0	35.0	52.5	20.3	1.2	600	2400	23	4.0	

1600Vdc/650Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.22	37.0	25.0	15.0	32.5	-	1.2	1800	396	11	7.5	MPHC 1600-224D0B00055
0.22	37.0	25.0	15.0	32.5	5.1	1.0	1800	396	13	6.5	
0.33	37.0	30.0	16.0	32.5	-	1.2	1800	594	11.5	7.5	
0.33	37.0	30.0	16.0	32.5	5.1	1.0	1800	594	13.5	6.5	
0.39	37.0	34.0	20.0	32.5	-	1.2	1800	702	12	7.0	
0.39	37.0	34.0	20.0	32.5	10.2	1.0	1800	702	14	6.0	
0.47	37.0	34.0	20.0	32.5	-	1.2	1800	846	13	7.0	
0.47	37.0	34.0	20.0	32.5	10.2	1.0	1800	846	15	6.0	
0.47	42.0	40.0	20.0	37.5	-	1.2	1200	564	13	6.0	
0.47	42.0	40.0	20.0	37.5	10.2	1.2	1200	564	15	5.0	
0.68	42.0	40.0	20.0	37.5	-	1.2	1200	816	14	6.0	
0.68	42.0	40.0	20.0	37.5	10.2	1.2	1200	816	16	5.0	
0.82	42.0	44.0	24.0	37.5	-	1.2	1200	984	14	5.0	
0.82	42.0	44.0	24.0	37.5	12.7	1.2	1200	984	17	4.0	
1.0	42.0	45.0	30.0	37.5	20.3	1.2	1200	1200	17.5	4.0	

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1600Vdc/650Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
1.2	42.0	45.0	30.0	37.5	20.3	1.2	1200	1440	18	4.0	
1.5	42.0	43.0	42.0	37.5	20.3	1.2	1200	1800	19	4.0	
1.5	57.0	45.0	30.0	52.5	20.3	1.2	750	1125	20	4.0	
2.0	57.0	50.0	35.0	52.5	20.3	1.2	750	1500	22	4.0	
2.2	57.0	50.0	35.0	52.5	20.3	1.2	750	1650	23	4.0	

2000Vdc/700Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （v/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.10	37.0	25.0	15.0	32.5	-	1.2	2100	210	10	9.5	MPHC 2000-104D0D00055
0.10	37.0	25.0	15.0	32.5	5.1	1.0	2100	210	12	8.5	
0.15	37.0	25.0	15.0	32.5	-	1.2	2100	315	11	9.5	
0.15	37.0	25.0	15.0	32.5	5.1	1.0	2100	315	13	8.5	
0.22	37.0	30.0	16.0	32.5	-	1.2	2100	462	11.5	8.0	
0.22	37.0	30.0	16.0	32.5	5.1	1.0	2100	462	13.5	7.0	
0.33	37.0	34.0	20.0	32.5	-	1.2	2100	693	12	7.5	
0.33	37.0	34.0	20.0	32.5	10.2	1.0	2100	693	14	6.5	
0.47	42.0	40.0	20.0	37.5	-	1.2	1250	588	13	6.0	
0.47	42.0	40.0	20.0	37.5	10.2	1.2	1250	588	15	5.0	
0.56	42.0	44.0	24.0	37.5	-	1.2	1250	700	14	6.0	
0.56	42.0	44.0	24.0	37.5	12.7	1.2	1250	700	16	5.0	
0.68	42.0	44.0	24.0	37.5	-	1.2	1250	850	14	5.5	
0.68	42.0	44.0	24.0	37.5	12.7	1.2	1250	850	16.5	4.5	
0.82	42.0	45.0	30.0	37.5	20.3	1.2	1250	1025	17	4.5	
1.0	42.0	43.0	42.0	37.5	20.3	1.2	1250	1250	19	4.5	
1.2	42.0	43.0	42.0	37.5	20.3	1.2	1250	1500	20	4.0	
1.0	57.0	45.0	30.0	52.5	20.3	1.2	850	850	20	4.5	
1.2	57.0	45.0	30.0	52.5	20.3	1.2	850	1020	21	4.5	
1.5	57.0	50.0	35.0	52.5	20.3	1.2	850	1275	22	4.5	

2500Vdc/725Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.068	37.0	25.0	15.0	32.5	-	1.2	3230	220	10	10.0	MPHC 2500-683D0D00055
0.068	37.0	25.0	15.0	32.5	5.1	1.0	3230	220	12	9.0	
0.10	37.0	30.0	16.0	32.5	-	1.2	3230	323	11	10.0	
0.10	37.0	30.0	16.0	32.5	5.1	1.0	3230	323	13	9.0	
0.15	37.0	34.0	20.0	32.5	-	1.2	3230	485	12	9.5	
0.15	37.0	34.0	20.0	32.5	10.2	1.0	3230	485	14	8.5	
0.18	37.0	34.0	20.0	32.5	-	1.2	3230	581	13	9.0	
0.18	37.0	34.0	20.0	32.5	10.2	1.0	3230	581	15	8.0	
0.22	42.0	40.0	20.0	37.5	-	1.2	2100	462	13	5.5	
0.22	42.0	40.0	20.0	37.5	10.2	1.2	2100	462	15	4.5	
0.33	42.0	44.0	24.0	37.5	-	1.2	2100	693	13	5.5	
0.33	42.0	44.0	24.0	37.5	12.7	1.2	2100	693	15.2	4.5	

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2500Vdc/725Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.47	42.0	45.0	30.0	37.5	20.3	1.2	2100	987	16	4.0	
0.68	42.0	43.0	42.0	37.5	20.3	1.2	2100	1428	16.5	4.0	
0.68	57.0	43.5	29.5	52.5	20.3	1.2	1200	816	17	4.0	
1.0	57.0	50.0	35.0	52.5	20.3	1.2	1200	1200	17.5	4.0	

3000Vdc/750Vac											
C (μF)	W	H	T	P	P1	d	dv/dt （V/μs）	I_{peak} (A)	I_{RMS} (A)	ESR （mΩ）	产品代码 Part number
0.047	37.0	25.0	15.0	32.5	-	1.2	3361	158	9	10.5	MPHC 3000-473D0D00055
0.047	37.0	25.0	15.0	32.5	5.1	1.0	3361	158	11	9.5	
0.068	37.0	30.0	16.0	32.5	-	1.2	3361	229	10	10.0	
0.068	37.0	30.0	16.0	32.5	5.1	1.0	3361	229	12	9.0	
0.10	37.0	34.0	20.0	32.5	-	1.2	3361	336	11	9.5	
0.10	37.0	34.0	20.0	32.5	10.2	1.0	3361	336	13	8.5	
0.15	37.0	34.0	20.0	32.5	-	1.2	3361	504	11.5	9.0	
0.15	37.0	34.0	20.0	32.5	10.2	1.0	3361	504	13.5	8.0	
0.22	42.0	40.0	20.0	37.5	-	1.2	2050	451	12	7.0	
0.22	42.0	40.0	20.0	37.5	10.2	1.2	2050	451	14	6.0	
0.33	42.0	45.0	30.0	37.5	20.3	1.2	2050	677	14.5	5.5	
0.47	42.0	43.0	42.0	37.5	20.3	1.2	2050	964	16	5.0	
0.47	57.0	43.5	29.5	52.5	20.3	1.2	1200	564	16.5	5.0	
0.68	57.0	50.0	35.0	52.5	20.3	1.2	1200	816	17	5.0	
0.82	57.0	50.0	35.0	52.5	20.3	1.2	1200	984	18	4.5	

备注：

“-”：容量偏差;

“***”：引出端代码（见表 1）；

ESR 值为 f=100KHz 下的典型值;

I_{RMS} 值为 f=100KHz、Tamb=85℃、散热条件 10W/m^2/℃、△ Tcase≤15℃ 的最大电流有效值.

“-”= tolerance code, J=±5%, K=±10%, M=±20%；

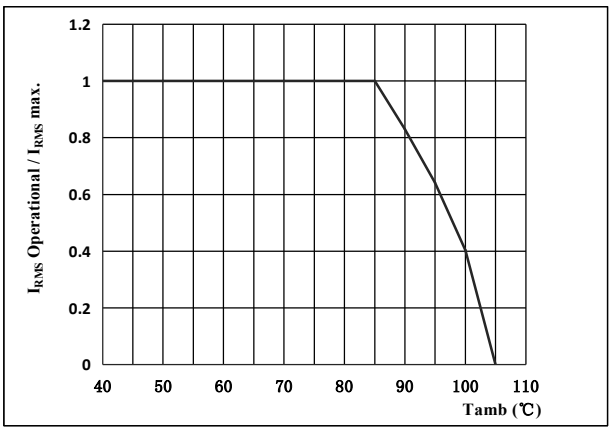
“***”=Terminals code (refer to table 1）；

ESR typical values at 100KHz；

I_{RMS} is the maximum R.M.S current at 100KHz 、Tamb=85℃、

△ Tcase≤15℃ .(Coefficient of heat dissipation：10W/m^2/℃)

■ 纹波电流降额曲线 I_{RMS}Derating vs Ambient Temperature:





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