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## 关于我们

**东莞市世峰电容有限公司**是中国薄膜电容器和工业类电容器主要生产厂商。集研发、生产、销售与售后服务于一体的高科技企业。

世峰自企业成立以来始终坚持：人才是企业之本、创新是企业之魂、管理是企业之基。历经十多年的发展，沉淀积累了大量电容器方面的技术和经验。拥有一批经验丰富的研发工程师。自主研发出多种试验设备。为各种不同的应用领域，研制生产出可靠、实用、性能优良的专业电容器,以满足客户的潜在需求。

公司拥有国内外最先进的生产、检测、实验设备。具有自动化程度高、精密度高等一系列优点。为预防产品早期失效提供了安全保障。

世峰电容有限公司是国内电容器行业大型企业生产商。公司创建的"YY"品牌电容器产品规格齐全、性能稳定。被广泛应用于LED驱动电源、节能灯、整流器、音响设备、车载电子设备、安防产品、网络通讯、变频器、UPS电源、通讯电源、开关电源、小家电、电焊机、医疗设备等。

面对新的机遇，创新研发出电动汽车、电力机车、充电桩、混合动力汽车、风能、太阳能、逆变电源、大功率电源、超高压电源、高压变频器、高压输变电和各类新能源专用的DC-Link电容器。

公司通过了ISO9001国际质量管理体系认证，ISO14001环境管理体系认证。并获得VDE、UL、CQC等安全认证。

根据客户的个性需求独立研发、设计、创造出客户满意的产品，多年来坚持卓越的品质、合理的价格、完善的售前、售后服务，实施持续质量改进、不断创新、锐意进取。从研发、生产、销售服务，无不体现宇信源人对产品精益求精的追求和严格履行。本着以人为本、诚信经营、励志创新、质量第一、客户至上的企业理念，本着相互协作、平等互惠、共同发展的原则。立足中国，放眼全球。凭借先进的管理能力、互联网+和强大的科研实力、与时俱进，稳步推进全球化战略，在中国乃至全世界建立更加完善的生产、销售与服务体系，竭诚为顾客服务。我们期待与您合作携手共创辉煌!



## COMPANY PROFILE

### DONG GUAN SHI SHIFENG CAPACITOR CO., LTD.

Is a Chinese film capacitor and the industrial type of capacitor main manufacturers. Set research and development, production, sales and after-sales service in one of the high-tech enterprises.

SF letter from enterprise since its inception always adhere to: talent is the soul of enterprise, innovation is the soul of enterprise, management is the foundation of the enterprise.

After ten years of development, the precipitation technology and experience accumulated a large capacitor. Has a group of seasoned r&d engineers. Independently developed a variety of testing equipment. The development and production for a variety of applications, the reliable, practical, professional capacitor with excellent properties to meet the potential needs of customers. The company has domestic and foreign most advanced production, testing and experiment equipment. With a high degree of automation, high precision of a series of advantages. Provide security to prevent premature failure of the product.

SF source electronics co., LTD. Is a large enterprise domestic capacitor industry manufacturers. Company to create "YY" brand capacitor product specifications complete, stable performance. Is widely used in the LED drive power supply, energy-saving lamps, rectifier, audio equipment, automotive electronics, security products, network communication, inverter, UPS power supply, communication power supply, switching power supplies, small appliances, electric welding machine, medical equipment, etc.

Facing new opportunities and innovation to develop electric cars, electric locomotive, charging pile, hybrid cars, wind energy, solar energy, inverter power supply, power supply, ultra-high voltage power supply, high voltage inverter, high voltage power transmission and transformation, and all kinds of new energy for the DC Link capacitor.

Company has passed ISO9001 international quality management system certification, ISO14001 environmental management system certification. And obtained VDE, UL, CQC and other security certification.

According to the customer individuality demand of independent research and development, design, and create customer satisfaction products, over the years insist on excellent quality, reasonable price, perfect pre-sales, after-sales service, the implementation of continuous quality improvement, constant innovation and forge ahead. From the research and development, production, sales and service, all show you source people pursuit of product excellence and strictly implement.

In line with people-oriented, integrity management, inspiring innovation, quality first, customer first business philosophy, in line with the principle of mutual cooperation, equality and mutual benefit and common development. Based on China, think globally. With advanced management skills and Internet + and strong scientific research strength, advancing with The Times, steadily push forward the globalization strategy, set up in China and the world more perfect production, sales and service system, wholeheartedly for customer service. We are looking forward to cooperate with you hand in hand to create brilliant!

# SF'S ENTERPRISE IDEA

## 企业理念

**TALENT** 人才是企业之本  
**IS THE SOUL OF ENTERPRISE,**  
**INNOVATION** 创新是企业之魂  
**IS THE SOUL OF ENTERPRISE,**  
**MANAGEMENT** 管理是企业之基  
**IS THE FOUNDATION OF THE ENTERPRISE.**

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# SF'S PRODUCT STANDARD SYSTEM

## 产品标准体系



## 电子设备用薄膜电容器的标准体系

A FILM CAPACITOR, ELECTRONIC EQUIPMENT USE STANDARD SYSTEM

### THE STRUCTURE AND TERMS 结构及术语

电子设备用固定电容器的标准体系是由基础标准、总规范、分规范、空白详细规范，以及详细规范（即企业标准）组成。或者说，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。

总规范规定了分规范和详细规范中使用的标准术语、检验程序和试验方法。分规范是按电容器的介质和结构分类的，它是对该类电容器规定优先额定值和特性，并从产品规范中选择适当的质量说定程序、试验和测量方法，以及给出一般性能要求。空白详细规范是分规范的一种补充文件，它规定了详细规范的格式、编排和最基本的要求。

Fixed capacitors for use in electronic equipment with standard system is basis by standard, specification, specification, blank detail specification, and detailed specification (that is, the enterprise standard). Or, enterprise standard is the basic requirement of the specification according to the general specification and points, fill in the blank auspicious fine specification

Total specification defines dividers Fan Hexiang fine specification used in the standard terminology, test procedures and test method. Points specification are classified according to the medium and structure of the capacitor, it is for this kind of capacitor priority rating and features, and select the appropriate quality from product specification maybe program, test and measurement, and gives the general performance requirements. Blank auspicious fine specification is a kind of supplementary document points of the specification, it specifies the auspicious fine canonical format, layout and the basic requirements.

### FILM CAPACITOR STANDARD SYSTEM, FOR EXAMPLE AS FOLLOWS:

薄膜电容器的标准体系，举例如下：

标准号 (No.)	标准 (Standards)
GB 2693 (IEC 60384-1)	第1部分：总规范 Part 1: Generic specification
GB 7332 (IEC 60384-2)	第2部分：分规范：金属化聚酯膜介质直流固定电容器 Part 2: Sectional specification: Fixed metallized polyester film D.C. Capacitor
GB 7333 (IEC 60384-2-1)	第2部分：空白详细规范：金属化聚酯膜介质直流固定电容器 Part 2: Blank detail specification: Fixed metallized polyester film D.C. Capacitor
GB 6346 (IEC 60384-11)	第11部分：分规范：金属箔式聚酯膜介质直流固定电容器 Part 11: Sectional specification: Fixed polyester film metal foil D.C. Capacitor
GB 6347 (IEC 60384-11-1)	第11部分：空白详细规范：金属箔式聚酯膜介质直流固定电容器 Part 11: Blank detail specification: Fixed polyester film metal foil D.C. Capacitor
GB 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 metal foil D.C. Capacitor
GB 10189 (IEC 60384-13-1)	第13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 Part 13: Blank detail specification: Fixed polypropylene film metal foil D.C. Capacitor
GB/T 14472 (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 14473 (IEC 60384-14-1)	第14部分：空白详细规范：抑制电源电磁干扰用固定电容器 Part 14: Blank detail specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains
GB 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 D.C. capacitor
GB 10191 (IEC 60384-16-1)	第16部分：空白详细规范：金属化聚丙烯膜介质直流固定电容器 Part 16: Blank detail specification: Fixed metallized polypropylene film D.C. capacitor
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 A.C. and pulse capacitor
GB/T 14580 (IEC 60384-17-1)	第17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 Part 17: Blank detail specification: Fixed metallized polypropylene film A.C. and pulse capacitor
GB 18489 (IEC 60148)	管形荧光灯和其他放电灯线路用电容器 一般要求和安全要求 Capacitor especially used for circuit of Tube—shape fluorescent and other lamps: General & safety requirements
GB 18504 (IEC 60149)	管形荧光灯和其他放电灯线路用电容器性能要求 Capacitor especially used for circuit of Tube—shape fluorescent and other lamps: Performances requirements
GB 3667 (IEC 60252-1)	第1部分：交流电动机电容器 Part 1: AC motor capacitor

# TERMINOLOGIES 一些常用的标准术语

1. 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。  
**Upper Category Temperature:** Capacitor design to determine the highest temperature can work continuously
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。  
**Lower Category Temperature:** Capacitor design determine the lowest temperature can work continuously
3. 额定温度：可以连续施加额定电压的最高环境温度。  
**Rated Temperature** The highest environmental temperature in which capacitor applied
4. 额定电压 ( $U_R$ )：在下限类别温度和额定温度之间的任一温度下，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。  
**Rated Voltage ( $U_R$ )** : In the lower limit of category and rated temperature between any of the temperature, can apply for the biggest dc voltage or pulse voltage on the capacitor peak
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。  
**Category Voltage ( $U_C$ )** : Capacitor in the ceiling category temperature can be continuous on the highest voltage on the capacitor
6. 温度降额电压：温度降额电压是在额定温度和上限类别温度之间的任一温度下，可以连续施加在电容器上的最高电压。  
**Temperature Derated Voltage:** Temperature drop of voltage is between the rated temperature and maximum temperature at any temperature, can apply for the highest voltage on the capacitor
7. 气候类别：电容器所属的气候类别用斜线分隔的三个数来表示 (IEC 60068-1: 如: 55/100/56).  
**Climatic category** Capacitor's climate type with diagonal lines separating the number three (IEC 60068-1:example 55/100/56).  

8. 容量温度系数 ( $\alpha$ )：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/℃)。  
**Temperature coefficient of capacitance( $\alpha$ ):** 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℃  

$$\alpha_i = \frac{C_r - C_o}{C_o(T_r - T_o)}$$
 Ci: 电容器在温度Ti时容量 Co: 电容器在T<sub>o</sub>(20±2)℃时的容量  
 Ci:Capacitance at temperature Ti Co:Capacitance at temperature To(20±2)℃.
9. 绝缘电阻 (I.R.) / 时间常数 (t)：绝缘电阻为电容器充电一分钟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: t[s]=I.R.[MΩ] × C[μF]  
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<sub>r</sub>>0.33 μF) 电容器的绝缘特性。
- Insulation resistance(I.R.)/Time Constant(t):** 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: t[s]=I. R. [MΩ] × C [UF] In general, Insulation resistance is used for Describing smaller capacitance capacitors Insulation character, Time Constant fo Describing larger ones (example:CR>0.33uF)
10. 损耗角正切 (tgδ)：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。  
**Dissipation factor (tgδ):** 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.
11. 自愈性 (仅对金属化)：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是电击穿点临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。  
**Self-healing:** The metal coatings of the metallized film, which are vacuum- deposited directly onto the plastic Channel is sufficient to totally evaporte the thin film, have a thickness of only several tens nm At wesk points or impurities in the didledtric a dielectric breakdown would occur. The energy Released by the arc discharge in the breakdown 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.

# 使用薄膜电容器的注意事项 CAUTION ITEMS IN USING PLASTIC FILM CAPACITORS

## OPERATION VOLTAGE 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。

Before use, please check at the ends of the capacitor voltage waveform, current waveform and frequency (in high frequency, allowing voltage changed by different types of capacitors. Details please refer to the instruction manual) whether within the rating.

## OPERATION CURRENT 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L=Cx 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。额定电流被认定为是由击穿模式决定的脉冲电流（峰值电流，即由dV/dt指示所限制的）和连续电流（以峰峰值或有郊值表示）组成，当使用时，需确认这两个电流都在允许范围之内。

CBB81、CBB81B、CBB81A系列聚丙烯膜高压电容器给出了占空比（DUTY）为15%时的额定峰峰值电流。CBB21、CBB21B、CBB21A系列S校正电容器给了额定峰峰值电流。在一般情况下都不允许超过额定峰峰值电流使用。当实际工作电流波形与给出的波形不同时，一般情况下聚酯膜电容器在自身温升为10℃或更小的情况下使用，聚丙烯膜在自身温升为5℃或更小的情况下使用，电容器表面温度不许超过额定上限温度。

By pulse capacitor (or alternating current is equal to the capacitance C) and the product of the voltage rising rate, namely L = Cx dV/dt. Because capacitor loss, under the condition of high frequency or high pulse when used by pulse capacitor (or alternating current) can make the condenser heat and temperature rise, there will be a risk of thermal breakdown (smoke and fire). Therefore, capacitor safety conditions of use not only restricted by the rated voltage (or category voltage), and restricted by the rated current. Rated current was identified as is determined by breakdown model of pulse current (peak current, the limit by the dV/dt instructions) and continuous current (expressed in fengfeng value or suburb), when using, need to confirm the two currents are within the scope of the permit.

CBB81 are, CBB81B, CBB81A polypropylene film series high voltage capacitor is given DUTY ratio (DUTY) was 15% of the rated current fengfeng values. CBB21, CBB21B, CBB21A series S correction capacitor to the rated value of fengfeng current. In general, are not allowed to exceed rated fengfeng value current use. When actual working current waveform and the waveform is not at the same time, given usually polyester film capacitor in their temperature rise for use under the condition of 10℃ or less and polypropylene film on its temperature rise is 5℃ or less use, under the condition of condenser surface temperature is not allowed to exceed the maximum rated temperature.

## 各种波形的有效值换算关系 CALCULATION OF RMS IN VARIOUS WAVEFORMS

不同的波形有效值按下面的公式计算 In each waveform, calculate the rms value in the following formula.

种类(type)	1	2	3	4	5	6	7	8
波形 (waveform)								
有效值(rms)	$E/\sqrt{2}$	$E/\sqrt{2}$	$E/\sqrt{3}$	$E/\sqrt{3}$	$E/\sqrt{3T}$	$E$	$E/\sqrt{T}$	$\sqrt{\frac{1}{T}(I_1^2 + I_2^2 + I_3^2 + I_4^2)}$

# CAUTION ITEMS 注意事项

使用薄膜电容器的  
IN USING PLASTIC FILM CAPACITORS

## 抑制电源电磁干扰用电容器

### CAPACITOR FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION OF AC POWER SUPPLY

当在电源跨线电路中使用电容器来消除噪音时，不仅仅只有正常电压，还会有异常脉冲电压（如闪电）发生，这可能会导致电容器冒烟或者起火。所以，跨线电容器其安全标准在不同国家有严格规定。请使用经过安全认证的电容器。不允许将直流电容器用作跨线电容器。

When used in the power line circuit capacitor to eliminate noise, it is not only the normal voltage, there will be abnormal pulse voltage, such as lightning, this may lead to capacitor smoke or fire. Line across the capacitor, therefore, its safety standards in different countries have strict rules. Please use after security certification type. Capacitor are not allowed to be used as a capacitor 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（参见下表）

◎ X class power electromagnetic interference suppression with capacitors

Applicable to the capacitor failure does not lead to click on dangerous situations, fall into three categories X1, X2, X3 (see table below)

类别 (Class)	使用时的峰值脉冲电压 KV Peak pulse voltage in service (KY)	应用 Application	耐久性实验前施加的峰值脉冲电压 UP(KV) Peak pulse voltage UP before Endurance test (KY)
X1	>2.5, ≤4.0	高脉冲应用 High pulse Application	$C_R < 1.0 \mu F, 4.0$ $C_R > 1.0 \mu F, 4 / C_R$
X2	≤2.5	一般用途 General purposes	$C_R < 1.0 \mu F, 2.5$ $C_R > 1.0 \mu F, 2.5 / C_R$
X3	≤1.2	一般用途 General purpos	....

◎ 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场合，分为Y1、Y2、Y3、Y4等四个类别（参见下表）

◎ Y class power electromagnetic interference suppression with capacitors

Applicable to the capacitor failure will lead to dangerous situations, click into Y1, Y2, Y3, Y4 four categories (see table below)

类别 (Class)	额定电压 (VAC) Rated Voltage (VAC)	耐久性实验前施加的峰值脉冲电压 UP(KV) Peak pulse voltage UP before Endurance test (KY)
Y1	≤250	8.0
Y2	≥150, ≤250	5.0
Y3	≥150, ≤250	....
Y4	<150	2.5

## 04 CAPACITOR CHARGING AND DISCHARGING 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~1000Ω/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~1000Ω/v或更高的限流电阻。详见电容器标准。

Due to the capacitor charge and discharge flow depends on the product of the capacitance and voltage rising rate, even low voltage to charge and discharge, may also produce large moment of charge and discharge current, which can cause damage to the performance of capacitor, such as short circuit or open circuit. When charge, please series a 20 Ω ~ 1000 Ω/v/v or higher current limiting resistor, will charge and discharge current limit within the prescribed scope.

When more than one film capacitor in parallel to withstand voltage test and life test, please for each capacitor in series a 20 Ω ~ 1000 Ω/v/v or higher current limiting resistor. See the capacitor for standard.

# 使用薄膜电容器的注意事项 CAUTION ITEMS

IN USING PLASTIC FILM CAPACITORS

## IFLAME RETARDANT 阻燃性

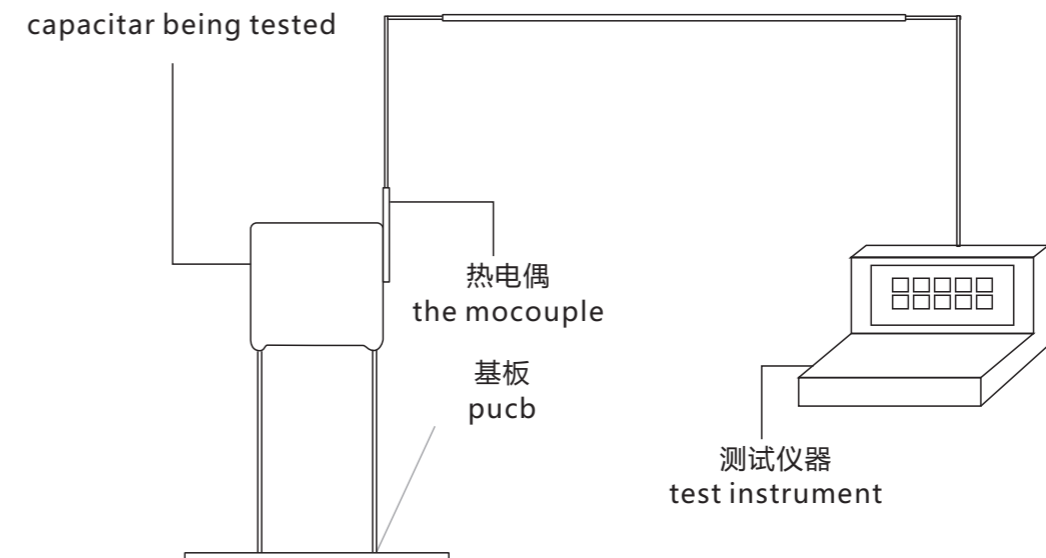
尽管在薄膜电容器外封装中使用了耐火性阻燃材料--阻燃环氧树脂或塑壳，但外部的持续高温或火焰仍可使电容器芯子变形而产生外封装破裂，导致电容器芯子熔化或燃烧。

Although outside the film capacitor encapsulation used in flame-retardant materials - fire resistance and flame retardant epoxy resin or plastic shell, but outside of the continuous high temperature or flame can still be outside the core deformation produced by the capacitor encapsulation is broken, and led to the condenser core melting or burning.

## ISURFACE TEMPERATURE RISE 表面温升

当电容器用于交流及脉冲场合时，流经电容器的电流使其发热，如果发热量过大，会导致电容器短路甚至燃烧。所以流经电容器的电流不能超过产品目录所规定的最大数值及电容器在加载时监测温升就显得尤为必要。

When the capacitor is used in communication and pulse occasions, flowing through the capacitor current makes the fever, if calorific value, even burning can lead to a capacitor circuit. So the current flowing through the capacitor cannot exceed the maximum value stipulated in the product catalog and capacitor when load monitoring temperature rise is particularly necessary.



测量电容器表面温升的方法如图1，被测电容器必须施加工作交流、脉冲电压及工作频率。

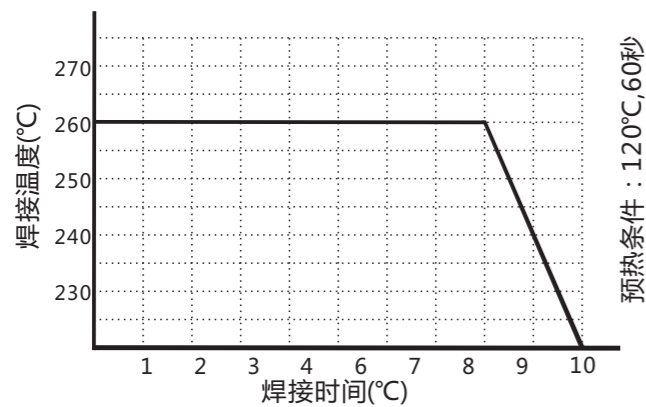
Measurement method of the condenser surface temperature rise as shown in figure 1, the tested capacitor must exert work exchange, pulse voltage and working frequency.

# HOW TO ORDER 订购须知

Before the order or ask for samples, please provide the following letter as much as possible since the interest rates: 在订购或索要样品之前, 请尽可能多地提供以下信息:

1. 额定工作电压: DC, AC  
The rated working voltage: DC, AC
2. 电容量及电容量允许偏差: F, A, G, H, J, K, M  
Capacitance and the capacitance of allowable deviation: F, A, G, H, J, K, M
3. 最终产品种类: 彩色电视机, 显示器, 开关电源, 电子节能灯等等  
The final product categories: color TV, display, switching power supply, electronic energy-saving lamps and so on
4. 用途或电路图: 直流回路, 交流脉冲回路 (S校正电路, 行逆程电路, 尖峰吸收回路), 电源跨线噪声抑制电路、高稳定性电路等等  
Use or circuit: dc circuit, ac pulse circuits (S correcting circuit, line flyback circuit, peak absorption circuit), powerline noise suppression circuit, high stability and so on
5. 使用条件: 脉冲峰值, 频率, 波形, 电流等等  
Conditions of use: pulse peak, frequency, waveform, current and so on
6. 使用温度 The use of temperature
7. 外形尺寸: 电容器本体尺寸, 引出线尺寸等等  
The overall dimensions: capacitor body size, lead wire size and so on
8. 形状: 封装形式 (浸渍型、盒式等), 引出线 (直脚、成型、编带等等)  
Shape: coating forms (dipping, cassette, etc.), lead (straight foot, molding, Braid, etc.)
9. 安全性: 当电容器短路或开路时对其他部件影响, 当其它部件或电路工作异常时对电容器的影响。  
Security: when the capacitor is short circuit or open circuit impact on other parts, when other components or circuit work abnormal effect on the capacitor.
10. 焊接 Welding joint  
焊接电容器时, 热量会对电容器的引线和封装层产生影响, 并且高温以及长时间的焊接都会对电容器的性能造成影响, 所以必须注意合适的焊接参数。  
When the welding capacitor, heat will affect capacitor lead and coating layer, and the welding of high temperature and long time will affect the performance of the condenser, so must pay attention to the proper welding parameters  
以下给出推荐使用的焊接时间/焊接温度组合关系。  
Here is recommended to use welding time/temperature combination relations.

## (1) 波峰焊 Wave soldering



## (2) 电烙铁焊接 Electric welding

烙铁尖端温度需低于 $390 \pm 30^\circ\text{C}$ , 焊接时间在3秒以内。  
Soldering iron tip temperature should be lower than  $390 + 30^\circ\text{C}$ , welding time within 3 seconds.

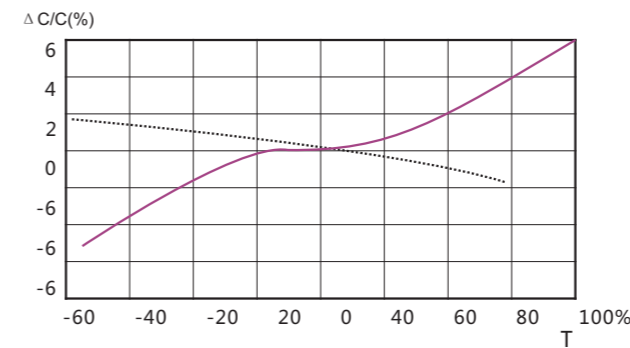
## 11. 运输及存储 Transportation and storage

- (1) 包装完好的电容器允许以任何方式运输, 但应绝对避免淋雨、腐蚀或外力压伤。  
packing sound capacitor allows transport in any way, but should absolutely avoid get wet in the rain, corrosion, or external forces crushed.
- (2) 电容器应保存在 $-10 \sim +40^\circ\text{C}$ 温度下, 相对湿度75%以下, 应避免温度剧烈变化, 阳光直射和腐蚀性气体, 存放期超过1年以上的电容器, 使用前应检查电气性能和可焊性。  
Capacitors should be stored in  $-10 \sim +40^\circ\text{C}$  temperature, relative humidity below 75%, should avoid rapid changes in temperature, direct sunlight and corrosive gas, storage period more than 1 year of capacitor, before the use should check electrical performance and weldability.

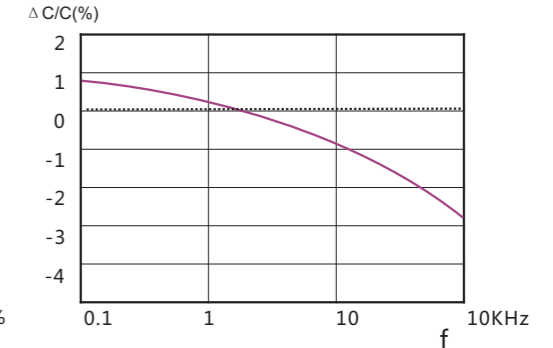
# HOW TO ORDER 订购须知

Before the order or ask for samples, please provide the following letter as much as possible since the interest rates: 在订购或索要样品之前, 请尽可能多地提供以下信息:

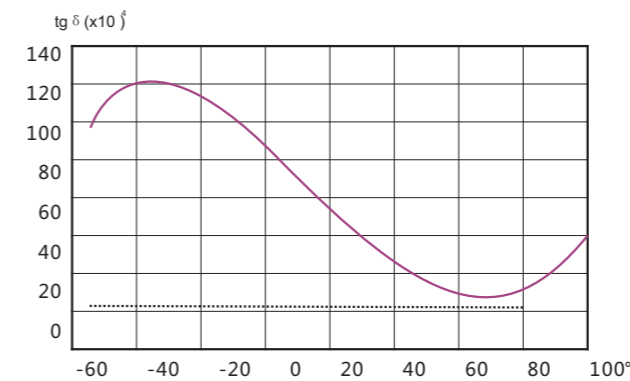
## 12. 典型的电容器特性曲线



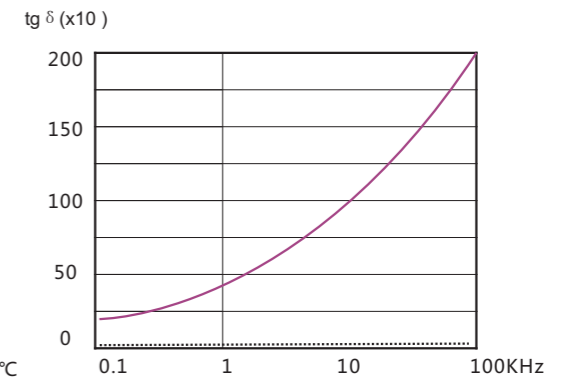
电容量与温度曲线图 (1KHz)  
Capacitance vs. Temperature at 1KHz



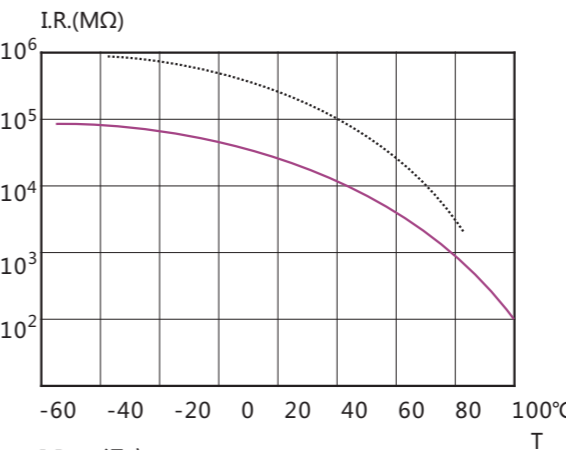
电容量与频率曲线图(在室内环境下)  
Capacitance vs. Frequency (room temperature)



损耗角与温度曲线图(1KHz)  
Dissipation factor vs. Temperature at 1KHz

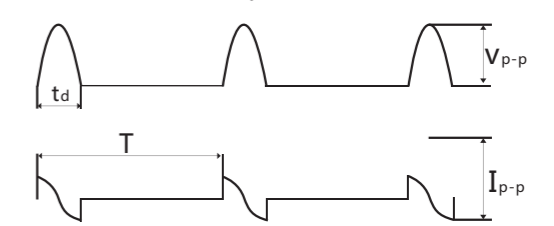


损耗角与频率曲线图 (室温环境下)  
Dissipation factor Frequency (Room temperature)



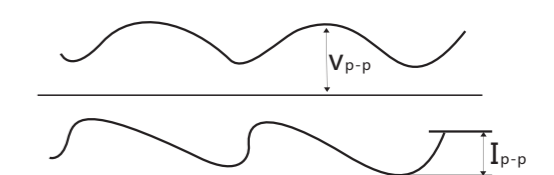
I.R. vs. 温度  
I.R. vs. temperature

## 行逆程波形示意图: Flyback waveform



占空比:  $DUTY = t_d / T$

## S-校正波形示意图: S-correction waveform



..... 聚丙烯薄膜(Polypropylene Film)  
—— 聚酯薄膜(Polyester Film)

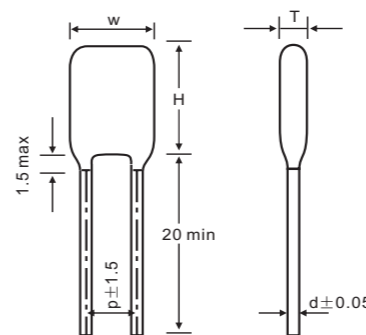
# SF'S CONVENTIONAL CAPACITOR

## 常规电容

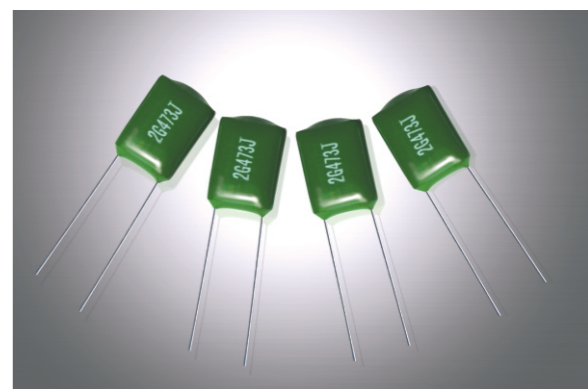


### (C11/PEI) 金属箔式聚酯膜电容器

## POLYESTER FILM METAL FOIL CAPACITOR C11



外形图 Outline Drawing



### FEATURES 特点

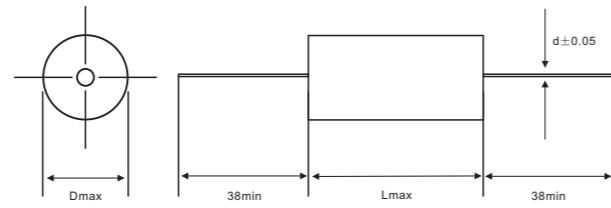
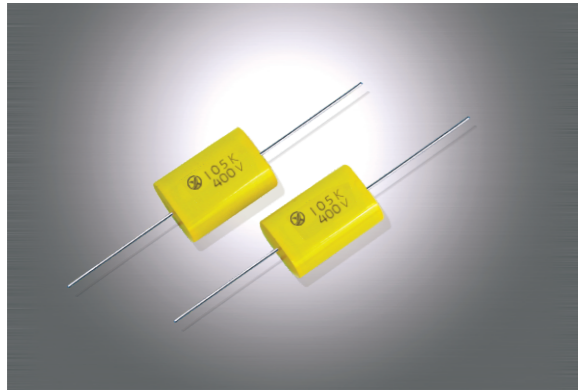
- ◎体积小, 重量轻, 价格低
- ◎引线直接点焊于电极, 损耗小
- ◎稳定性好, 可靠性高
- ◎环氧树脂真空包装, 提高产品的机械强度和耐湿度
- ◎广泛用于电视机、收录机及各种电子仪器的直流、脉动电路中
- ◎Small size, light weight and low cost
- ◎Dissipation factor is small because the leads are directly welded to electrodes
- ◎High stability and reliability
- ◎Epoxy resin vacuum-dipped enhances the mechanical strength and humidity resistance
- ◎Widely used in DC and pulsating circuits of radio, TV sets and various electronic equipments.

### TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB6346 (IEC 60384-11)
气候类别	Climatic Category	55/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-55°C~105°C(+85°C to +105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC))
额定电压	Rated Voltage	50V、63/100V、160/250V、400V、630V、1000/1200V
电容量范围	Capacitance Range	0.0010uF~0.47uF
电容偏差	Capacitance Tolerance	±5% (J), ±10% (K), ±20% (M)
耐电压	Voltage Proof	2.0U <sub>R</sub> (5S)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 30 000MΩ, CR ≤ 0.1uF (20°C, 100V, 1min)
		≥ 10 000 MΩ, CR > 0.1uF



# C20 (CL20/MET/MEA) 金属化聚脂膜轴向电容器 METALLIZED POLYESTER FILM CAPACITOR-AXIAL



外形图 Outline Drawing

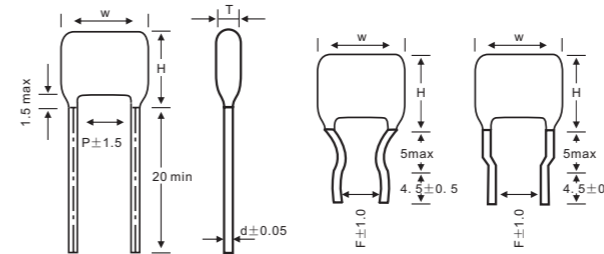
## FEATURES 特点

- ◎体积小，重量轻，自愈性能优异
- ◎外包装聚酯胶带纸，两端灌注环氧树脂
- ◎Small volume, light weight, excellent self-healing
- ◎On both ends of the outer packing polyester adhesive paper, perfusion epoxy resin

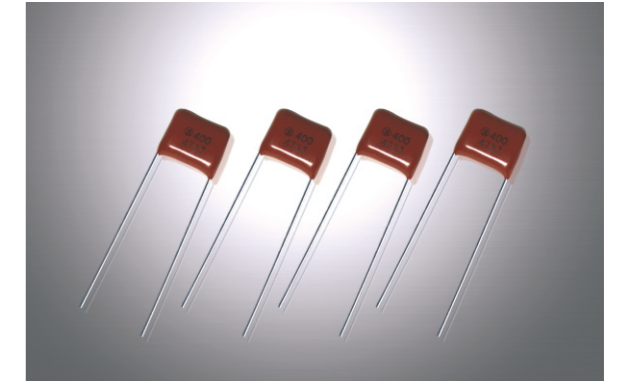
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 7332 (IEC 60384-2)
气候类别	Climatic Category	40/085/21
额定温度	Rated Temperature	85°C
额定电压	Rated Voltage	100V、250V、400V、630V、1000V
电容量范围	Capacitance Range	0.0010uF-50.0uF
电容偏差	Capacitance Tolerance	±5% (J), ±10% (K), ±20% (M)
耐电压	Voltage Proof	1.6U <sub>R</sub> (5S)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 7500MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 1min)
		≥ 2500s MΩ, C <sub>R</sub> > 0.33uF (20°C, 1min)

# (CL21/MEF) C21 金属化聚脂膜电容器 METALLIZED POLYESTER FILM CAPACITOR



外形图 Outline Drawing



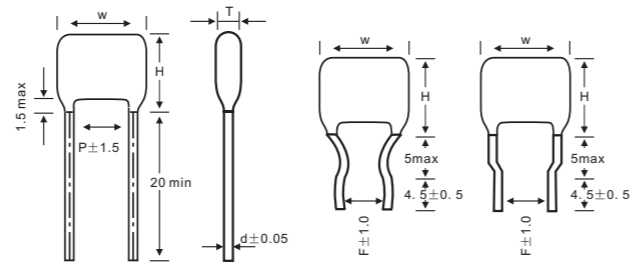
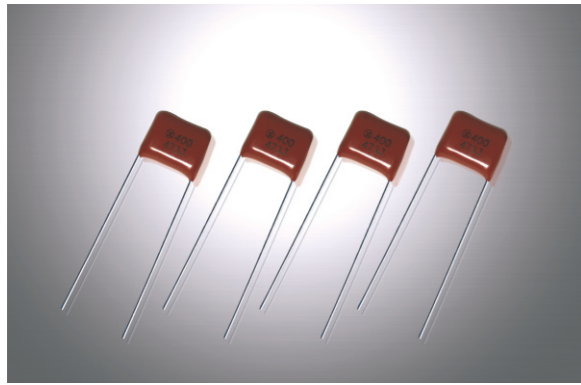
## FEATURES 特点

- ◎容量范围宽，体积小，重量轻
- ◎自愈性好，寿命长
- ◎阻燃性环氧粉末包封，安全性好、外观一致性好
- ◎适用于直流和VHF级信号的隔直流、旁路和耦合
- ◎广泛用于滤波、低脉冲电路
- ◎The capacity of a wide range, small size, light weight
- ◎Good self-healing, long service life
- ◎Flame retardant epoxy powder coating, good safety, good consistency
- ◎Apply to dc and signals to VHF range.widely blocking, by-pass and coupling
- ◎Widely used in filtering and low pulse circuits

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 7332 (IEC 60384-2)
气候类别	Climatic Category	55/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-55°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	50/63/100V、250V、400V、630V
电容量范围	Capacitance Range	0.010uf~10.0uf
电容偏差	Capacitance Tolerance	±5% (J)、±10% (K) X
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 7500MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 10V, 1min)
		≥ 2500sMΩ, C <sub>R</sub> > 0.33uF (20°C, 10V, 1min)

# C42 (CH21) 金属化复合膜电容器 METALLIC COMPOSITE FILM CAPACITORS



外形图 Outline Drawing

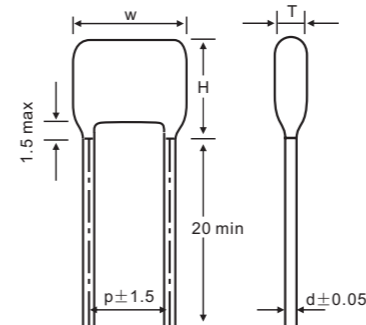
## FEATURES 特点

- ◎容量范围宽，体积小，重量轻
- ◎高频损耗小。自愈性好，寿命长，绝缘电阻高，电容量稳定性好。
- ◎阻燃性环氧粉末包封，安全性好、外观一致性
- ◎广泛用于定时、振荡、滤波、高脉冲电路
- ◎The capacity of a wide range, small size, light weight
- ◎Small loss at high frequency.Good self-healing, long life, high insulation resistance, good capacitance stability.
- ◎Flame retardant epoxy powder coating, good safety, the identical outer appearance
- ◎Widely used in timing, oscillation, filtering and high pulse circuit

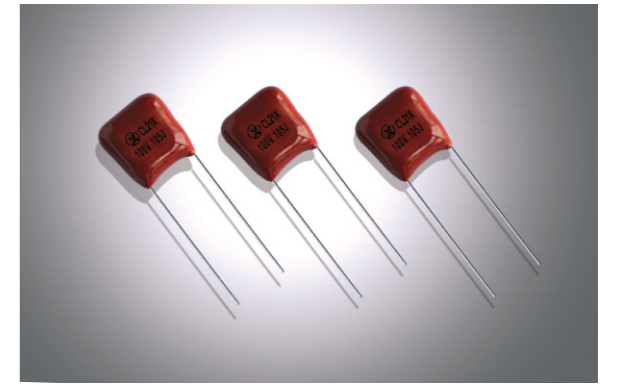
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 7332 (IEC 60384-2)
气候类别	Climatic Category	55/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-55°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	50/63/100V、250V、400V、630V
电容量范围	Capacitance Range	0.010uf~10.0uf
电容偏差	Capacitance Tolerance	±5% (J)、±10% (K) X
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 3750MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 10V, 1min)
		≥ 1250sMΩ, C <sub>R</sub> > 0.33uF (20°C, 10V, 1min)

# (CL21X/MEFmini) C22 超小型金属化聚脂膜电容器 SUBMINIATURE METALLIZED POLYESTER FILM CAPACITOR



外形图 Outline Drawing



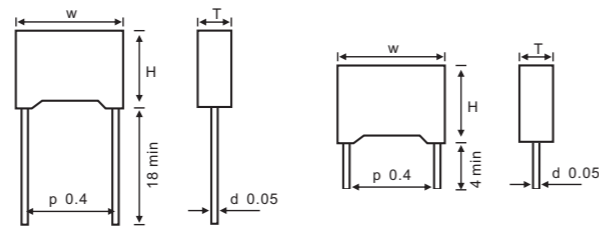
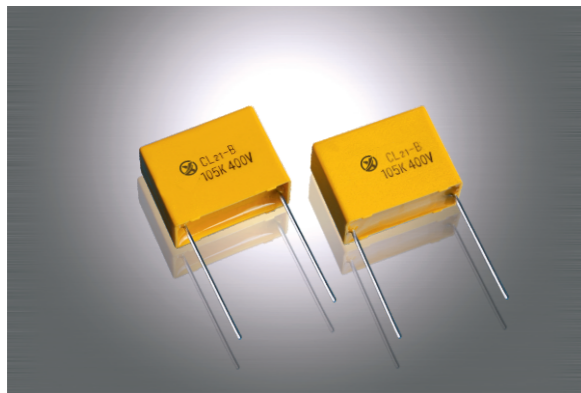
## FEATURES 特点

- ◎体积小 ◎自愈性好，可靠性高
- ◎阻燃性环氧粉末包封，安全性好、外观一致性好
- ◎损耗小
- ◎可全系列径向编带
- ◎Small volume ◎Good self-healing effect, high reliability
- ◎Flame retardant epoxy powder coating, good safety, good consistency
- ◎Low loss
- ◎All series of radial braid

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 7332 (IEC 60384-2)
气候类别	Climatic Category	55/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-55°C~105°C+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100V、250V、400V、630V
电容量范围	Capacitance Range	0.0010uf~1.5uf
电容偏差	Capacitance Tolerance	±5% (J)、±10% (K)
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 3750MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 10V, 1min)
		≥ 1250S, C <sub>R</sub> > 0.33uF (20°C, 10V, 1min)

# C23 (CJ21-B/MEB) 塑壳金属化聚脂膜电容器 BOX-TYPE METALLIZED POLYESTER FILM CAPACITOR



外形图 Outline Drawing

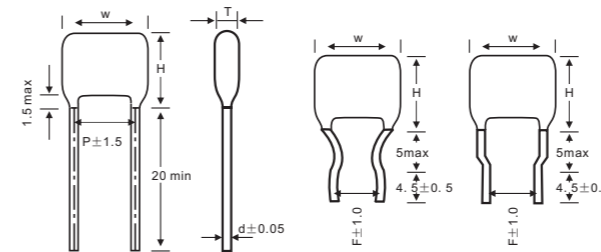
## FEATURES 特点

- ◎自愈性好，可靠性高
- ◎塑料外壳包装，安全性好、外观一致性好
- ◎损耗小
- ◎可全系列径向编带
- ◎Good self-healing effect, high reliability
- ◎Plastic shell packaging, security is good, look good consistency
- ◎Low loss
- ◎All series of radial braid

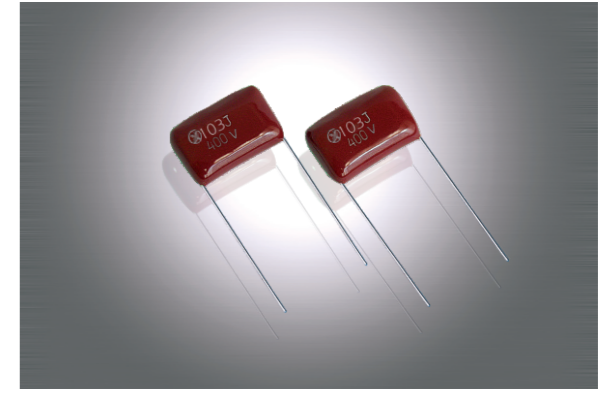
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 7332 (IEC 60384-2)
气候类别	Climatic Category	55/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-55°C~105°C+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100V、250V、400V、630V
电容量范围	Capacitance Range	0.0010uf~3.0uf
电容偏差	Capacitance Tolerance	±5% (J)、±10% (K)
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 1.0% (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 3750MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 10V, 1min)
		≥ 1250S, C <sub>R</sub> > 0.33uF (20°C, 10V, 1min)

# C13 (CBB13/PPN) 箔式聚丙烯膜电容器 POLYPROPYLENE FILM METAL FOIL CAPACITOR



外形图 Outline Drawing



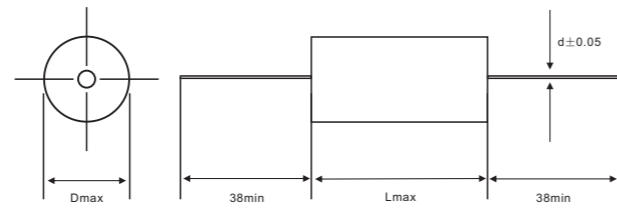
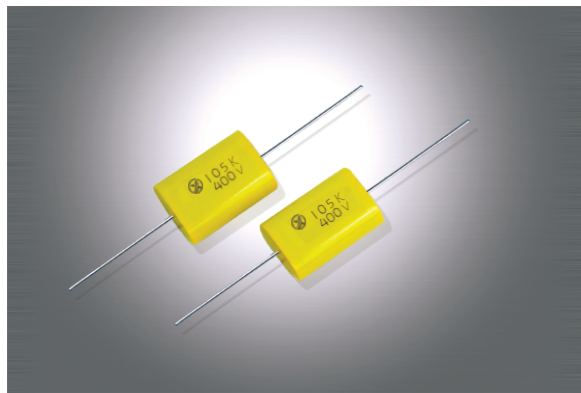
## FEATURES 特点

- ◎优异的频率和温度特性
- ◎即使在高频下、损耗也极小
- ◎广泛用于高频、直流和脉冲电路中
- ◎Excellent frequency and temperature characteristics
- ◎Even under the high frequency, loss is minimal
- ◎Widely used in high frequency, dc and pulse circuits

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB/10188 (IEC 60384-13)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100V,160V,200V,250V,400V,630V,800V,1000V,1200V
电容量范围	Capacitance Range	0.0010uf~0.10uf
电容偏差	Capacitance Tolerance	±2%(±5% (J), ±10% (K)
耐电压	Voltage Proof	2.0U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 10×10 <sup>-4</sup> (1KHz,20°C)
绝缘电阻	Insulation Resistance	≥ 30000MΩ,CR ≤ 0.1uF (20°C,1min)
		≥ 5 000s,CR>0.1uF (20°C,1min)

# C30 [CBB20/MPT/MPA] 金属化聚丙烯膜轴向电容器 METALLIZED POLYPROPYLENE FILM CAPACITOR-AXIAL



外形图 Outline Drawing

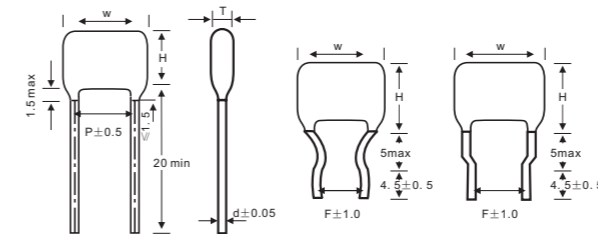
## FEATURES 特点

- ◎体积小,重量轻,自愈性能优异
- ◎外包聚酯胶带纸,两端灌注环氧树脂
- ◎Small size,light weight,excellent self-healing property
- ◎Wrapped with polyester adhesive tape and ends filled with epoxy resin

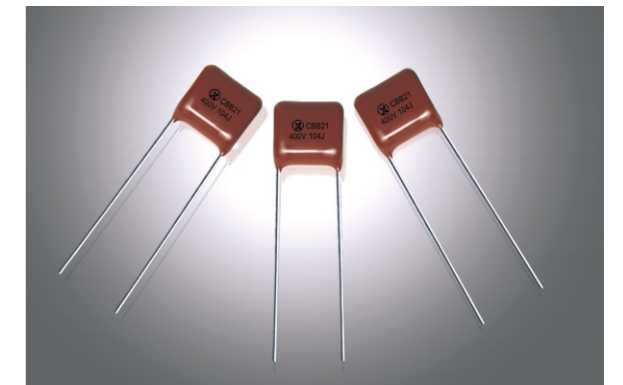
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 10190(IEC 60384-16)
气候类别	Climatic Category	40/085/21
额定温度	Rated Temperature	85°C
额定电压	Rated Voltage	100V、250V、400V、630V
电容量范围	Capacitance Range	0.010uf~10.0uf
电容偏差	Capacitance Tolerance	±5% (J)、±10% (K)
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 10x10 <sup>-4</sup> (20°C, 1kHz)
绝缘电阻	Insulation Resistance	≥ 15000MΩ, C <sub>R</sub> ≤ 0.33uF (20°C, 10V, 1min)
		≥ 5000S, C <sub>R</sub> > 0.33uF (20°C, 10V, 1min)

# [CBB21/MPP] 金属化聚丙烯膜电容器 METALLIZED POLYPROPYLENE FILM CAPACITOR C31



外形图 Outline Drawing



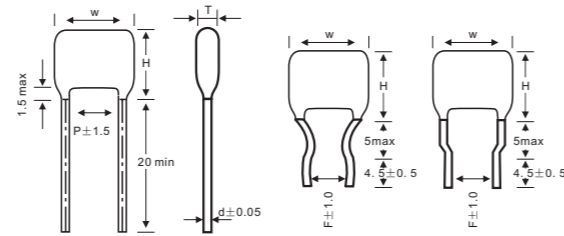
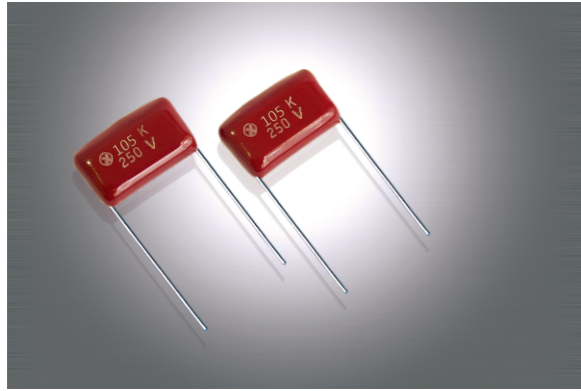
## FEATURES 特点

- ◎专为大屏幕显示器及彩电的S校正电路设计
- ◎内部温升极小
- ◎耐高温、特大电流
- ◎阻燃环氧粉末包封 (UL94/V-0)
- ◎Designed for large screen display and color TV S correction circuit design
- ◎Small inherent temperature rise
- ◎High temperature resistant, heavy current
- ◎Flame retardant epoxy powder coating (UL94 / V - 0)

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB10190 (IEC 60384-16)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100v、400v、250v、400v、630v、1000v
电容量范围	Capacitance Range	0.10uF~10uF
电容偏差	Capacitance Tolerance	±5% (J) , ±10% (K)
耐电压	Voltage Proof	1.6U <sub>R</sub>
损耗角正切	Dissipation Factor	≤ 10×10 <sup>-4</sup> (1KHz,20°C)
绝缘电阻	Insulation Resistance	≥ 30000MΩ, CR ≤ 0.33uF (20°C,100V,1min)
		≥ 7500s, CR>0.33uF

# C32 [CBB22/MPP] 金属化聚丙烯膜电容器 METALLIZED POLYPROPYLENE FILM CAPACITOR



外形图 Outline Drawing

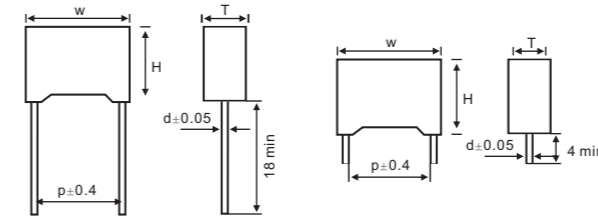
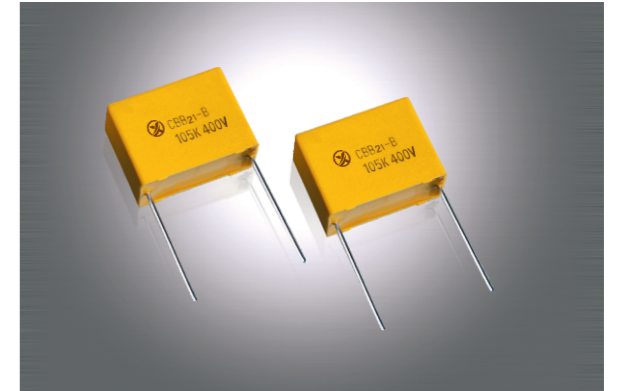
## FEATURES 特点

- ◎体积小，可靠性高
- ◎能承受过压冲击
- ◎阻燃环氧粉末包封 (UL94/V-0)
- ◎Small volume, high reliability
- ◎Can withstand over voltage
- ◎Flame retardant epoxy powder coating (UL94 / V - 0)

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB/10190 (IEC 60384-16)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100V、250V、400V、630V、1000V、1200V
电容量范围	Capacitance Range	0.10uF~10uF
电容偏差	Capacitance Tolerance	±2%(±5% (J), ±10% (K)
耐电压	Voltage Proof	1.6U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 10×10 <sup>-4</sup> (1KHz)
绝缘电阻	Insulation Resistance	≥ 30000MΩ, CR ≤ 0.33uF (20°C,1min) ≥ 7500S, CR > 0.33uF (20°C 1min)

# [CBB21-B/MPB] 塑壳金属化聚丙烯膜电容器 C36 BOX-TYPE DOUBLE SIDED METALLIZED POLYPROPYLENE FILM CAPACITOR



外形图 Outline Drawing

## FEATURES 特点

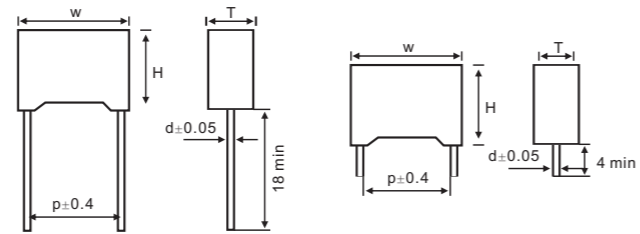
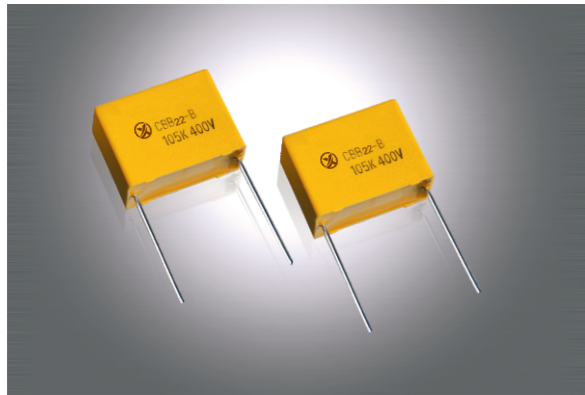
- ◎塑壳封装，防潮、可靠性高
- ◎能承受过压冲击
- ◎优异的阻燃性能
- ◎Molded case packaging, moisture-proof, high reliability
- ◎Can withstand over voltage
- ◎Excellent flame retardant properties

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB10190 (IEC 60384-16)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	100V,250V,400V,630V,1000V
电容量范围	Capacitance Range	0.0022uF~10uF
电容偏差	Capacitance Tolerance	±2%(G), ±3%(H), ±5%(J), ±10% (K), ±20% (M)
耐电压	Voltage Proof	1.60U <sub>R</sub> (5S)
损耗角正切	Dissipation Factor	≤ 10×10 <sup>-4</sup> (1KHz)
绝缘电阻	Insulation Resistance	≥ 30 000MΩ, CR ≤ 0.33uF (20°C,1min) ≥ 7500s, CR > 0.33uF

# C82 [CBB22-B/MPB]

塑壳双面金属化聚丙烯膜电容器  
BOX-TYPE DOUBLE SIDED METALLIZED POLYPROPYLENE FILM CAPACITOR



外形图 Outline Drawing

## FEATURES 特点

- ◎双面金属化结构，广泛应用于高压高频脉冲电路中
- ◎损耗小，内部温升小 ◎负电容量温度系数 ◎优异的阻燃性能
- ◎Double metallic structure, which are widely used in high pressure small loss at high frequency pulse circuits, small ◎inherent temperature rise
- ◎Negative temperature coefficient of capacity
- ◎Excellent flame retardant properties

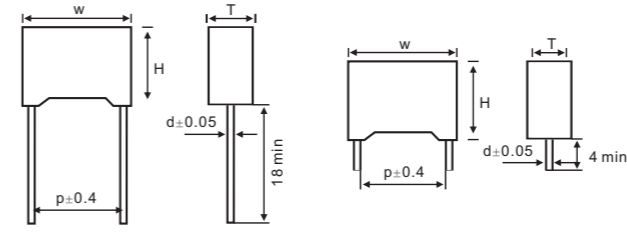
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 14579 (IEC 60384-17)
气候类别	Climatic Category	40/100/56
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	250V,400V,630V,1000V,1400/1600V,2000V
电容量范围	Capacitance Range	0.00022uF~10uF
电容偏差	Capacitance Tolerance	±2%(G),±3%(H),±5%(J),±10%(K),±20%(M)
耐电压	Voltage Proof	1.60U <sub>R</sub> (5s)
损耗角正切	Dissipation Factor	≤ 0.0010, (1kHz, 20°C)
绝缘电阻	Insulation Resistance	> 30 000MΩ, CR < 0.33uF (20°C, 1min)
		> 7500S, CR > 0.33uF (20°C, 1min)

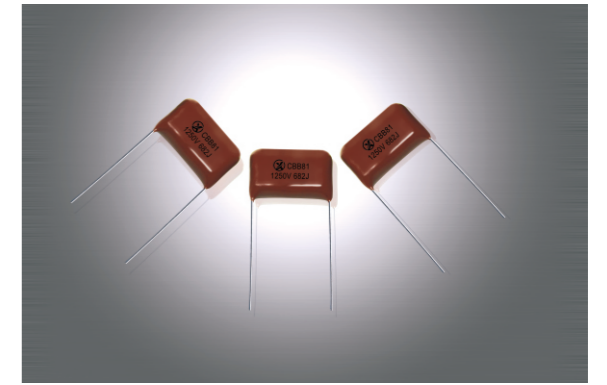
# [CBB81/PPS]

高压金属箔式聚丙烯膜电容器  
HIGH VOLTAGE METALLIZED POLYPROPYLENE FILM METAL FOIL CAPACITOR

# C81



外形图 Outline Drawing



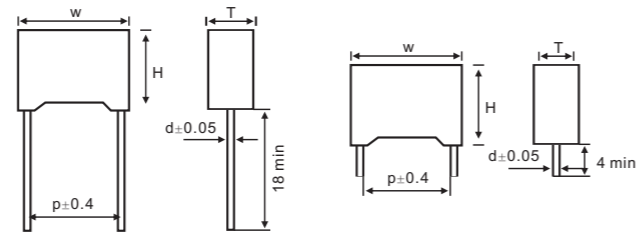
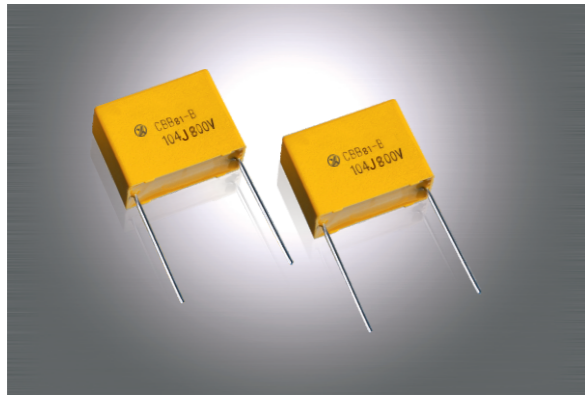
## FEATURES 特点

- ◎高频高压,大电流 ◎损耗小，内部温升小 ◎负电容量温度系数
- ◎阻燃环氧粉末包封(UL94/V-0)
- ◎High frequency high voltage, large current ◎Low loss, small inherent temperature rise
- ◎Negative temperature coefficient of capacity
- ◎Flame retardant epoxy powder coating (UL94 / V - 0)

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB/T14579 (IEC 60384-17)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	800V(7000Vo-p max)
		1 000/1 200V (1 000Vo-p max)
		1 600/2 000V (1 400Vo-p max)
电容量范围	Capacitance Range	0.0010uF~0.47uF
电容偏差	Capacitance Tolerance	±3%(H),±5%(J),±10%(K)
耐电压	Voltage Proof	1.75UR(5s)
损耗角正切	Dissipation Factor	≤ 10×10 <sup>-4</sup> (1KHz,20°C)
		≤ 20×10 <sup>-4</sup> (10KHz,20°C)
绝缘电阻	Insulation Resistance	> 30000MΩ,(20°C,100V,1min)

# C84 [CBB81-B/PPS] 塑壳高压金属箔式聚丙烯膜电容器 BOX-TYPE HIGH VOLTAGE METALLIZED POLYPROPYLENE FILM METAL FOIL CAPACITOR



外形图 Outline Drawing

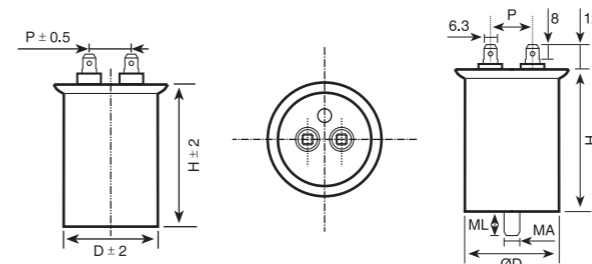
## FEATURES 特点

- ◎高频高压，大电流
- ◎损耗小，内部温升小
- ◎塑壳封装、一致性好、防潮。
- ◎High frequency high voltage, large current
- ◎Low loss, small inherent temperature rise
- ◎Molded case packaging, good consistency, moisture.

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB/T14579 (IEC 60384-17)
气候类别	Climatic Category	40/100/21
额定温度	Rated Temperature	85°C
工作温度范围	Operating Temperature Range	-40°C~105°C(+85°Cto+105°C:decreasing factor 1.25% per°C for V <sub>R</sub> (DC)
额定电压	Rated Voltage	800V(7000Vo-p max)
		1 000/1 200V (1 000Vo-p max)
		1 600/2 000V (1 400Vo-p max)
电容量范围	Capacitance Range	0.0010uF~0.47uF
电容偏差	Capacitance Tolerance	±3%(H),±5%(J),±10%(K)
耐电压	Voltage Proof	1.75UR(5s)
损耗角正切	Dissipation Factor	≤10×10 <sup>-4</sup> (1KHz,20°C)
		≤20×10 <sup>-4</sup> (10KHz,20°C)
绝缘电阻	Insulation Resistance	>30000MΩ, (20°C,1min)

# [CBB60] 金属化聚丙烯膜交流电动机用电容器 METALLIZED POLYPROPYLENE FILM AC MOTOR CAPACITOR C60



外形图 Outline Drawing



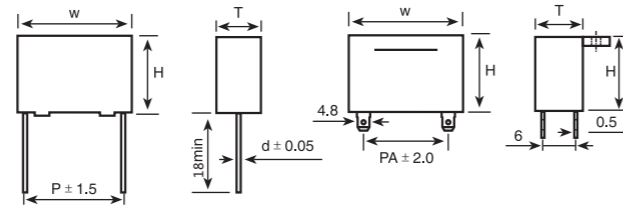
## FEATURES 特点

- ◎塑料外壳封装，外观一致性好
- ◎高频损耗小，适用于较大电流
- ◎绝缘电阻高，自愈性好，寿命长
- ◎适用于频率为50Hz(60Hz)的交流电源供电的单相电动机的起动和运转
- ◎Box-type, good consistency
- ◎Small loss at high frequency, suitable for large currents
- ◎High insulation resistance, good self-healing, long service life
- ◎Applicable to the frequency of 50 hz (60 hz) of the ac power supply starting and running of the single phase motor

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 3667-1997(IEC 252)	
气候类别	Climatic Category	40/85/21	
额定电压	Rated Voltage	250VAC~500VAC	
电容量范围	Capacitance Range	8~100uf	
电容偏差	Capacitance Tolerance	±5%(J)、±10%(K)、±20%(M)	
耐电压	Voltage Proof	引出端之间 Between Terminals	1.6UR(5s)
		引出端与外壳之间 Terminals to case	2000VAC
损耗角正切	Dissipation Factor	≤0.4%(20°C, 1KHz)	
绝缘电阻	Insulation Resistance	>4000S	(20°C, 1min)

# C61 (CBB61) 塑壳高压金属化聚丙烯膜电容器 METALLIZED POLYPROPYLENE FILM AC CAPACITOR (BOX-TYPE)



外形图 Outline Drawing

## FEATURES 特点

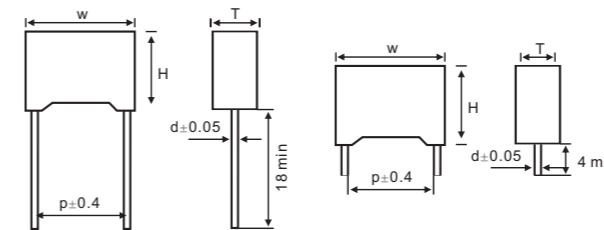
- ◎塑料外壳封装，外观一致性好
- ◎高频损耗小，适用于较大电流
- ◎绝缘电阻高，自愈性好，寿命长
- ◎适用于频率为50Hz(60Hz)的交流电源供电的单相电动机的起动和运转
- ◎Box-type, good consistency
- ◎Small loss at high frequency, suitable for large currents
- ◎High insulation resistance, good self-healing, long service life
- ◎Applicable to the frequency of 50 hz (60 hz) of the ac power supply starting and running of the single phase motor

## TECHNICAL SPECIFICATIONS 技术要求

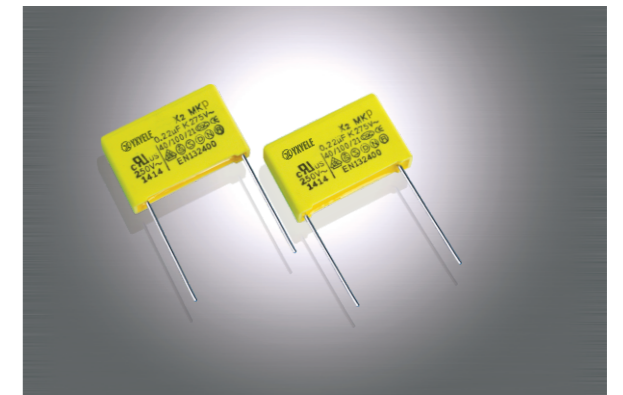
引用标准	Reference standard	GB 3667-1997(IEC 252)	
气候类别	Climatic Category	40/85/21	
额定电压	Rated Voltage	250VAC~500VAC	
电容量范围	Capacitance Range	0.1~20uf	
电容偏差	Capacitance Tolerance	±5%(J)、±10%(K)、±20%(M)	
耐电压	Voltage Proof	引出端之间 Between Terminals	1.6UR(5s)
		引出端与外壳之间 Terminals to case	2000VAC
损耗角正切	Dissipation Factor	≤0.4%(20°C,1KHz)	
绝缘电阻	Insulation Resistance	>4000S	(20°C,1min)

# (X2-MKP) C62 抑制电源电磁干扰金属化聚丙烯膜电容器 METALLIZED POLYPROPYLENE FILM CAPACITOR FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION AND CONNECTION TO THE SUPPLY MAINS

抑制电源电磁干扰金属化聚丙烯膜电容器  
METALLIZED POLYPROPYLENE FILM CAPACITOR FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION AND CONNECTION TO THE SUPPLY MAINS



外形图 Outline Drawing



## FEATURES 特点

- ◎塑料外壳封装，外观一致性好
- ◎能承受过压冲击
- ◎优异的阻燃性能
- ◎适用于电源跨线路等抗干扰场合
- ◎Box-type, good consistency
- ◎Can withstand over voltage
- ◎Excellent flame retardant properties
- ◎Apply to power across the circuit anti-interference and occasions

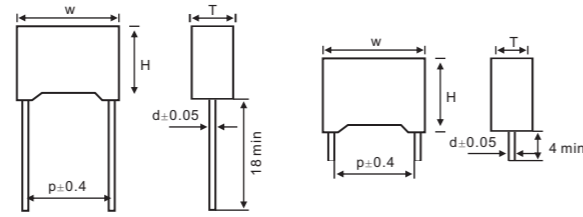
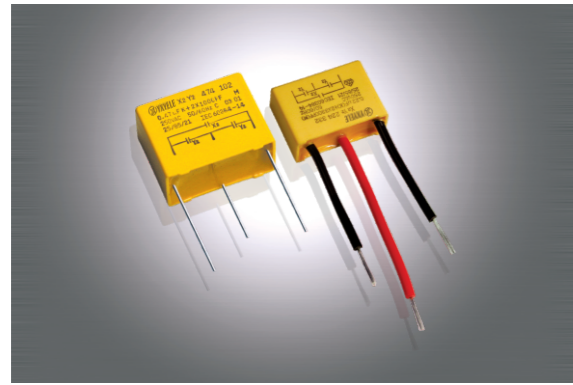
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB /T14472-1998(IEC 60384-14)	
气候类别	Climatic Category	40/105/21	
额定电压	Rated Voltage	280VAC/300VAC/310VAC/330VAC	
电容量范围	Capacitance Range	0.0022~6.8uf	
电容偏差	Capacitance Tolerance	±5%(J)、±10%(K)、±20%(M)	
耐电压	Voltage Proof	4.3UR (5s)	
损耗角正切	Dissipation Factor	≤0.20%(CR≤1uF) ≤0.3%(CR>1uF) (20°C,10KHz)	
绝缘电阻	Insulation Resistance	≥30 000MΩ, CR≤0.33uF	(20°C,100V,1min)
		>5000s, CR>0.33uF	



# C63 (X2Y2)

塑壳高压金属箔式聚丙烯膜电容器  
BOX-TYPE CAPACITOR METALLIZED FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION AND CONNECTION TO THE SUPPLY MAINS (COMBINATION)



外形图 Outline Drawing

## FEATURES 特点

- ◎由两只Y型电容器串联后再与一只X型电容器并联组成
- ◎具有优良的抗干扰能力
- ◎一体化的合理设计，便于安装，提高可靠性
- ◎适用于电动工具，家用电器，开关电源等高要求电器
- ◎From two Y type capacitor in series with a X again after capacitors in parallel
- ◎It has excellent anti-interference ability
- ◎Integration of reasonable design, easy to install, and improve the reliability
- ◎Apply to electric tools, household appliances, electrical switch power supply high requirements

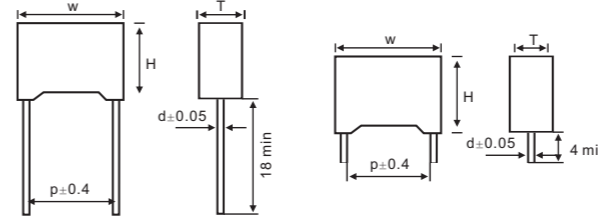
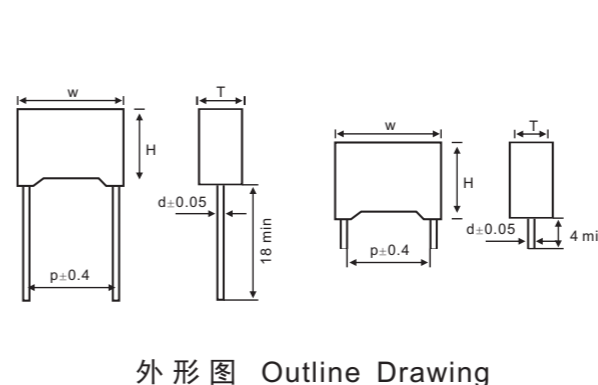
## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	IEC60384-14
气候类别	Climatic Category	40/100/21
额定电压	Rated Voltage	250VAC
电容量范围	Capacitance Range	X2(0.1uF~0.47uF) Y2(1000PF~4700PF)
电容偏差	Capacitance Tolerance	±10%(K)、±20%(M)
耐电压	Voltage Proof	X2(1800VDC) Y2(2000VAC~2700VDC)
损耗角正切	Dissipation Factor	≤ 0.1%(20°C,1KHz)
绝缘电阻	Insulation Resistance	> 30000MΩ, (20°C,1min)

# (R,C COMBINATION)

由一只电容与电阻串联组成，用环氧树脂（或塑壳）封装  
CONSISTS OF A CAPACITOR AND RESISTOR IN SERIES WITH EPOXY RESIN ENCAPSULATION (OR MOLDED CASE)

# C64



外形图 Outline Drawing

## FEATURES 特点

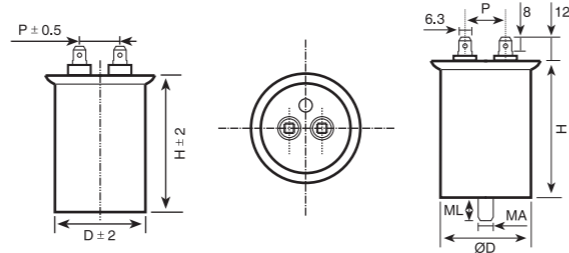
- ◎组成谐振电路，有效滤除干扰和吸收杂波
- ◎有一定的安全保护作用和优良的抗脉冲能力
- ◎一体化的设计，便于使用安装，提高可靠性
- ◎适用于电源跨线降噪线路，数控机床，音响设备等交直流场合
- ◎Of resonant circuit, effectively filter out noise interference and absorption
- ◎There is a certain security protection and good ability to resist the pulse
- ◎The integration of design, easy to use to install, improve the reliability
- ◎Apply to power line noise reduction circuit, nc machine tools, audio equipment and other ac/dc

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	IEC60384-14
气候类别	Climatic Category	40/100/21
额定电压	Rated Voltage	250VAC
电容偏差	Capacitance Tolerance	±10%(K)、±20%(M)
耐电压	Voltage Proof	1200VDC
绝缘电阻	Insulation Resistance	≥ 7500MΩ, CR ≤ 0.33uF (20°C,1min)
		> 2500s, CR > 0.33uF

# C65 (CBB65)

金属化聚丙烯膜交流电动机电容器(圆柱型、壳、防爆)  
METALLIZED POLYPROPYLENE FILM AC MOTOR CAPACITOR  
(COLUMN\ALUMINIUMCASE\ANTI-EXPLOSION)



外形图 Outline Drawing

## FEATURES 特点

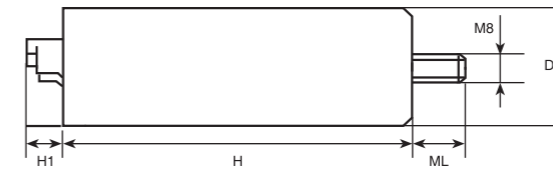
- ◎外壳封装, 外观一致性好 ◎保护等级: P2
- ◎高频损耗小, 适用于较大电流电路
- ◎绝缘电阻高, 自愈性好, 寿命长
- ◎适用于频率为50Hz(60Hz)的交流电源供电的单相电动机的起动和运转
- ◎Shell encapsulation, look good consistency
- ◎Protection grade: P2
- ◎Small loss at high frequency, suitable for large current circuit
- ◎High insulation resistance, good self-healing, long service life
- ◎Applicable to the frequency of 50 hz (60 hz) of the ac power supply starting and running of the single phase motor

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	GB 3667(IEC 252)	
气候类别	Climatic Category	40/85/21	
额定电压	Rated Voltage	250VAC~500VAC	
电容量范围	Capacitance Range	8~50uf	
电容偏差	Capacitance Tolerance	±5%(J)、±10%(K)	
耐电压	Voltage Proof	引出端之间 Between Terminals	1.6U <sub>n</sub> (5s)
		引出端与外壳之间 Terminals to case	2000VAC
损耗角正切	Dissipation Factor	≤0.4%(20°C, 1KHz)	
绝缘电阻	Insulation Resistance	>4000s	(20°C, 1min)

# (CBB80) C80

金属化聚丙烯膜灯具电容器  
METALLIZED POLYPROPYLENE FILM CAPACITOR FOR LAMP



外形图 Outline Drawing

## FEATURES 特点

- ◎塑料(或铝)外壳封装, 外观一致性好 ◎高频损耗小, 适用于较大电流电路
- ◎绝缘电阻高, 自愈性好, 寿命长 ◎广泛应用于日光灯, 高效金属卤化物灯等照明灯具
- ◎Plastics (or aluminum) shell encapsulation, good consistency in appearance
- ◎Small loss at high frequency, suitable for large current circuit
- ◎High insulation resistance, good self-healing, long service life
- ◎Widely used in fluorescent lamp, high efficiency of metal halide lamps and other lighting lamps and lanterns

## TECHNICAL SPECIFICATIONS 技术要求

引用标准	Reference standard	IEC1048, EN61048	
气候类别	Climatic Category	40/85/21	
额定电压	Rated Voltage	125VAC~630VAC	
电容量范围	Capacitance Range	8~50uf	
电容偏差	Capacitance Tolerance	±5%(J)、±10%(K)、±20%(M)	
耐电压	Voltage Proof	引出端之间 Between Terminals	1.6UR(5s)
		引出端与外壳之间 Terminals to case	2000VAC
损耗角正切	Dissipation Factor	≤0.2%(20°C, 1KHz)	
绝缘电阻	Insulation Resistance	>7500S	(20°C, 1min)
放电性能	Discharge performance	Un下断开后60s剩余电压小于50V	
		Less than 50V after breakage in 60 seconds at U <sub>n</sub> .	
稳态过电压	Voltage under steady state	允许1.1Un下长期运行Running under 1.1Un for long-period	
稳态过电流	Current under steady state	允许1.5In下长期运行Running under 1.5In for long-period	