

SM series

NEW

Features

- ◆ High ripple current capability , 2000 hours at 105°C.
- ◆ This series has specification of vent operation in overvoltage situation .
- ◆ RoHS Compliant .

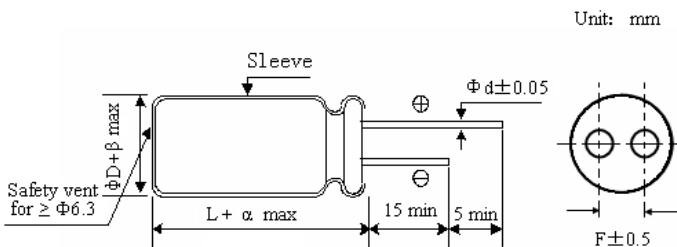


Specifications

| Item | Performance Characteristics | | |
|--|---|--------------------------------------|-----|
| Temperature Range | -25~+105°C | | |
| Rated Voltage Range | 200V,400Vdc | | |
| Capacitance Range | 22~330µF | | |
| Capacitance Tolerance | ±20% (120Hz, +20°C) | | |
| Leakage Current (+20°C,max.) | I≤0.02CV+30 (µA) After 2 minutes, whichever is greater measured with rated working voltage applied | | |
| Dissipation Factor(tgδ) 120Hz, +20°C | Working Voltage(Vdc) | 200 | 400 |
| | D.F.(%)max. | 15 | 20 |
| Low Temperature Characteristics(120Hz) | Impedance ratio max. | | |
| | Working Voltage(Vdc) | 200 | 400 |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C | | |
| | Capacitance Change | ≤±20% of the initial value | |
| | D.F.(tgδ) | ≤200% of the initial specified value | |
| Shelf Life | After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C. | | |
| | Capacitance Change | ≤±20% of the initial value | |
| | D.F.(tgδ) | ≤200% of the initial specified value | |
| Others | JISC-5101(IEC 60384) | | |

Frequency Multipliers

Diagram of Dimensions



| (µF) \ Hz | 50 | 120 | 300 | 1K | ≥10K |
|-----------|------|------|------|------|------|
| 22~220 | 0.80 | 1.00 | 1.25 | 1.40 | 1.60 |
| 270~330 | 0.90 | 1.00 | 1.10 | 1.13 | 1.15 |

| | | |
|----|----------------|----------------|
| ΦD | 16 | 18 |
| F | 7.5 | 7.5 |
| Φd | 0.8 | 0.8 |
| α | (L < 20) + 1.5 | (L ≥ 20) + 2.0 |
| β | (D < 20) + 0.5 | (D ≥ 20) + 1.0 |

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Standard Ratings

| Voltage | 200 | | 400 | |
|---------|-----------|----------------|-----------|----------------|
| Cap(μF) | Case Size | Ripple Current | Case Size | Ripple Current |
| 22 | | | 16×25 | 180 |
| 33 | | | 16×25 | 220 |
| 39 | | | 16×30 | 270 |
| 39 | | | 18×25 | 270 |
| 47 | | | 16×30 | 300 |
| 47 | | | 18×25 | 300 |
| 47 | | | 16×40 | 360 |
| 56 | | | 18×30 | 350 |
| 56 | | | 18×35 | 420 |
| 68 | | | 18×40 | 460 |
| 82 | | | 18×45 | 520 |
| 100 | 16×25 | 425 | | |
| 120 | 16×30 | 500 | | |
| 120 | 18×25 | 475 | | |
| 150 | 16×30 | 560 | | |
| 150 | 18×25 | 530 | | |
| 180 | 16×40 | 645 | | |
| 180 | 18×30 | 630 | | |
| 220 | 18×40 | 735 | | |
| 270 | 18×45 | 830 | | |
| 330 | 18×45 | 920 | | |

Max Allowable Ripple Current (mA,rms) at 105°C 120Hz,Case Size ΦD×L(mm).

◆DC OVERVOLTAGE TEST CONDITIONS

The vent will operate and the capacitor shall become an open circuit without burning materials when the follow excess DC voltage is applied.

● Test conditions

| Rated voltage | Current limit | Test DC voltage |
|---------------|---------------|-----------------|
| 200V dc | 4A | 300/ 375V dc |
| 400V dc | 2A | 500/600V dc |

● Test circuit

