

MP (CD299型)

- ◎ 高纹波、高稳定性
Highly ripple ,high reliability.
- ◎ 低等效串联电阻
Low equivalent series resistance ESR.
- ◎ 加纹波电流5000小时寿命
Load life with ripple current:5000 hours.
- ◎ RoHS指令已对应完毕。
Adapted to the RoHS directive.

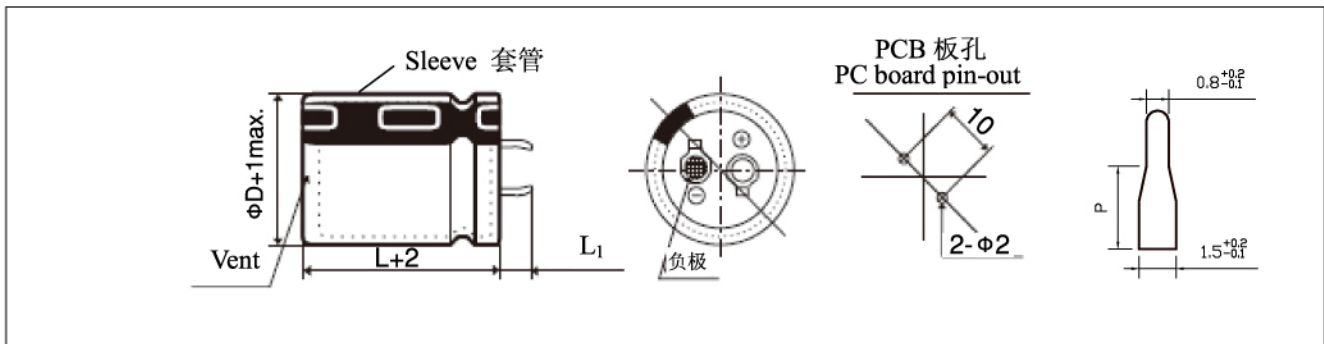


主要技术性能 Specifications

| 项目 Items | 特性 Performance Characteristics | | | | | | | | | | | |
|---|---|------|------|------|------|------|--------------|---------|------|-----|-----|-----|
| 使用温度范围 Operating Temperature Range | -40℃ ~+ 105℃ | | | | | | -25℃ ~ +105℃ | | | | | |
| 额定电压范围 Rated voltage Range | 10 ~ 100 V | | | | | | 200 ~ 450 V | | | | | |
| 标称电容量范围 Nominal capacitance range | 100 ~ 33000 µ F | | | | | | | | | | | |
| 标称电容量允许偏差 Capacitance Tolerance | ± 20%(20℃, 120Hz) | | | | | | | | | | | |
| 漏电流 Leakage Current | $I \leq 3 \sqrt{CV} (\mu A)$ 5分钟 (at 20℃, after 5 minutes) | | | | | | | | | | | |
| 损耗角正切 (tg δ) Dissipation Factor (Max) (+20℃, 120Hz) | UR (V) | 10 | 16 | 25 | 35 | 50 | 63~100 | 200~400 | 450 | | | |
| | tg δ | 0.60 | 0.45 | 0.30 | 0.25 | 0.20 | 0.15 | 0.15 | 0.20 | | | |
| 温度特性 Temperature characteristics (Impedance ratio at 120Hz) | UR (V) | 10 | 16 | 25 | 25 | 35 | 50 | 63~100 | 200 | 250 | 400 | 450 |
| | Z-25℃/Z+20℃ | 6 | 6 | 6 | 6 | 6 | 4 | 3 | 8 | 8 | 8 | 8 |
| | Z-40℃/Z+20℃ | 15 | 15 | 15 | 10 | 10 | 6 | 6 | — | — | — | — |
| Load Life 耐久性 | +105℃,施加带额定纹波电流的额定电压5000小时, 恢复16小时后: After applying rated voltage with specified ripple current for 5000 hours at +105℃,and then resumed 16 hours. 电容量变化率 capacitance change : ± 20%初始测量值以内 Initial measured value. 漏电流 Leakage current : ≤ 初始规定值 ≤ the Initial measured value. 损耗角正切值Dissipation factor : ≤ 2倍初始规定值 ≤ 2times Initial specified Value. | | | | | | | | | | | |
| 高温贮存 Shelf life | +105℃,1000小时贮存后,加额定工作电压处理30分钟,恢复16小时后: After storage for 1000 hours at +105℃,U _R to be applied for 30 minutes and then resumed 16 hours. 电容量变化率 capacitance change : ± 20%初始测量值以内 Initial measured value. 漏电流 Leakage current : ≤ 初始规定值 ≤ the Initial measured value. 损耗角正切值Dissipation factor : ≤ 1.5倍初始规定值 ≤ 1.5times Initial specified Value. | | | | | | | | | | | |

外形图 Case table

单位Unit: mm



■ 尺寸 Dimensions

| Voltage (Code) | | 10V(1A) | | | 16V(1C) | | | 25V(1E) | | |
|----------------|------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current |
| 4700 | 470 | | | | | | | 22 x 30 | 57 | 1.6 |
| | | | | | | | | 25 x 25 | 57 | 1.6 |
| 6800 | 682 | 22 x 25 | 78 | 1.4 | 22 x 30 | 49 | 1.8 | 25 x 30 | 43 | 1.9 |
| 10000 | 103 | 22 x 30 | 56 | 1.8 | 25 x 30 | 36 | 2.2 | 25 x 40 | 32 | 2.5 |
| 15000 | 153 | 22 x 40 | 39 | 2.3 | 25 x 40 | 26 | 2.8 | 30 x 40 | 23 | 3.2 |
| 22000 | 223 | 30 x 35 | 28 | 3.0 | 30 x 40 | 18 | 3.5 | | | |
| 33000 | 333 | 30 x 45 | 20 | 3.9 | | | | | | |

| Voltage (Code) | | 35V(1V) | | | 50V(1H) | | | 63V(1J) | | |
|----------------|------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current |
| 1000 | 102 | | | | | | | 22 x 25 | 159 | 1.0 |
| 1500 | 152 | | | | | | | 22 x 35 | 106 | 1.4 |
| 2200 | 222 | 22 x 25 | 90 | 1.1 | 22 x 35 | 90 | 1.4 | 25 x 35 | 72 | 1.7 |
| | | | | | | | | 30 x 30 | 85 | 1.8 |
| 3300 | 332 | 22 x 30 | 60 | 1.5 | 25 x 35 | 60 | 1.8 | 30 x 40 | 56 | 2.3 |
| | | 25 x 25 | 60 | 1.5 | | | | | | |
| 4700 | 472 | 22 x 40 | 48 | 1.9 | 30 x 35 | 45 | 2.2 | 35 x 35 | 45 | 2.7 |
| 6800 | 682 | 25 x 40 | 37 | 2.3 | 30 x 50 | 35 | 2.9 | 35 x 50 | 31 | 3.6 |
| 10000 | 103 | 30 x 40 | 28 | 2.9 | 35 x 45 | 26 | 3.6 | | | |
| 15000 | 153 | 35 x 40 | 20 | 3.8 | | | | | | |
| 18000 | 183 | 35 x 45 | 18 | 4.3 | | | | | | |

| Voltage (Code) | | 80V(1K) | | | 100V(2A) | | | 200V(2D) | | |
|----------------|------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current |
| 220 | 221 | | | | | | | 22 x 30 | 700 | 0.96 |
| 330 | 331 | | | | | | | 22 x 40 | 470 | 1.3 |
| 470 | 471 | | | | | | | 25 x 40 | 330 | 1.7 |
| | | | | | | | | 30 x 30 | 330 | 1.7 |
| 560 | 561 | | | | 25 x 25 | 190 | 1.0 | | | |
| 680 | 681 | | | | 22 x 35 | 156 | 1.2 | 30 x 40 | 230 | 2.2 |
| 1000 | 102 | 25 x 25 | 133 | 1.3 | 25 x 35 | 106 | 1.4 | 35 x 45 | 160 | 3.1 |
| | | | | | 30 x 30 | 106 | 1.5 | | | |
| 1200 | 122 | 30 x 25 | 110 | 1.5 | | | | | | |
| 1500 | 152 | 25 x 35 | 89 | 1.8 | 30 x 40 | 70 | 1.9 | 35 x 50 | 110 | 3.9 |
| 2200 | 222 | 30 x 35 | 60 | 2.0 | 30 x 50 | 60 | 2.3 | | | |
| 3300 | 332 | 35 x 35 | 48 | 2.8 | 35 x 50 | 40 | 3.0 | | | |
| 4700 | 472 | 35 x 45 | 34 | 3.4 | | | | | | |

| Voltage (Code) | | 250V(2E) | | | 400V(2G) | | | 450V(2W) | | |
|----------------|------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------|
| Cap.(μ F) | Code | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current | Case Size | Impedance | Ripple Current |
| 100 | 101 | | | | 25 x 30 | 1090 | 0.7 | 22 x 45 | 1600 | 0.75 |
| | | | | | | | | 30 x 30 | 1600 | 0.76 |
| 150 | 151 | | | | 25 x 40 | 730 | 0.95 | 25 x 45 | 1070 | 1.0 |
| | | | | | 30 x 30 | 730 | 0.94 | 30 x 35 | 1070 | 0.99 |
| 220 | 221 | 25 x 30 | 700 | 1.0 | 30 x 40 | 500 | 1.3 | 30 x 45 | 730 | 1.3 |
| | | | | | 35 x 30 | 500 | 1.3 | 35 x 35 | 730 | 1.3 |
| 330 | 331 | 25 x 40 | 470 | 1.4 | 30 x 50 | 330 | 1.7 | 35 x 50 | 490 | 1.8 |
| | | 30 x 30 | 470 | 1.4 | 35 x 40 | 330 | 1.7 | | | |
| 390 | 391 | | | | 35 x 45 | 280 | 1.9 | 35 x 50 | 410 | 2.0 |
| 470 | 471 | 30 x 35 | 330 | 1.8 | 35 x 50 | 240 | 2.2 | | | |
| 680 | 681 | 30 x 45 | 230 | 2.3 | | | | | | |
| 1000 | 102 | 35 x 45 | 160 | 3.1 | | | | | | |

Maximum Allowable Ripple Current (A rms) at 105°C 120Hz.
Maximum Impedance (m Ω) at 20°C 20KHz.