

规格承认书
Specification For Approval

(Customer Name)

客户名称:

(Product Name)

产品名称:

Double-sided metallized polypropylene film capacitor
双面金属化聚丙烯膜电容器

(Customer part number)

客户料号:

(KNSCHA number)

科尼盛料号:

MMK124J630V82CB0205

(Specifications)

型号规格:

MMKP82 124J/630V P=22.5mm

DATE

日期:

2026.8.11

Manufacture 制造	
APPROVAL 核准	PREPARED 制作
刘军	林炎

CUSTOMER APPROVED 客户承认栏		
APPROVED 核准	CHECKED 确认	CHECKED 确认

广东科尼盛电子科技有限公司
KNSCHA ELECTRONICS CO.,LIMITED.

Buildings A2-A3, Huijin Zhantuo Science and Technology Park,

地址: 广东省东莞市东坑镇汇金展拓科技园 A2-A3 栋

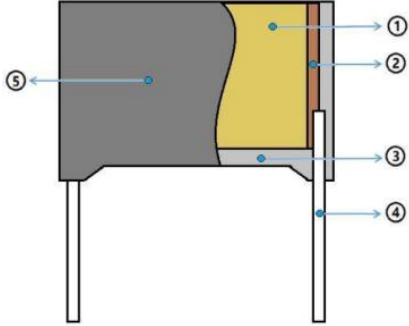
Dongkeng Town, Dongguan City, Guangdong Province

TEL 电话:0769-83698067 81035570 FAX 传真:0769-83861559

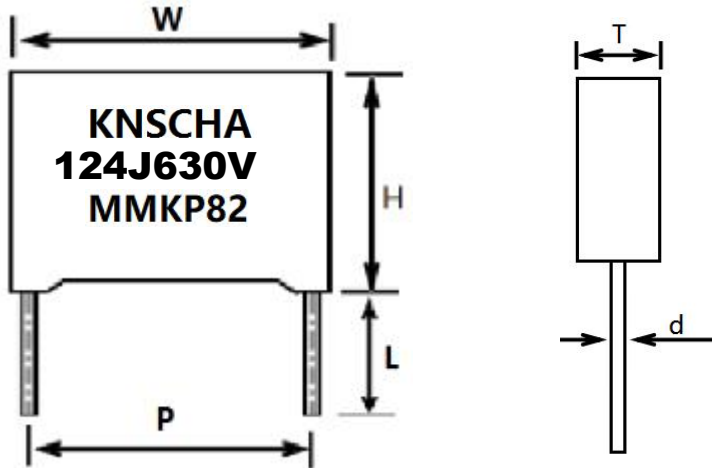
Email 邮箱: sales@knscha.com Website 官网:http://www.knscha.com



■ **Product Structure Diagram** 产品结构图

Construction 构造	Explanation 说明
	①Core 电容芯子 ② Plated layer(tin-zinc alloy) 喷金层 ③Epoxy resin sealed, flame retardant UL-class 94 V-0 环氧树脂, 阻燃等级UL94 V-0 ④CP Wire CP线 ⑤Plastic case, flame retardant UL-class 94 V-0 塑料外壳, 阻燃等级UL94 V-0

■ **Shape and Size Styles** 外形、尺寸样式

Dimensions 尺寸规格						Marking 印字标示	Explain 说明		
						KNSCHA	KNSCHA Logo 科尼盛公司商标		
						124	Capacitance 容量规格		
						J	Capacity Error Value 容量误差值		
						630V	Rated voltage 额定电压		
						MMKP82	Type 产品型号		
No.	Specifications 规格	Capacitance (μ F) 容量	W ± 0.5	H ± 0.5	T ± 0.5	P ± 0.5	d ± 0.05	L ± 2	Remarks 备注
1	124J630V	0.12	26.5	16	7	22.5	0.8	20	
	/								

Size: units mm

尺寸：单位 mm

■ **Characteristic** **特点:**

- Excellent self-healing performance
优良的自愈性能
- Excellent high-frequency performance
优良的高频性能
- Excellent temperature characteristics
优良的温度特性
- Excellent moisture resistance
优异的防潮性能
- Excellent flame retardant properties
优异的阻燃性能
- Lower loss values and higher insulation resistance
较低损耗值和高绝缘电阻
- Excellent capacitance stability under long-term load conditions
长期负载下优异的电容量稳定性

■ **Main application** **主要用途:**

- Widely used in high-voltage and high-frequency pulse circuits
广泛应用于高压高频脉冲电路中
- Suitable for LC resonant circuits
适用于 LC 谐振电路中

■ Technical requirement 技术要求:

Reference Standards 引用标准	GB/T 10190 (IEC 60384-16)					
Climate Categories 气候类别	40/110/56					
Flame Retardant Rating 阻燃等级	B					
Rated Voltage 额定电压	250V、400V、630V、1000V、1600V、2000V					
Operating Temperature Range 工作温度范围	-40℃ ~ +110℃ (+85℃ to +110℃: decreasing factor 1.25% per °C for UR (dc)) 直流额定电压 (UR), 温度每升高 1℃, 衰减系数为 1.25% (+75℃ to +110℃: decreasing factor 1.35% per °C for UR (ac)) 额定交流电压 (UR), 温度每升高 1℃, 衰减系数为 1.35%					
Capacitance Range 电容量范围	0.0001μF~0.47μF					
Capacitance Tolerance 电容量偏差	G(±2%), H(±3%), J(±5%), K (±10%) , M (±20%)					
Withstand voltage 耐电压	1.6UR(5S)					
Tangent of loss angle(DF) 损耗角正切	≤ 0.1%(1KHz , 20℃)					
Insulation Resistance 绝缘电阻	≥ 30000MΩ; CR ≤ 0.33μF ≥ 10000S; CR > 0.33μF			20℃, 100V, 60S		
最大爬升速率(Max dV/dt):若实际工作电压 U 比额定电压 UR 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 UR/U。 Maximum rate of voltage rise (Max dV/dt): When the actual operating voltage U is lower than the rated voltage UR, the capacitor can operate under higher dV/dt conditions; in this case,the permissible dV/dt value should be calculated as the value in the table multiplied by UR/U.	UR(V)	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
	660	3200	3200	2500	1500	900
	1000	6000	6000	3300	2100	1000
	1600	——	——	6000	3000	2000
	2000	——	——	10000	5000	2200

■ Characteristic test 特性测试:

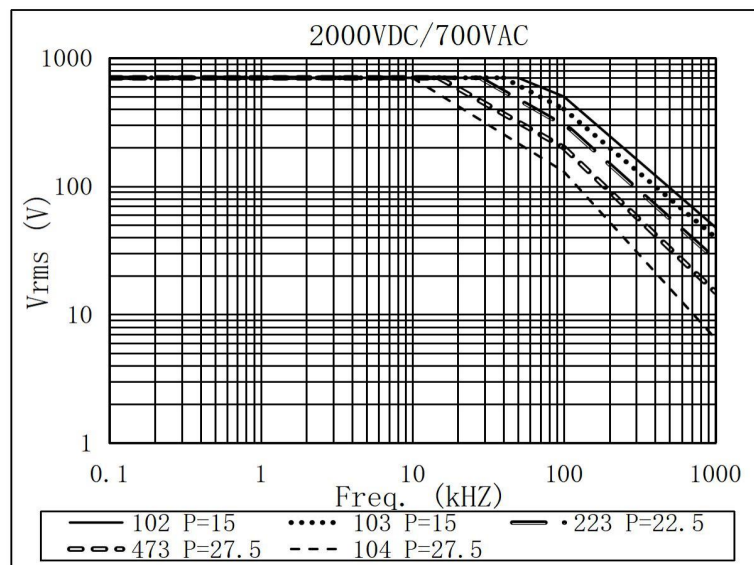
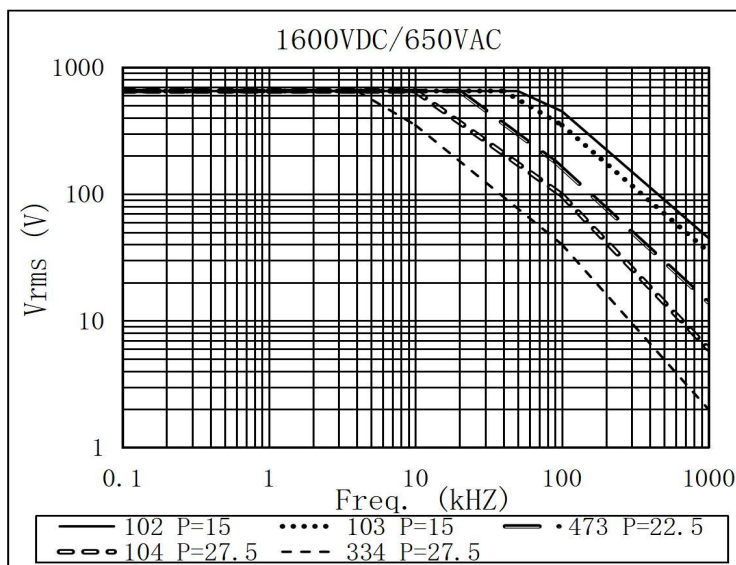
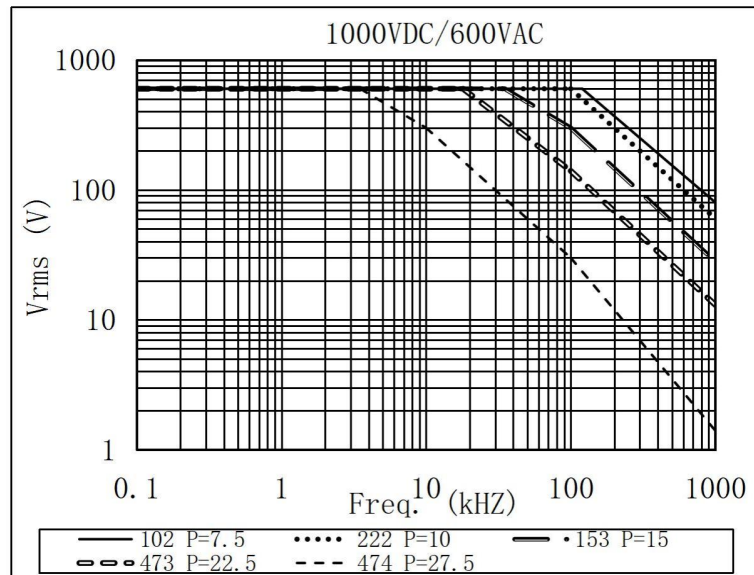
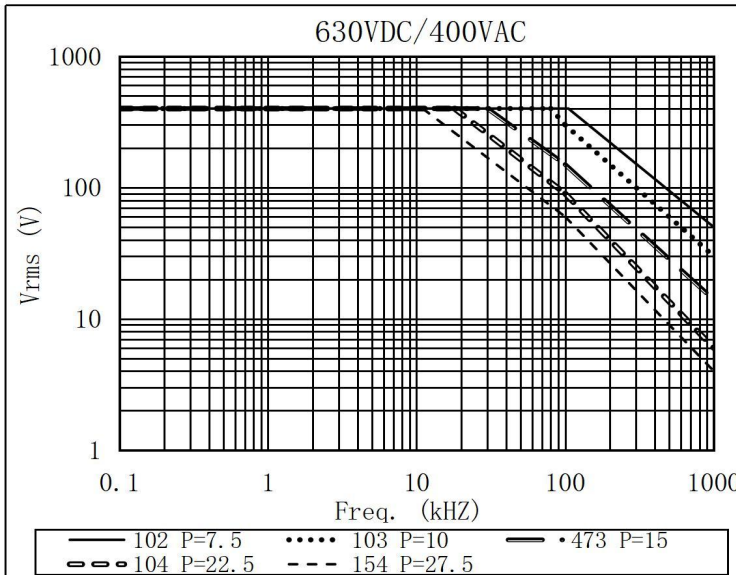
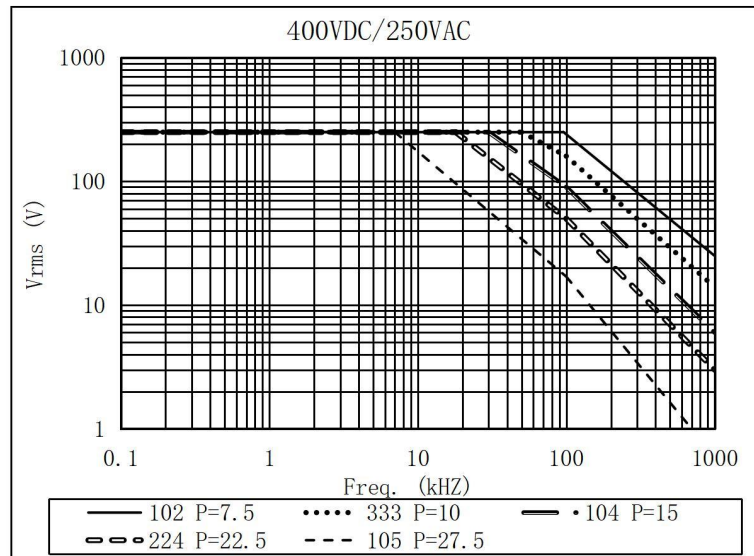
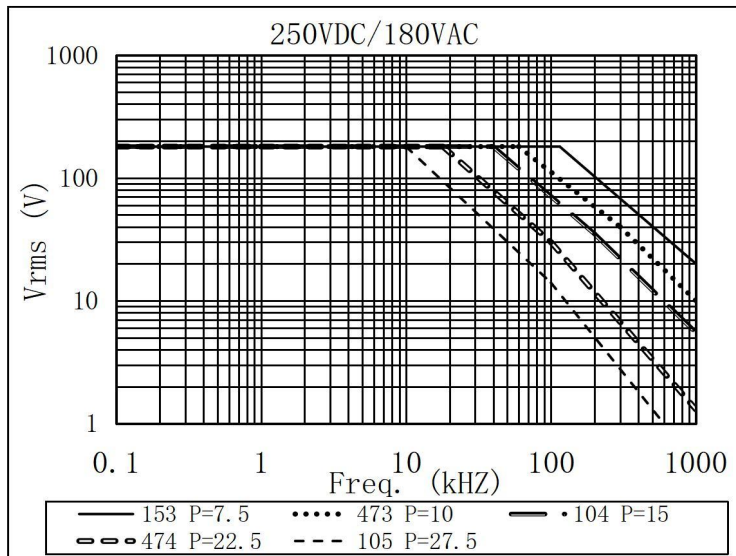
No.	Item 项目	Performance requirements 性能要求	Conditions of test IEC 60384-16 试验方法 IEC 60384-16
1	Initial measurement 初始测量	Capacitance 电容量 Dissipation Factor 损耗角正切: 1KHz	
	Robustness of terminations 引出端强度	No visible damage Legible marking 外观无可见损伤	Tension test Ual 端子拉力试验 Pull 拉伸: $0.5 < \phi d \leq 0.8\text{mm}; 10\text{N}$ bend test Ub 弯曲试验 Bend twice in each direction 每个方向弯折两次 Twist: Two consecutive 180° twists 扭转: 连续两次 180°扭转
	Resistance to soldering heat 耐焊接热	No visible damage, The marking shall be legible 外观无可见损伤, 标志清晰	Weld groove method Tb 焊槽法 method 1A 方法 1A Temperature 温度: $260 \pm 5^\circ\text{C}$ Test times 测试时长: $5 \pm 1\text{S}$
	Final measurement 最后测量	Capacitance 电容量: $\Delta C/C \leq \pm 5\%$ of initial measurement $\Delta C/C \leq \text{初始测量值} \pm 5\%$ Loss tangent: DF increase $\leq 0.001(1\text{KHz})$ 损耗角正切: DF 增加 $\leq 0.001(1\text{KHz})$	
2	Initial measurement 初始测量	Capacitance 电容量 Dissipation Factor 损耗角正切: 1KHz	
	Rapid change of temperature 温度快速变化	No visible damage to the visually examined 外观无可见损伤	$0_A = -40^\circ\text{C}$, $0 = +110^\circ\text{C}$ 5 cycles; Duration: $t = 30\text{ min}$ 5 次循环, 持续时间: $t = 30\text{ 分钟}$
	Vibration 振动	No visible damage to the visually examined 外观无可见损伤	Vibration amplitude 0.75 mm or acceleration 98m/s^2 (whichever represents the less severe condition). Frequency range: 10 ~ 500 Hz. Test in three orthogonal directions, 2 hours per direction, total test duration 6 hours. 振幅 0.75mm 或加速度 98m/s^2 (取严酷度较小者), 频率 10~500Hz 三个方向, 每个方向 2h, 共 6h
	Bump 碰撞	No visible damage to the visually examined 外观无可见损伤	4000 cycles, acceleration 390m/s^2 pulse duration: 6 ms 4000 次, 加速度 390 m/s^2 脉冲持续时间: 6ms
	Final measurement 最后测量	Capacitance 电容量: $\Delta C/C \leq \pm 5\%$ of the initial measurement value. $\Delta C/C \leq \text{初始测量值的} \pm 5\%$ Loss tangent: DF increase $\leq 0.01(1\text{KHz})$ 损耗角正切: DF 的增加 ≤ 0.01 Insulation resistance $IR \geq 50\%$ of the applicable limits. 绝缘电阻 IR: $\geq \text{额定值的 } 50\%$	

No.	Item 项目	Performance requirements 性能要求	Conditions of test IEC 60384-16 试验方法 IEC 60384-16
3	Initial measurement 初始测量	Capacitance 电容量 Dissipation Factor 损耗角正切: 1KHz	
	Dry heat 干热	Refer to the last measurement of No.3 参考 No.3 最后测量	Temperature 温度: 110°C Test time 测试时间: 16 h
	Damp heat, cyclic 循环湿热	Refer to the last measurement of No.3 参考 No.3 最后测量	Test Db,Severity b,1st cycle Test Db 试验Db, 严酷度b, 第一次循环
	Cold 寒冷	Refer to the last measurement of No.3 参考 No.3 最后测量	Temperature 温度: - 40°C Test time 测试时间: 2h
	Low air pressure 低气压	During the final 5 minutes of the test, apply UR. No permanent breakdown, arcing or harmful deformation of the enclosure shall occur. 在试验底最后 5 分钟, 施加 U_R 无永久性击穿, 飞弧或外壳底有害变形	15~35°C,8.5Kpa,1h 温度 15~35 摄氏度, 气压 8.5 千帕, 持续 1 小时
	Damp heat, cyclic 循环湿热	After the test is completed, apply UR for 1 minute 试验结束后, 施加额定电压持续 1 分钟	Test 试验 Db Severity 严酷度 b Other Circulations 其余循环
	Final measurement 最后测量	No visible damage,The marking shall be legible 外观无可见损伤, 标志清晰 Capacitance 电容量: $\Delta C/C \leq \pm 5\%$ of initial measureme $\Delta C/C \leq$ 初始测量值的 $\pm 5\%$ Loss tangent 损耗角正切: $DF \leq 0.01$ Voltage withstand 耐电压: 1.6URDC,5S No breakdown or arcing 无击穿或飞弧 Insulation resistance IR $\geq 50\%$ of the applicable limits 绝缘电阻 $IR \geq$ 额定值 50%	

No.	Item 项目	Performance requirements 性能要求	Conditions of test IEC 60384-16 试验方法 IEC 60384-16
4	Damp heat, steady state (DHSS) 稳压湿热	No visible damage,The marking shall be legible 外观无可见损伤, 标志清晰 Capacitance 电容量: $\Delta C/C \leq \pm 5\%$ of initial measurement Loss tangent:DF increase ≤ 0.01 损耗角正切(1KHz): DF 的增加≤ 0.01 Insulation resistance IR $\geq 50\%$ of the applicable limits 绝缘电阻 IR$\geq$额定值的 50%	Temperature 温度: $40 \pm 2^\circ\text{C}$ Humidity 湿度: $93 \pm 2\% \text{RH}$ Duration: 56 days, in line with the climatic category of the capacitor Recovery shall be for 1h to 2h under standard atmospheric conditions for testing. 试验时长: 56 天, 符合电容器气候类别要求在标准大气条件下, 恢复时间应为 1 至 2 小时。
5	Endurance 耐久性	No visible damage,The marking shall be legible 外观无可见损伤, 标志清晰 Capacitance 电容量: $\Delta C/C \leq \pm 10\%$ of initial measurement $\Delta C/C \leq \pm 10\%$ of initial measurement Loss tangent:DF increase ≤ 0.01 损耗角正切(1KHz): DF 的增加≤ 0.01 Insulation resistance IR$\geq 50\%$ of the applicable limits 绝缘电阻 IR$\geq$额定值的 50%	Temperature 温度: $+110^\circ\text{C}$ Test times 测试时长: 1000h Applied voltage:1.25UR (Rated voltage) 施加电压: 1.25UR 额定电压
6	Charge and Discharge 充电与放电	Capacitance 电容量: $\Delta C/C \leq \pm 10\%$ of initial measurement $\Delta C/C \leq \pm 10\%$ of initial measurement Loss tangent:DF increase ≤ 0.01 损耗角正切(1KHz): DF 的增加≤ 0.01 Insulation resistance IR$\geq 50\%$ of the applicable limits 绝缘电阻 IR$\geq$额定值的 50%	Number of times 次数: 10000 次 Charging duration 充电持续时间: 0.5S Discharging time 放电持续时间: 0.5S Charging voltage: rated voltage 充电电压为额定电压 Charging resistance: 220/CR (Ω) or 20 Ω (take the larger value) 充电电阻: 220/CR (Ω) 或 20Ω (取较大者) CR: Nominal capacitance (μF) CR 称电容量 (μF)

No.	Item 项目	Performance requirements 性能要求					Conditions of test IEC60384-16 试验方法 IEC60384-16			
7	Passive flammability 阻燃性 试验	After removal of the flame, the continuous burning time of any capacitor shall not exceed 10 seconds. In addition, burning drippings from the capacitor shall not ignite the cotton paper placed underneath. 离开火焰后，任一电容器继续燃烧的时间不超过10s，且电容器燃烧的滴落物不应引燃在其下铺设的棉纸。						Of each case size, capacitance shall be tested, resulting in six specimens per case size. 每种外壳规格均测试电容值，每种规格取样六件样品。		
		Category of flammability 易燃性类别	Severities Flame exposure time, in seconds, for capacitor volume ranges 电容器不同体积范围对应的火焰暴露时（秒）				Maximum burning times 最大燃 烧时间			
			Volume ≤250mm ³	250mm ³ <Volume ≤500mm ³	500mm ³ <Volume ≤1750mm ³	Volume> 1750mm ³				
			A	15	30	60			120	3
			B	10	20	30			60	10
		C	5	10	20	30	30			

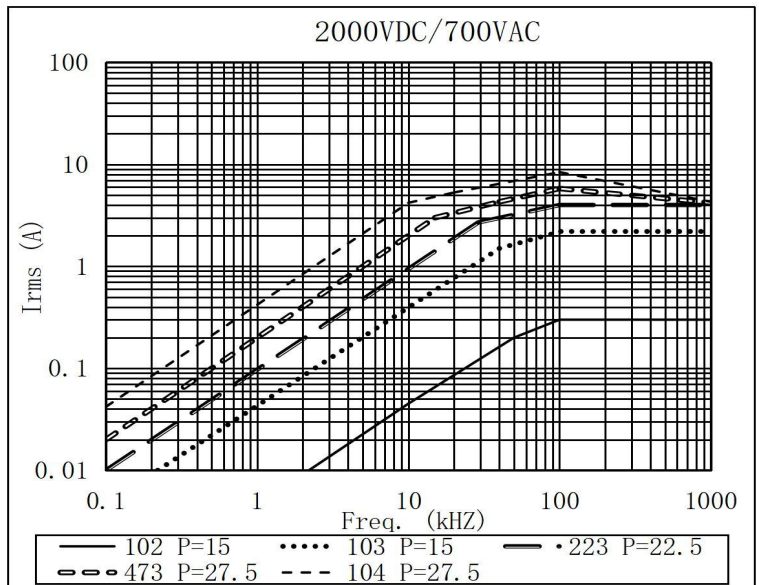
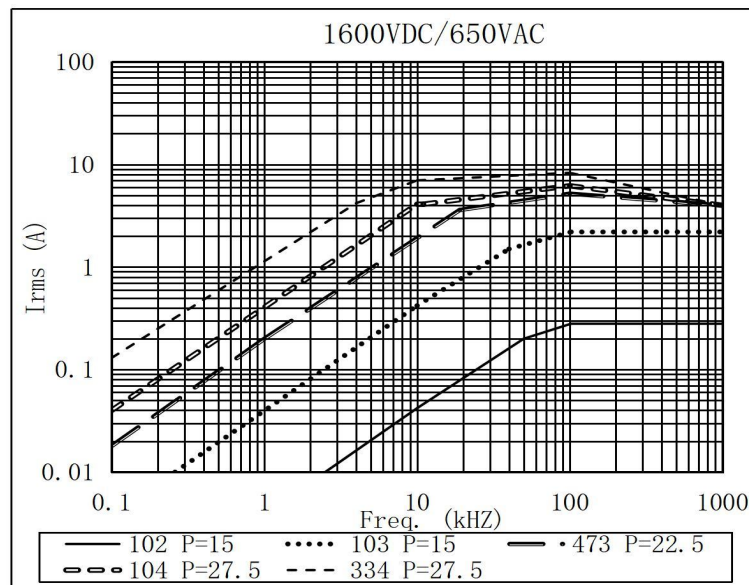
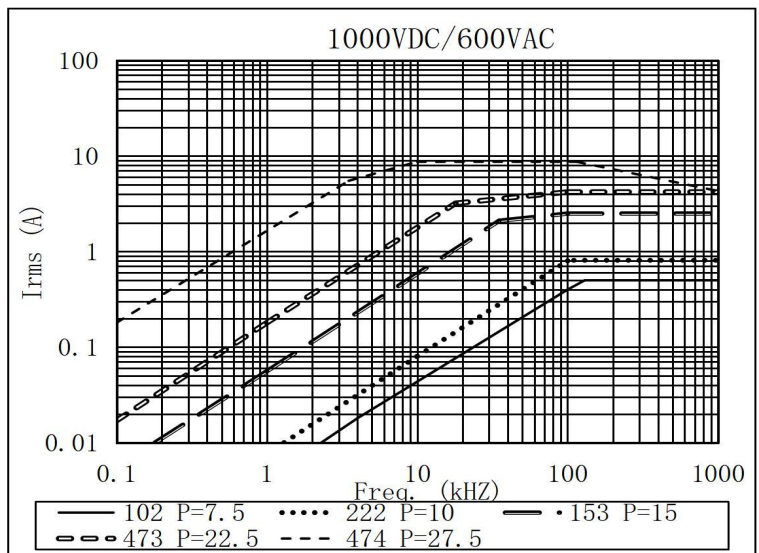
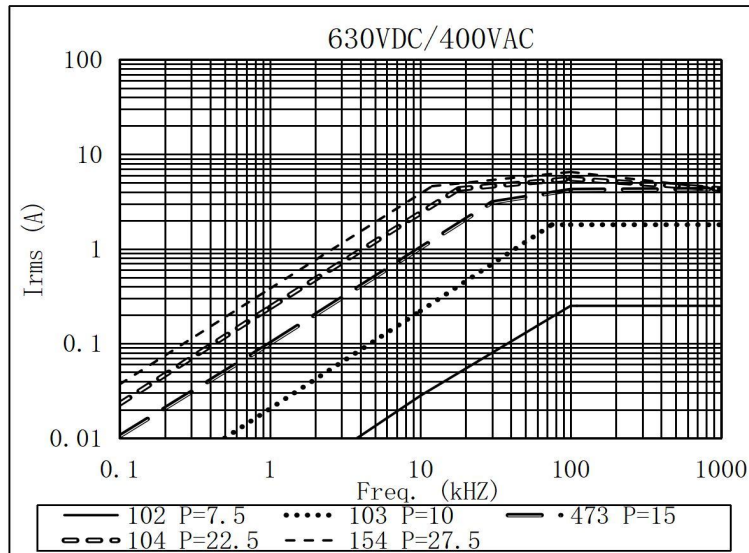
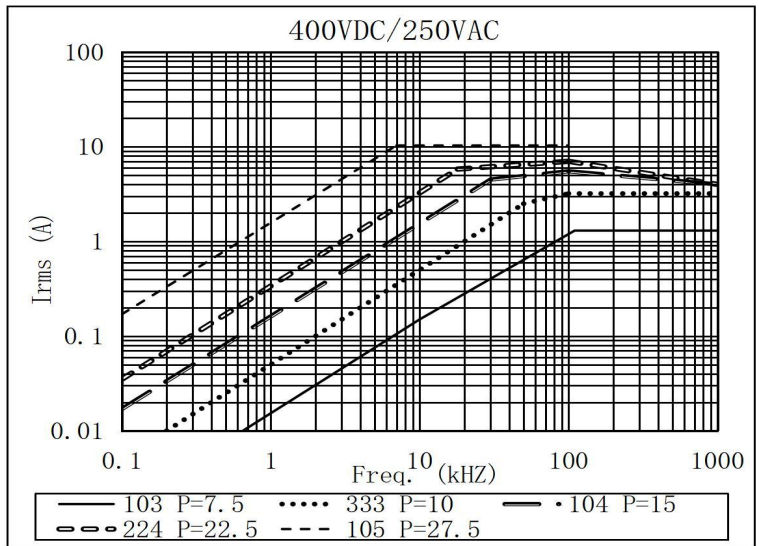
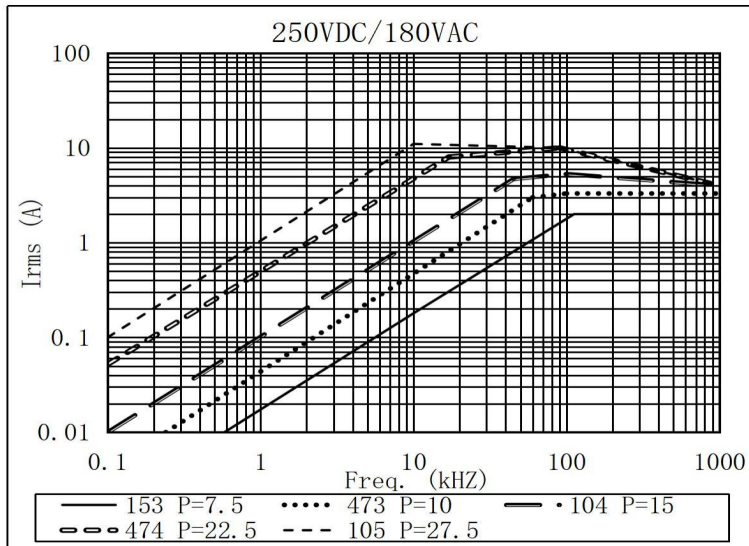
Maximum permissible voltage (Vr.m.s) — Frequency characteristic curve 最大可允许电 (Vr.m.s)——频率特性曲线



Remarks: Sine wave, ambient temperature $\leq 85^{\circ}\text{C}$, internal temperature rise $\Delta T = 10^{\circ}\text{C}$, P (mm)

备注：正弦波、环境温度 $\leq 85^{\circ}\text{C}$ 、内部温升 $\Delta T = 10^{\circ}\text{C}$ 、P(mm)

Maximum allowable current (Irms) — Frequency characteristic curve 最大可允许电流(Irms)——频率特性曲线

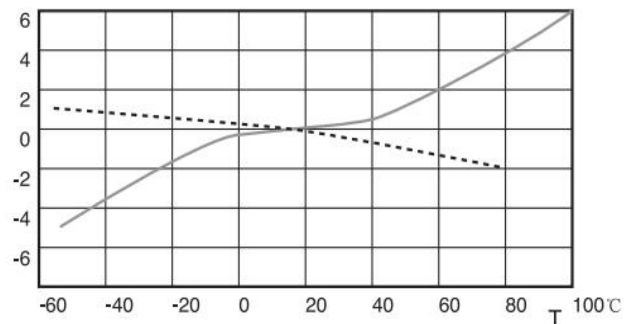


Remarks: Sine wave, ambient temperature $\leq 85^{\circ}\text{C}$, internal temperature rise $\Delta T = 10^{\circ}\text{C}$, P (mm)

备注: 正弦波、环境温度 $\leq 85^{\circ}\text{C}$ 、内部温升 $\Delta T = 10^{\circ}\text{C}$ 、P(mm)

■ Capacitor characteristic diagram 电容器特性图:

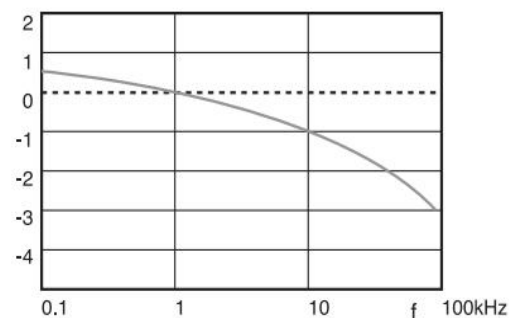
$\Delta C/C$ (%)



Capacitance vs. temperature at 1kHz

1kHz 频率下电容值随温度变化特性

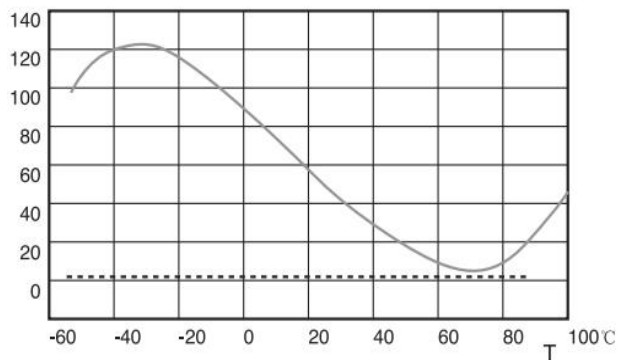
$\Delta C/C$ (%)



Capacitance vs. frequency (Room temperature)

电容值随频率变化曲线 (室温环境)

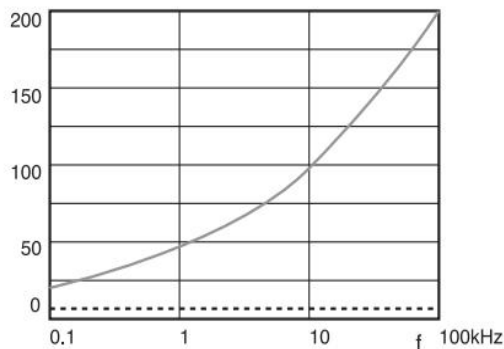
$\text{tg}\delta$ ($\times 10^{-4}$)



Dissipation factor vs. temperature at 1kHz

1kHz 下损耗因数随温度变化特性

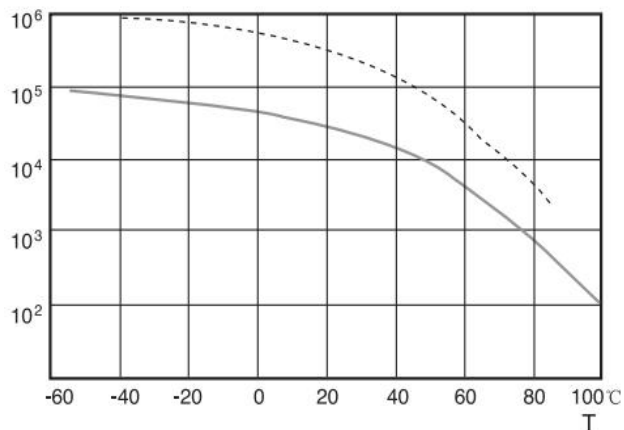
$\text{tg}\delta$ ($\times 10^{-4}$)



Dissipation factor vs. frequency (Room temperature)

室温下损耗因数随频率变化特性

I.R. (MΩ)



I.R. vs. temperature

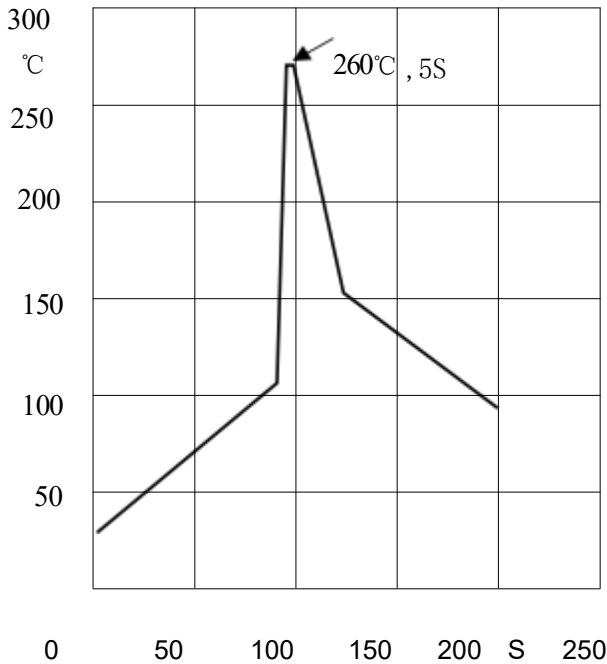
绝缘电阻随温度变化特性

聚丙烯薄膜 (Polypropylene Film)

—————

聚酯薄膜 (Polyester Film)

1. Welding conditions 焊接条件:



	Temperature 温度	Time 时间	Remarks 备注
Preheat 预热	110°C	60S	
	100°C	60S	OPP≤7.5
Weld 焊接	270°C	5S	
	260°C	5S	OPP≤7.5

The temperature of the metallized polypropylene film capacitor does not exceed 120°C for 60 seconds.

金属化聚丙烯膜电容器产品本体温度不超过 120°C/60S。

The temperature of the metallized polyester film capacitor body should not exceed 140°C for 60 seconds.

金属化聚酯膜电容器产品本体温度不超过 140°C/60S。

2. Soldering method 烙铁焊接方法:

Soldering iron tip temperature (max) 烙铁尖温度(max)	350°C
Soldering iron times 焊接时间	2-3S

Note: If a second weld is required, wait until the capacitor cools to room temperature.

注意: 如果需第二次焊接, 必须等到电容器恢复到常温。

3. Notes 注意:

(1) Scope Of Use 使用范围:

- Do not exceed the specified maximum temperature limit during use.
使用时不要超过上限类别温度
- Avoid overusing this product.
避免过载使用

(2) Product Storage Conditions 产品存储条件:

- Temperature range: -40°C to 35°C; annual average humidity shall not exceed 70%.
温度范围: -40°C到 35°C; 湿度年平均值≤70%。
- Storage period: Calculated from the date marked on the product package or the product itself.
储存时间: 从产品包装或产品本体上的日期算起
- Bulk products (plastic bag packaging): Maximum storage life of 2 years. Products in Taping packaging: Maximum storage life of 1 year. 散装产品 (塑料袋包装): 不超过 2 年; 编带产品: 不超过 1 年

(3) If used the capacitor that overdue the storage time, it should be test the characteristics of the capacitor or contact with our technical engineer. 若使用超储存期电容器, 需检测各项性能参数, 或联系我方技术工程师。