

东莞市科雅电子科技有限公司

Dongguan keya electronic technology co. LTD

## 規格承認書

SPECIFICATIONS FOR APPROVAL

客戶名稱:

华秋商城

CUSTOMER

產品名稱:

塑料外壳双面金属化聚丙烯膜电容器

ITEM

產品類型

MMKP82 灰壳白胶 (MMKP682J3A1001)

CUSTOMER'S PART NO.

產品規格

MMKP82 682J1000V P10 13\*12\*6 KYET 灰壳

CUSTOMER'S P/N:

铜脚 100KHZ 测试

日期

ISSUED DATE

2025 年 08 月 12 日

## 承認印 (APPROVAL STAMP)

供應商 (VENDER)

客戶 (CUSTOMER)



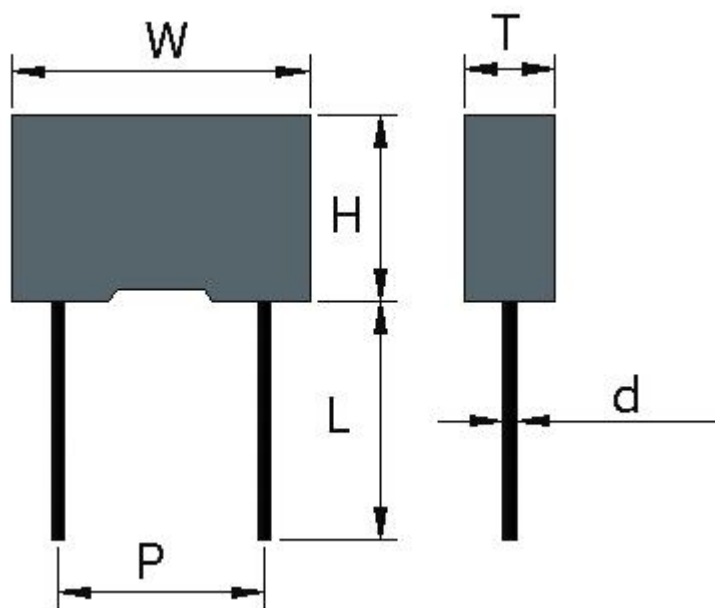
- ◆ 如果您有特殊要求请联系我们，我们将提供符合您要求的产品。
- ◆ If your requirement is special please contact us, we will test products as per your requirement.

## 塑料外壳双面金属化聚丙烯膜电容器 MMKP82

Double sided metallized polypropylene film capacitor (Box-type)

### ■ 外形图 Outline Drawing

正面印字:



SIZE :

(W\*H\*T) MMKP82 682J1000V P10 13\*12\*6 KYET 灰壳白胶

### ■ 特点:

- 双面金属化聚丙烯引出
- 损耗小, 内部温升小
- 负点容量温度系数
- 优异的阻燃系数

### ■ Features

- Double sided metallized polypropylene structure
- Low loss and small inherent temperature rise
- Negative temperature coefficient of capacitance
- Excellent active and passive flame resistant circuit

## ■ 主要用途

- 广泛应用与高压,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
- Lamp capacitor for electronic ballast compact lamps
- SNUBBER and SCR commutation circuits

## ■ 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 Range                                                                                                                                                                                                                                                  | 85℃ for VR(DC); 75℃ for VR(AC)                                                                                                          |             |        |        |        |        |
| 工作温度范围 Operating Temperature Range                                                                                                                                                                                                                                            | -40℃~105℃<br>(+85℃ to +105℃: decreasing factor 1.25% per °C for VR (DC))<br>(+75℃ to +105℃: decreasing factor 1.25% per °C for VR (AC)) |             |        |        |        |        |
| 额定电压 Rated Voltage                                                                                                                                                                                                                                                            | 250V, 400V, 630V, 1000V, 1600V, 2000V,3000V                                                                                             |             |        |        |        |        |
| 电容量范围 Capacitance Range                                                                                                                                                                                                                                                       | 0.00022uF~3.9uF                                                                                                                         |             |        |        |        |        |
| 电容量偏差 Capacitance Tolerance                                                                                                                                                                                                                                                   | ±2%(G), ±3%(H), ±5%(J), ±10%(K), ±20%(M)                                                                                                |             |        |        |        |        |
| 耐电压 Voltage Proof                                                                                                                                                                                                                                                             | 1.60UR (5S)                                                                                                                             |             |        |        |        |        |
| 损耗角正切 Voltage Proof                                                                                                                                                                                                                                                           | ≦0.0010 (1KHz, 20℃)                                                                                                                     |             |        |        |        |        |
| 绝缘电阻 Insulation Resistance                                                                                                                                                                                                                                                    | ≧50 000MΩ CR≧0.33uF (20℃, 100V, 1min)<br>≧1 5000S CR>0.33uF                                                                             |             |        |        |        |        |
| 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 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。<br>If the working voltage(U) is low than the rated voltage(UR),the capacitor can be workd at a higher dV/dt is obtian by multiplying the right value with 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    |
|                                                                                                                                                                                                                                                                               | 630                                                                                                                                     | 3200        | 3200   | 2500   | 1500   | 900    |
|                                                                                                                                                                                                                                                                               | 1000                                                                                                                                    | 6000        | 6000   | 3300   | 2100   | 1000   |
|                                                                                                                                                                                                                                                                               | 1600                                                                                                                                    | -----       | -----  | 6000   | 3000   | 2000   |
|                                                                                                                                                                                                                                                                               | 2000                                                                                                                                    | -----       | -----  | 10000  | 5000   | 2200   |

## ■ 电容器结构

- 采用聚丙烯薄膜作为介质，以自愈特性优良的耐高温双面金属化聚酯薄膜作电极，双端喷金形成无感结构，单向引出，引出采用镀锡铜线(CU 线)，阻燃环氧树脂灌封。

## ■ Capacitor Structure

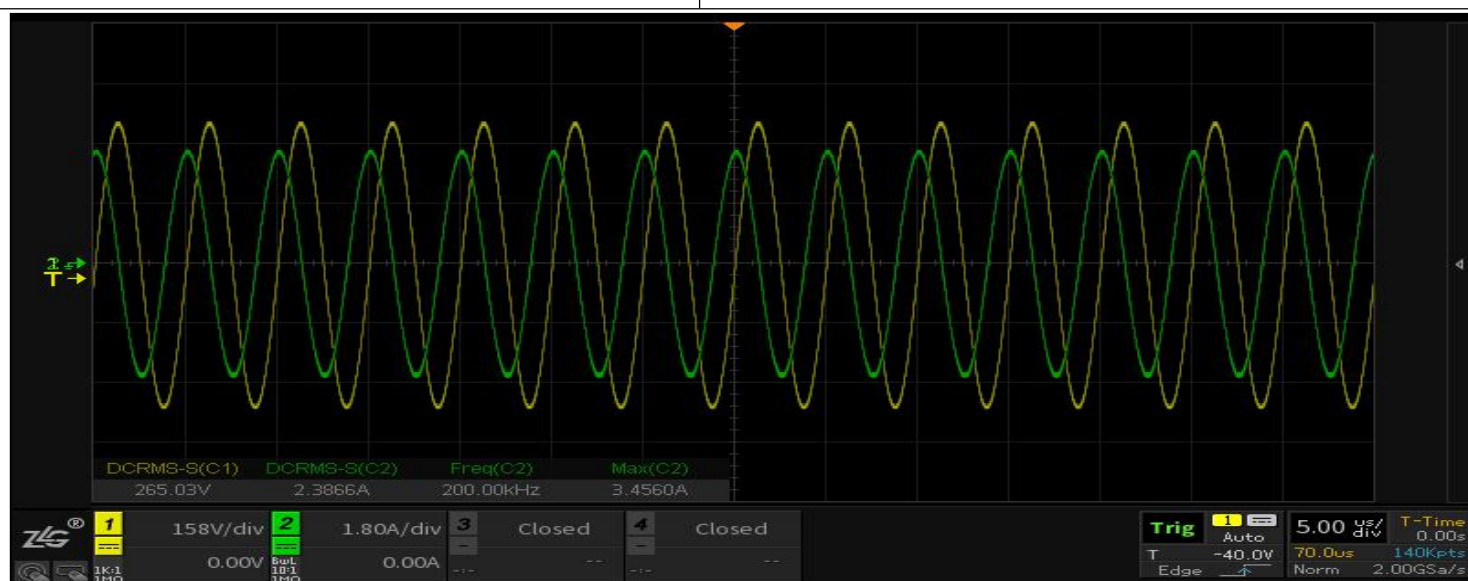
- With polypropylene film dielectric,pole with double sided metallized polyester film,twain section spray-metal form Non-inductive configuration,Electrode lead unilateralism fetch out and fame retardant epoxy resin dip sealed.

## 外形尺寸 Dimensions (mm)

| 料号             | CAP<br>(nF) | VDC   | VAC | 尺寸<br>W*H*T(±0.5mm) | Φd<br>±0.05mm | 正面<br>激光印字               | L<br>(Min-mm) | P<br>±0.5mm |
|----------------|-------------|-------|-----|---------------------|---------------|--------------------------|---------------|-------------|
| MMKP682J3A1001 | 6.8         | 1000V | 500 | 13*12*6             | 0.6 铜线        | KYET MMKP82<br>682J1000V | 18            | 10          |

备注：以上产品采用双面金属化薄膜串联结构，外表颜色灰盒白胶。

|                        |                       |
|------------------------|-----------------------|
| 电容量 Capacitance        | 6.8nF                 |
| 额定电压 Rated Voltage:    | 1000VDC               |
| 交流电压 Voltage AC        | 500VAC                |
| 损耗角 Dissipation Factor | 0.08%                 |
| 最大允许电流 Irms max        | 2.39Amps (200KHz 70℃) |
| 纹波电流 I Peak A          | 3.46A (200KHz 70℃)    |



系列尺寸请参考：

| 250DC(180VAC) |       |       |       |       |        | 250DC(180VAC) |       |       |       |       |        |
|---------------|-------|-------|-------|-------|--------|---------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.0068        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.18          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.0082        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.22          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.010         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.27          | 18.0  | 14.5  | 8.5   | 15    | 0.8    |
| 0.012         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.33          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.015         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.39          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.018         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.22          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.022         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.27          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.027         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.33          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.033         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.39          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.039         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.47          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.047         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.56          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.027         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.68          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.033         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.82          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.039         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 1.0           | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.047         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.82          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.056         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 1.0           | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.068         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 1.2           | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.082         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 1.5           | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.068         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 1.8           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.082         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 2.2           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.10          | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 2.7           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.12          | 18.0  | 12.0  | 6.0   | 15    | 0.6    | 3.3           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.15          | 18.0  | 12.0  | 6.0   | 15    | 0.6    | 3.9           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |

■ 外形尺寸 Dimensions (mm)

| 400DC(250VAC) |       |       |       |       |        | 400DC(250VAC) |       |       |       |       |        |
|---------------|-------|-------|-------|-------|--------|---------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.0027        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.10          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.0033        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.12          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.0039        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.15          | 18.0  | 14.5  | 8.5   | 15    | 0.8    |
| 0.0047        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.18          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0056        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.22          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0068        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.27          | 18.0  | 19.0  | 11.0  | 15.0  | 0.8    |
| 0.0082        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.12          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.010         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.15          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.012         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.18          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.015         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.22          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.018         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.27          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.022         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.33          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.027         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.39          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.010         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.47          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.012         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.56          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.015         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.68          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.018         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.39          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.022         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.47          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.027         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.56          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.033         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.68          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.039         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.82          | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.047         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 1.0           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.033         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 1.2           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.039         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 1.5           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.047         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 1.8           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.056         | 18.0  | 11.0  | 5.0   | 15    | 0.6    |               |       |       |       |       |        |
| 0.068         | 18.0  | 12.0  | 6.0   | 15    | 0.6    |               |       |       |       |       |        |
| 0.082         | 18.0  | 12.0  | 6.0   | 15    | 0.6    |               |       |       |       |       |        |



**■ 外形尺寸 Dimensions (mm)**

| 630DC(400VAC) |       |       |       |       |        | 630DC(400VAC) |       |       |       |       |        |
|---------------|-------|-------|-------|-------|--------|---------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)    | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.00068       | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.033         | 18.0  | 12.0  | 6.0   | 15    | 0.8    |
| 0.00082       | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.039         | 18.0  | 12.0  | 6.0   | 15    | 0.8    |
| 0.0010        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.047         | 18.0  | 12.0  | 6.0   | 15    | 0.8    |
| 0.0012        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.056         | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.0015        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.068         | 18.0  | 14.5  | 8.5   | 15    | 0.8    |
| 0.0018        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.082         | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0022        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.10          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0027        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.12          | 18.0  | 19.0  | 11.0  | 15.0  | 0.8    |
| 0.0033        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.047         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0039        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.056         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0047        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.068         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0056        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.082         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0068        | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.1           | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0082        | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.12          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.010         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.15          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.012         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.18          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0039        | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.22          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0047        | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.27          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0056        | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.33          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0068        | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.39          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0082        | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.15          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.010         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.18          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.012         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.22          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.022         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.27          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.033         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.33          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.015         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.39          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.018         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.47          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.033         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.47          | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.047         | 13.0  | 12.0  | 6.0   | 10.0  | 0.6    | 0.56          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.010         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.56          | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.012         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.68          | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.015         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.82          | 32.0  | 28.0  | 14.0  | 27.5  | 0.8    |
| 0.018         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 1.0           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.022         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 1.2           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.027         | 18.0  | 11.0  | 5.0   | 15    | 0.8    |               |       |       |       |       |        |

|       |      |      |     |    |     |
|-------|------|------|-----|----|-----|
| 0.033 | 18.0 | 12.0 | 6.0 | 15 | 0.8 |
|       |      |      |     |    |     |

## ■ 外形尺寸 Dimensions (mm)

| 1000DC(600VAC) |       |       |       |       |        | 1000DC(600VAC) |       |       |       |       |        |
|----------------|-------|-------|-------|-------|--------|----------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.00047        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.018          | 18.0  | 12.0  | 6.0   | 15    | 0.8    |
| 0.00056        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.022          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.00068        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.027          | 18.0  | 14.5  | 8.5   | 15    | 0.8    |
| 0.00082        | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.033          | 18.0  | 12.0  | 6.0   | 15    | 0.8    |
| 0.001          | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.033          | 18.0  | 13.5  | 7.5   | 15    | 0.8    |
| 0.0012         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.033          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0015         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.039          | 18.0  | 16.0  | 10.0  | 15    | 0.8    |
| 0.0018         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.047          | 18.0  | 16.0  | 10.0  | 15.0  | 0.8    |
| 0.0022         | 10.0  | 9.0   | 4.0   | 7.5   | 0.6    | 0.047          | 18.0  | 19.0  | 11.0  | 15.0  | 0.8    |
| 0.0027         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.027          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0033         | 10.0  | 11.0  | 5.0   | 7.5   | 0.6    | 0.033          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.001          | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.039          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.0012         | 10.0  | 12.0  | 6.0   | 7.5   | 0.6    | 0.047          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.0015         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.056          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0018         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.068          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0022         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.082          | 18.0  | 16.0  | 10.0  | 15.0  | 0.8    |
| 0.0027         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.082          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0033         | 13.0  | 9.0   | 4.0   | 10    | 0.6    | 0.10           | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0039         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.12           | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0047         | 12.0  | 11.0  | 5.0   | 10    | 0.6    | 0.15           | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0056         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.15           | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0068         | 13.0  | 12.0  | 6.0   | 10    | 0.6    | 0.10           | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.0082         | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.12           | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.010          | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.15           | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.012          | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.18           | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.015          | 18.0  | 11.0  | 5.0   | 15    | 0.6    | 0.22           | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
|                |       |       |       |       |        | 0.27           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |



|  |  |  |  |  |  |      |      |      |      |      |     |
|--|--|--|--|--|--|------|------|------|------|------|-----|
|  |  |  |  |  |  | 0.33 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
|  |  |  |  |  |  | 0.39 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
|  |  |  |  |  |  | 0.47 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |

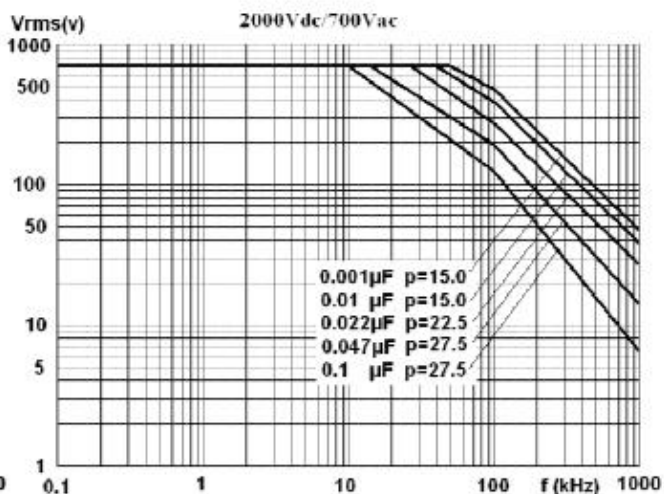
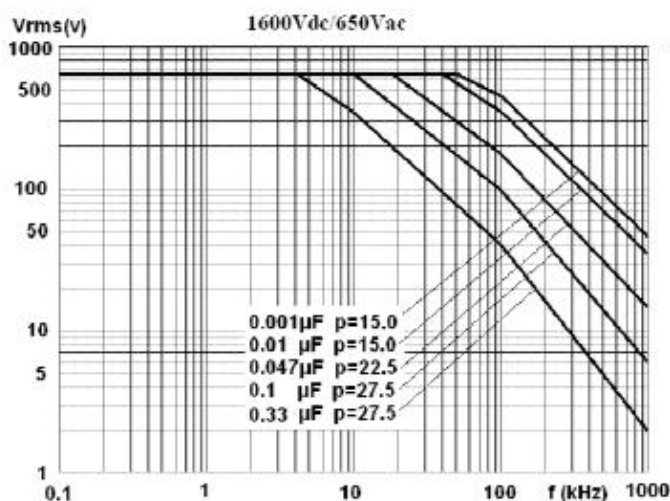
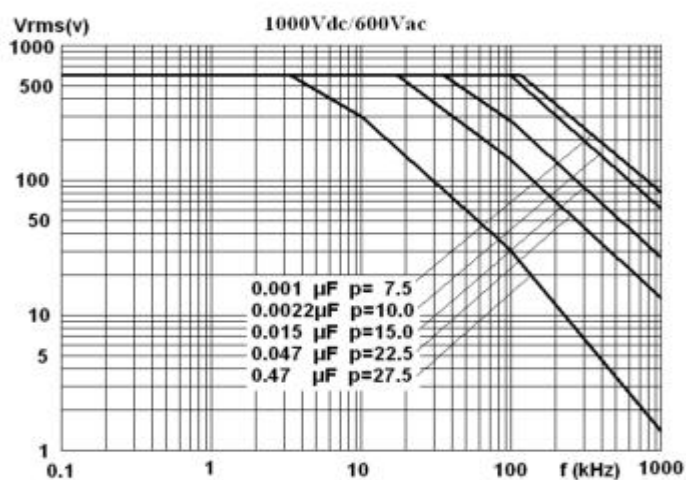
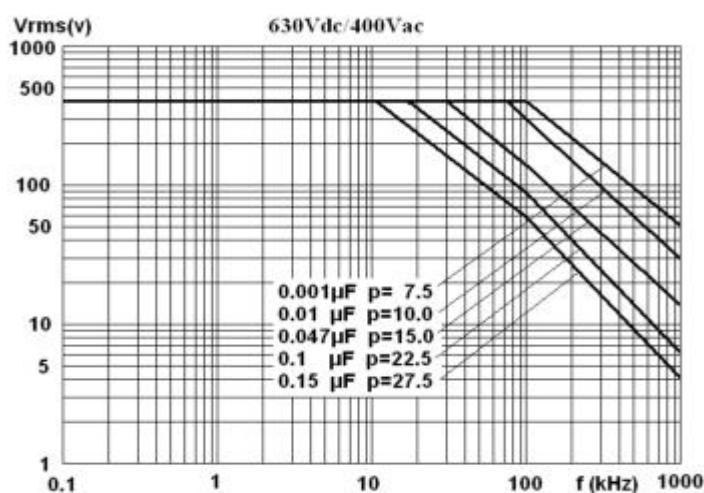
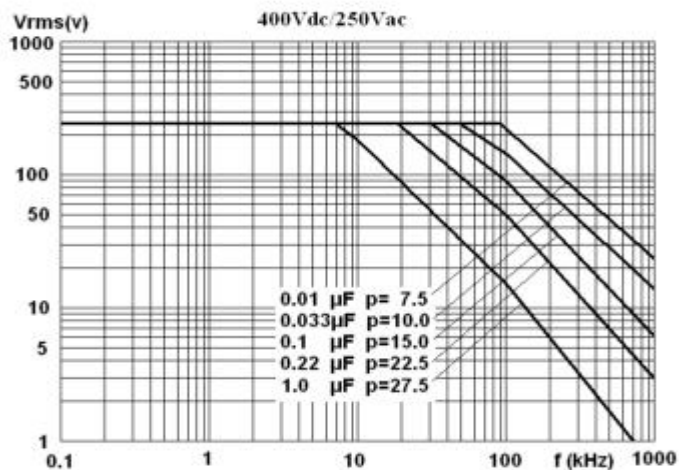
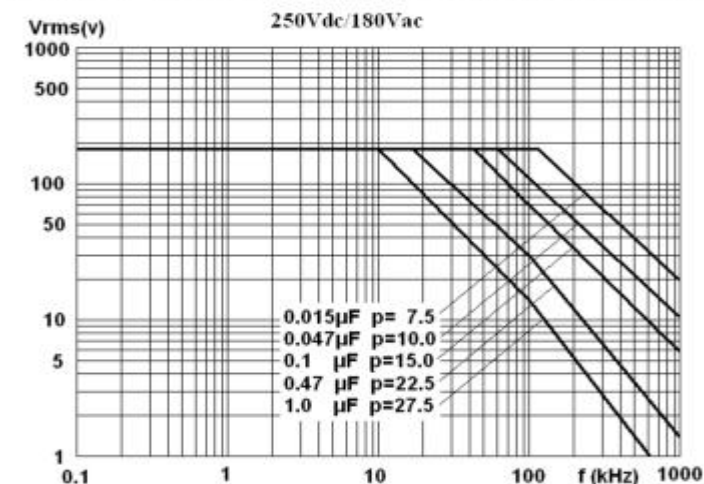
## ■ 外形尺寸 Dimensions (mm)

| 1600DC(650VAC) |       |       |       |       |        | 1600DC(650VAC) |       |       |       |       |        |
|----------------|-------|-------|-------|-------|--------|----------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.00068        | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.015          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00082        | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.018          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0010         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.022          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0012         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.027          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0015         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.027          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0018         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.033          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.0022         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.039          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0027         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.047          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0033         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.056          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0039         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.068          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0047         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.082          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0056         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.039          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.0068         | 18.0  | 11.0  | 5.0   | 15    | 0.8    | 0.047          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.0082         | 18.0  | 12.0  | 6.0   | 15    | 0.8    | 0.056          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.010          | 18.0  | 12.0  | 6.0   | 15    | 0.8    | 0.068          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.012          | 18.0  | 13.5  | 7.5   | 15    | 0.8    | 0.082          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.015          | 18.0  | 13.5  | 7.5   | 15    | 0.8    | 0.10           | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.018          | 18.0  | 14.5  | 8.5   | 15    | 0.8    | 0.12           | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.022          | 18.0  | 14.5  | 8.5   | 15    | 0.8    | 0.15           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.027          | 18.0  | 16.0  | 10.0  | 15    | 0.8    | 0.18           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.033          | 18.0  | 19.0  | 11.0  | 15.0  | 0.8    | 0.22           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.01           | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.27           | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
|                |       |       |       |       |        | 0.33           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |

**■ 外形尺寸 Dimensions (mm)**

| 2000DC(700VAC) |       |       |       |       |        | 2000DC(700VAC) |       |       |       |       |        |
|----------------|-------|-------|-------|-------|--------|----------------|-------|-------|-------|-------|--------|
| 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 | 容量<br>(uF)     | W±0.5 | H±0.5 | T±0.5 | P±0.5 | D±0.05 |
| 0.00022        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0027         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00027        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0033         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00033        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0039         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00039        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0047         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00047        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0056         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00056        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0068         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00068        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.0082         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.00082        | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.010          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0010         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.012          | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    |
| 0.0012         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.015          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.0015         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.018          | 26.5  | 16.0  | 7.0   | 22.5  | 0.8    |
| 0.0018         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.022          | 26.5  | 17.0  | 8.5   | 22.5  | 0.8    |
| 0.0022         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.022          | 18    | 14.5  | 8.5   | 15    | 0.8    |
| 0.0027         | 18.0  | 11.0  | 5.0   | 15.0  | 0.8    | 0.027          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0033         | 18.0  | 12.0  | 6.0   | 15.0  | 0.8    | 0.033          | 26.5  | 19.0  | 10.0  | 22.5  | 0.8    |
| 0.0039         | 18.0  | 12.0  | 6.0   | 15.0  | 0.8    | 0.039          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0047         | 18.0  | 12.0  | 6.0   | 15.0  | 0.8    | 0.047          | 26.5  | 22.0  | 12.0  | 22.5  | 0.8    |
| 0.0056         | 18.0  | 13.5  | 7.5   | 15.0  | 0.8    | 0.022          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.0068         | 18.0  | 13.5  | 7.5   | 15.0  | 0.8    | 0.027          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.0082         | 18.0  | 14.5  | 8.5   | 15.0  | 0.8    | 0.033          | 32.0  | 18.0  | 9.0   | 27.5  | 0.8    |
| 0.010          | 18.0  | 14.5  | 8.5   | 15.0  | 0.8    | 0.039          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.012          | 18.0  | 16.0  | 10.0  | 15.0  | 0.8    | 0.047          | 32.0  | 20.0  | 11.0  | 27.5  | 0.8    |
| 0.015          | 18.0  | 19.0  | 11.0  | 15.0  | 0.8    | 0.056          | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.0010         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.068          | 32.0  | 22.0  | 13.0  | 27.5  | 0.8    |
| 0.0012         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.082          | 32.0  | 24.5  | 15.0  | 27.5  | 0.8    |
| 0.0015         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.10           | 32.0  | 28.0  | 14.0  | 27.5  | 0.8    |
| 0.0018         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.12           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
| 0.0022         | 26.5  | 15.0  | 6.0   | 22.5  | 0.8    | 0.15           | 32.0  | 33.0  | 18.0  | 27.5  | 0.8    |
|                |       |       |       |       |        |                |       |       |       |       |        |

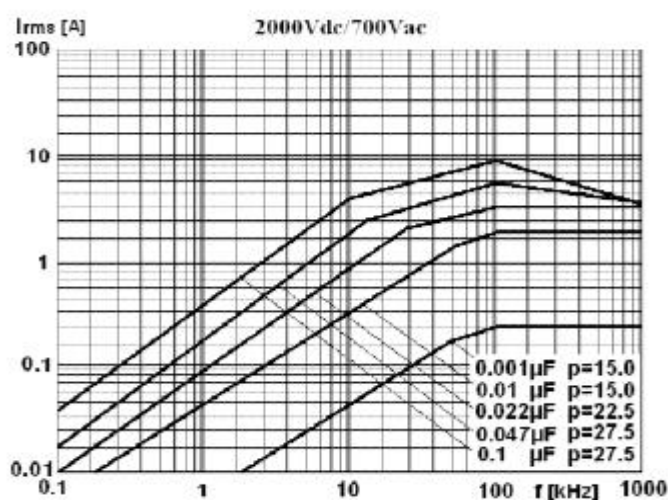
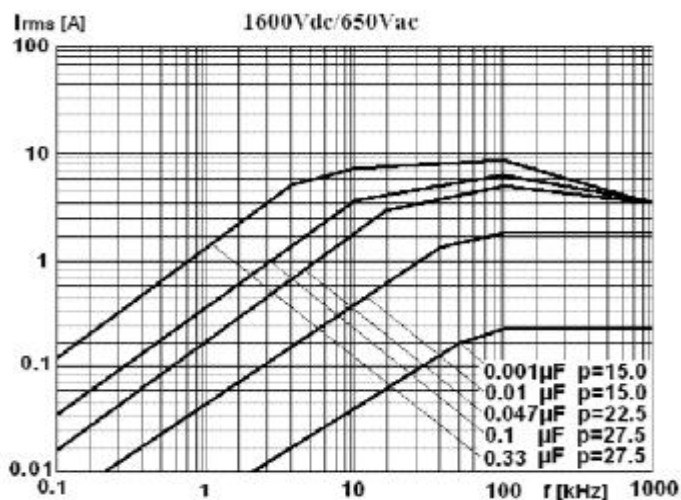
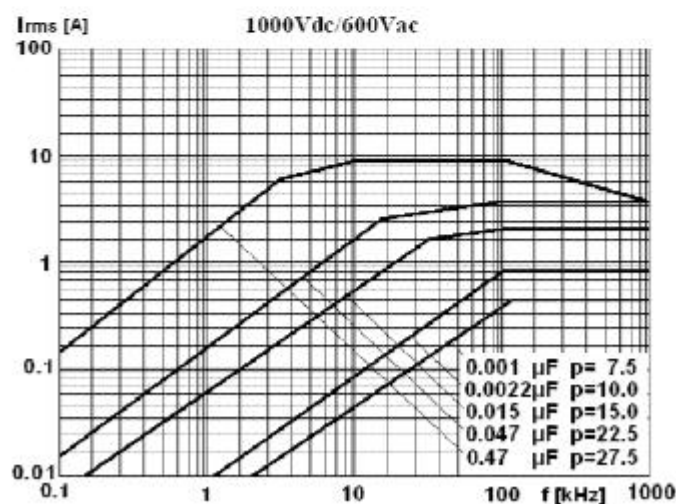
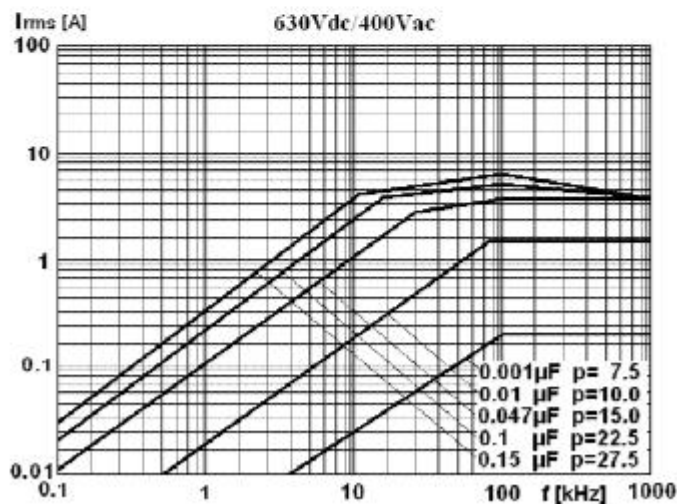
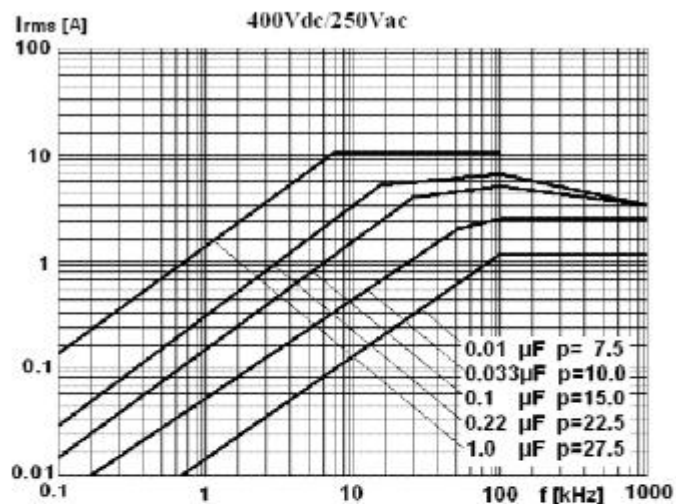
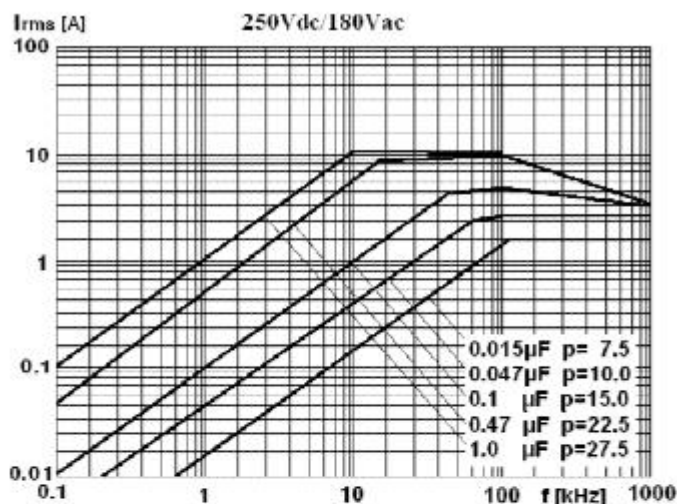
## ■ MAX. VOLTAGE(Vr.m.s) VERSUS FREQUENCY



Note: sinusoidal wave-form, environment temperature  $\leq 85^{\circ}\text{C}$ , internal temperature rise  $\Delta T = 10^{\circ}\text{C}$ , p (pitch) in mm..



## ■ MAX. CURRENT( $I_{r.m.s}$ ) VERSUS FREQUENCY



Note: sinusoidal wave-form, environment temperature  $\leq 85^{\circ}C$ , internal temperature rise  $\Delta T = 10^{\circ}C$ , p (pitch) in mm.

| NO: | 项目      | 性能要求                                                                        | 试验方法 GB/T 10190(IEC 60384-16)                                                                                                                                        |
|-----|---------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01  | 适用温度范围  | -40 — +105℃                                                                 |                                                                                                                                                                      |
| 02  | 额定电压 UR | 400VDC/630VDC/1000VDC/1250VDC<br>/1600VDC/2000VDC/3000VDC                   |                                                                                                                                                                      |
| 03  | 电容量范围   | 0.00022uF~3.9uF                                                             |                                                                                                                                                                      |
| 04  | 电容量允许偏差 | ±2%(G), ±3%(H), ±5%(J), ±10%(K)                                             | Ref. item 4. 2. 2 1kHz                                                                                                                                               |
| 05  | 损耗角正切   | $\tan\delta \leq 0.0010$ (20℃, 1KHz, 0.1V)                                  | Ref. item 4. 2. 3                                                                                                                                                    |
| 06  | 耐 电 压   | 1. 6UR, 5s 无击穿或飞弧                                                           | Ref. item 4. 2. 1 Ref. item 4. 3<br>Ref. item 4. 4<br>焊槽法 Tb, 方法 1A<br>(漏电流设定为 20mA)                                                                                 |
| 07  | 绝缘电阻    | IR ≥ 50000MΩ, CN ≤ 0.33μF;<br>IR ≥ 30000, CN > 0.33μF;<br>(100V, 20℃, 1min) | Ref. item 4. 2. 4<br>测试电压设置: 10V ≤ UR < 100V,<br>测试电压为 10V; 100V ≤ UR < 500V,<br>测试电压为 100V; UR ≥ 500V,<br>测试电压为 500V (20℃, 1min)                                    |
| 08  | 可 焊 性   | 镀锡良好                                                                        | Ref. item 4. 5<br>焊槽法 Ta, 方法 1<br>焊料温度: 235±2℃<br>浸渍时间: 2.0±0.5s                                                                                                     |
| 09  | 初始测量    | 电容量 损耗角正切: 依据 NO. 5                                                         |                                                                                                                                                                      |
|     | 引出端强度   | 外观无可见损伤                                                                     | Ref. item 4. 3<br>拉力:<br>0.5 ≤ φ d ≤ 0.8mm, 10N<br>.1. 0 ≤ φ d ≤ 1.2mm, 20N<br>弯曲试验 Ub:<br>弯力:<br>0.5 ≤ φ d ≤ 0.8mm, 5N<br>.1. 0 ≤ φ d ≤ 1.2mm, 10N<br>每个方向上连续进行二次弯曲 |
|     |         |                                                                             | Ref. item 4. 4                                                                                                                                                       |

|    |        |      |                                                                                                                                                                                                                                              |                                                                   |
|----|--------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
|    | 耐焊接热   |      | 外观无可见损伤, 标志清晰                                                                                                                                                                                                                                | 焊槽法 Tb, 方法 1A<br>260±5℃, 10±1s                                    |
|    | 最后测量   |      | 电容量: $\Delta C/C \leq \text{初始测量值的} \pm 2\%$<br>损耗角正切增加:<br>$\Delta \tan \delta \leq 0.0020$ (10kHz, $C \leq 1.0 \mu F$ )<br>$\Delta \tan \delta \leq 0.0020$ (1kHz, $C > 1 \mu F$ )<br>绝缘电阻 IR: $\geq \text{额定值的} 50\%$                     |                                                                   |
| 10 | 初始测量   |      | 电容量 损耗角正切: 依据 NO. 5                                                                                                                                                                                                                          |                                                                   |
|    | 温度快速变化 |      | 外观无可见损伤                                                                                                                                                                                                                                      | Ref. item 4. 6<br>Q A = -40℃, Q B = +105℃<br>5 次循环, 持续时间: t=30min |
|    | 最后测量   |      | 外观无可见损伤, 标志清晰,<br>电容量: $\Delta C/C \leq \text{初始测量值的} \pm 5\%$ ,<br>损耗角正切增加:<br>$\Delta \tan \delta \leq 0.0020$ (10kHz, $C \leq 1.0 \mu F$ )<br>$\Delta \tan \delta \leq 0.0020$ (1kHz, $C > 1 \mu F$ )<br>绝缘电阻 IR: $\geq \text{额定值的} 50\%$ |                                                                   |
| 11 | 气候顺序   | 初始测量 | 电容量 损耗角正切: 依据 NO. 5                                                                                                                                                                                                                          |                                                                   |
|    |        | 干 热  |                                                                                                                                                                                                                                              | Ref. item 4. 10. 2<br>+105℃, 16h                                  |
|    |        | 循环湿热 |                                                                                                                                                                                                                                              | Ref. item 4. 10. 3<br>试验 Db, 严酷度 b,<br>第一次循环                      |
|    |        | 寒 冷  |                                                                                                                                                                                                                                              | Ref. item 4. 10. 4<br>-40℃, 2h                                    |
|    |        | 循环湿热 | 在试验结束后, 施加 UR 1 分钟                                                                                                                                                                                                                           | Ref. item 4. 10. 6<br>试验 Db<br>严酷度 b,<br>其余循环                     |
|    |        |      | 外观无可见损伤, 标志清晰,<br>电容量变化: $\Delta C/C \leq \text{初始测量值的} \pm 3\%$ ,                                                                                                                                                                           |                                                                   |



|    |          |                                                                                                                                                                  |                                                                                                                                                                                       |
|----|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | 最后测量     | 损耗角正切增加：<br>$\Delta \tan \delta \leq 0.0030$ (10kHz, $C \leq 1.0 \mu F$ )<br>$\Delta \tan \delta \leq 0.0030$ (1kHz, $C > 1 \mu F$ )<br>绝缘电阻 IR: $\geq$ 额定值的 50% |                                                                                                                                                                                       |
| 12 | 稳态湿热     | 外观无明显鼓胀, 标志清晰,<br>电容量变化: $\Delta C/C \leq$ 初始测量值的 $\pm 2\%$ ,<br>损耗角正切增加:<br>$\Delta \tan \delta \leq 0.0010$ (1kHz)<br>绝缘电阻 IR: $\geq$ 额定值的 90%                 | Ref. item 4. 11<br>温度: 85°C<br>湿度: 85%RH<br>持续时间: 48H                                                                                                                                 |
| 13 | 耐 久 性    | 外观无可见损伤, 标志清晰, 电容量变化:<br>$\Delta C/C \leq$ 初始测量值的 $\pm 5\%$ ,<br>损耗角正切增加: $\Delta \tan \delta \leq 0.0020$ (10kHz)<br>绝缘电阻 IR: $\geq$ 额定值的 50%                   | Ref. item 4. 12<br>+85°C, 1000h<br>施加电压: 1.25 倍额定电压                                                                                                                                   |
| 14 | 随温度而定的特性 | 在 b, d, f 点进行电容量测量:<br>在下限类别温度 -40°C 时的特性:<br>$0 \leq (C_b - C_d) / C_d \leq +3\%$<br>在上限类别温度 110°C 时的特性:<br>$-4\% \leq (C_f - C_d) / C_d \leq 0$                | Ref. item 4. 2. 6<br>充电电压为额定电压<br>静态法, 电容器依次保持在下述<br>每个温度: a. (20 $\pm$ 2) °C,<br>b. (-40 $\pm$ 3) °C, d. (20 $\pm$ 2) °C,<br>f. (110 $\pm$ 2) °C, g. (20 $\pm$ 2) °C                 |
| 15 | 充电和放电    | 电容量: $\Delta C/C \leq$ 初始测量值的 $\pm 5\%$<br>损耗角正切增加:<br>$\Delta \tan \delta \leq 0.0030$ (10KHz0.1V)<br>耐电压: 1.6UR<br>绝缘电阻 IR: $\geq$ 额定值的 50%                    | Ref. item 4. 13<br>次 数: 10000 次<br>充电持续时间: 0.5s<br>放电持续时间: 0.5s<br>充电电压为额定电压<br>充电电阻: $220/CR$ ( $\Omega$ )<br>放电电阻: $10/CR$ ( $\Omega$ ) 或 $20\Omega$ (取较大者)<br>CR 为标称电容量( $\mu F$ ) |
|    |          | 外观无炸裂, 无燃烧。<br>电容量变化:<br>$\Delta C/C \leq$ 初测值的 $\pm 5\%$                                                                                                        |                                                                                                                                                                                       |

|    |       |                                                                                                                                                                                                             |                                                                                                                                                                 |
|----|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 | 脉冲电压  | 损耗角正切增加:<br>$\Delta \tan \delta \leq 0.0020$ (10kHz)<br>绝缘电阻 IR: $\geq$ 额定值的 50%<br>耐电压: 1.6U R                                                                                                             | 次数: 24 次<br>脉冲电压: 1.8UR                                                                                                                                         |
| 17 | 纹波电流  | 外观无炸裂, 无燃烧<br>电容量变化<br>$\Delta C/C \leq$ 初测值的 $\pm 10\%$ 损耗角正切增加<br>$\Delta \tan \delta \leq 0.0030$ (10kHz, 0.1V)<br>$\Delta \tan \delta \leq 0.0030$ (1kHz, 1V)<br>绝缘电阻 IR: $\geq$ 额定值的 50%<br>耐电压: 1.6UR | 试验温度: 常温<br>纹波电流:<br>10A 直流偏压=额定电压-纹波电压<br>试验时间: 5 小时<br>试验频率: 100KHZ                                                                                           |
| 18 | 阻燃性试验 | 离开火焰后, 任一电容器继续燃烧的时间<br>不超过 30S, 且电容器燃烧的滴落物不应<br>引燃在其下铺设的棉纸                                                                                                                                                  | IEC695-2-2<br>针焰法, 耐燃性类别 C, 在火焰上暴露一<br>次<br>电容器体积 (立方毫米) 在火焰上暴露<br>时间<br>$V \geq 250$ 5S<br>$250 < V \leq 500$ 10S<br>$500 < V \leq 1750$ 20S<br>$V > 1750$ 30S |