

SRM Series

- Downsized from current standard SRE series
- 5mm height
- Endurance : 1,000 hours at 85°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

SRM

↓
Downsized
SRE P135

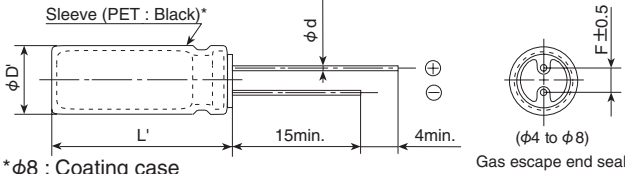


SPECIFICATIONS

| Items | Characteristics | | | | | | | | |
|--|--|--------------------------------------|------|------|------|------|------|------|------------------|
| Category | -40 to +85°C | | | | | | | | |
| Temperature Range | | | | | | | | | |
| Rated Voltage Range | 4 to 50V _{dc} | | | | | | | | |
| Capacitance Tolerance | ±20% (M) (at 20°C, 120Hz) | | | | | | | | |
| Leakage Current | I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes) | | | | | | | | |
| Dissipation Factor (tan δ) | Rated voltage (V _{dc}) | 4V | 6.3V | 10V | 16V | 25V | 35V | 50V | |
| | tan δ (Max.) | 0.40 | 0.38 | 0.30 | 0.23 | 0.17 | 0.15 | 0.13 | (at 20°C, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 4V | 6.3V | 10V | 16V | 25V | 35V | 50V | |
| | Z(-25°C)/Z(+20°C) | 7 | 4 | 3 | 2 | 2 | 2 | 2 | |
| | Z(-40°C)/Z(+20°C) | 15 | 8 | 8 | 6 | 4 | 3 | 3 | (at 120Hz) |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 1,000 hours at 85°C. | | | | | | | | |
| | Capacitance change | ≤ ±20% of the initial value | | | | | | | |
| | D.F. (tan δ) | ≤200% of the initial specified value | | | | | | | |
| | Leakage current | ≤The initial specified value | | | | | | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. | | | | | | | | |
| | Capacitance change | ≤ ±20% of the initial value | | | | | | | |
| | D.F. (tan δ) | ≤200% of the initial specified value | | | | | | | |
| | Leakage current | ≤The initial specified value | | | | | | | |

DIMENSIONS [mm]

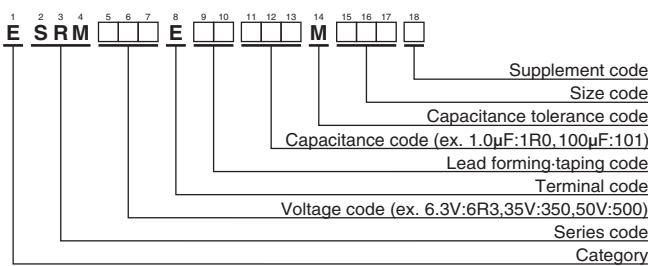
- Terminal Code : E



| φD | 4 | 5 | 6.3 | 8 |
|-----|------------|------|------|------|
| φd | 0.45 | 0.45 | 0.45 | 0.45 |
| F | 1.5 | 2.0 | 2.5 | 2.5 |
| φD' | φD+0.5max. | | | |
| L' | L+1.0max. | | | |

*φ8 : Coating case

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

| Capacitance(μF) | Frequency(Hz) | 120 | 300 | 1k | 10k | 100k |
|-----------------|---------------|------|------|------|------|------|
| 1 | | 1.00 | 1.25 | 1.50 | 1.75 | 1.80 |
| 2.2 to 10 | | 1.00 | 1.15 | 1.30 | 1.40 | 1.50 |
| 22 to 330 | | 1.00 | 1.03 | 1.05 | 1.08 | 1.08 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.

When long life performance is required in actual use, the rms ripple current has to be reduced.

Please refer to "Product code guide (radial lead type)"

STANDARD RATINGS

| VV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (mArms/85°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|--|--------------------|
| 4 | 100 | 5 × 5 | 0.40 | 55 | ESRM4R0E□□101ME05D |
| | 220 | 6.3 × 5 | 0.40 | 88 | ESRM4R0E□□221MF05D |
| 6.3 | 22 | 4 × 5 | 0.38 | 22 | ESRM6R3E□□220MD05D |
| | 47 | 4 × 5 | 0.38 | 40 | ESRM6R3E□□470MD05D |
| 10 | 330 | 8 × 5 | 0.38 | 141 | ESRM6R3E□□331MH05G |
| | 33 | 4 × 5 | 0.30 | 36 | ESRM100E□□330MD05D |
| 16 | 100 | 6.3 × 5 | 0.30 | 78 | ESRM100E□□101MF05D |
| | 220 | 8 × 5 | 0.30 | 148 | ESRM100E□□221MH05G |
| 25 | 10 | 4 × 5 | 0.23 | 18 | ESRM160E□□100MD05D |
| | 22 | 4 × 5 | 0.23 | 33 | ESRM160E□□220MD05D |
| | 33 | 5 × 5 | 0.23 | 47 | ESRM160E□□330ME05D |
| | 47 | 5 × 5 | 0.23 | 55 | ESRM160E□□470ME05D |
| 35 | 4.7 | 4 × 5 | 0.17 | 13 | ESRM250E□□4R7MD05D |
| | 10 | 4 × 5 | 0.17 | 25 | ESRM250E□□100MD05D |
| 50 | 22 | 5 × 5 | 0.17 | 41 | ESRM250E□□220ME05D |
| | 47 | 6.3 × 5 | 0.17 | 63 | ESRM250E□□470MF05D |
| | 100 | 8 × 5 | 0.17 | 116 | ESRM250E□□101MH05G |
| 50 | 3.3 | 4 × 5 | 0.15 | 12 | ESRM350E□□3R3MD05D |
| | 33 | 6.3 × 5 | 0.15 | 56 | ESRM350E□□330MF05D |
| | 47 | 8 × 5 | 0.15 | 85 | ESRM350E□□470MH05G |
| | 1.0 | 4 × 5 | 0.13 | 7.2 | ESRM500E□□1R0MD05D |
| 50 | 2.2 | 4 × 5 | 0.13 | 10 | ESRM500E□□2R2MD05D |
| | 3.3 | 4 × 5 | 0.13 | 14 | ESRM500E□□3R3MD05D |
| | 4.7 | 4 × 5 | 0.13 | 19 | ESRM500E□□4R7MD05D |
| | 10 | 5 × 5 | 0.13 | 31 | ESRM500E□□100ME05D |
| | 22 | 6.3 × 5 | 0.13 | 49 | ESRM500E□□220MF05D |
| 33 | 8 × 5 | 0.13 | 76 | ESRM500E□□330MH05G | |

□□ : Enter the appropriate lead forming or taping code.