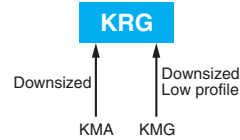


KRG Series

- Low profile : $\phi 4 \times 7\text{mm}$ to $\phi 18 \times 25\text{mm}$
- Endurance : 1,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

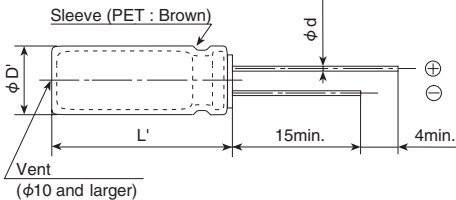


SPECIFICATIONS

| Items | Characteristics | | | | | | |
|--|---|--------------------------------------|------|------|--------------------------------------|------|------|
| Category | -55 to +105°C | | | | | | |
| Temperature Range | -55 to +105°C | | | | | | |
| Rated Voltage Range | 6.3 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}) | 6.3V | 10V | 16V | 25V | 35V | 50V |
| | tan δ (Max.) | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 |
| | When nominal capacitance exceeds 1,000μF, add 0.03 to the value above for each 1,000μF increase. (at 20°C, 120Hz) | | | | | | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 6.3V | 10V | 16V | 25V | 35V | 50V |
| | Z(-25°C)/Z(+20°C) | 5 | 4 | 3 | 2 | 2 | 2 |
| | Z(-40°C)/Z(+20°C) | 10 | 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 105°C. | | | | | | |
| | Rated voltage | 6.3 to 16V _{dc} | | | 25 to 50V _{dc} | | |
| | Capacitance change | ≤ ±25% of the initial value | | | ≤ ±20% of the initial value | | |
| | D.F. (tan δ) | ≤200% of the initial specified value | | | ≤200% of the initial specified value | | |
| | Leakage current | ≤ The initial specified value | | | ≤ The initial specified value | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 105°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. | | | | | | |
| | Rated voltage | 6.3 to 16V _{dc} | | | 25 to 50V _{dc} | | |
| | Capacitance change | ≤ ±25% of the initial value | | | ≤ ±20% of the initial value | | |
| | D.F. (tan δ) | ≤200% of the initial specified value | | | ≤200% of the initial specified value | | |
| | Leakage current | ≤ The initial specified value | | | ≤ The initial specified value | | |

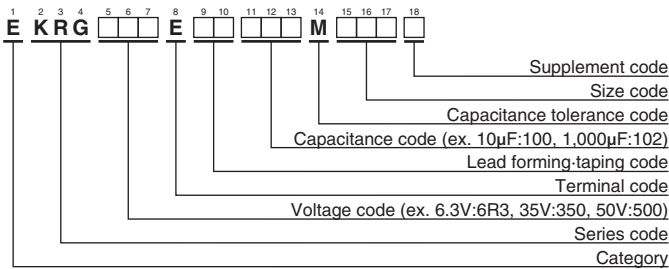
DIMENSIONS [mm]

Terminal Code : E



| φD | 4 | 5 | 6.3 | 10 & 12.5 | 16 & 18 |
|-----|----------------------------|------|------|-----------|---------|
| φd | 0.45 | 0.45 | 0.45 | 0.6 | 0.8 |
| F | 1.5 | 2.0 | 2.5 | 5.0 | 7.5 |
| φD' | φD+0.5max. | | | | |
| L' | L+1.5max. (7L : L+1.0max.) | | | | |

PART NUMBERING SYSTEM



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

KRG Series

◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (mA _{rms} /105°C, 120Hz) | Part No. | WV (V _{dc}) | Cap (μF) | Case size φD×L(mm) | tan δ | Rated ripple current (mA _{rms} /105°C, 120Hz) | Part No. |
|-----------------------|----------|--------------------|-------|--|--------------------|-----------------------|-----------|--------------------|--------------------|--|--------------------|
| 6.3 | 47 | 5 × 7 | 0.28 | 50 | EKRG6R3E□□470ME07D | 25 | 330 | 10 × 9 | 0.16 | 270 | EKRG250E□□331MJ09S |
| | 1,000 | 10 × 9 | 0.28 | 365 | EKRG6R3E□□102MJ09S | | 470 | 10 × 12.5 | 0.16 | 370 | EKRG250E□□471MJC5S |
| | 4,700 | 16 × 15 | 0.37 | 1,010 | EKRG6R3E□□472ML15S | | 1,000 | 12.5 × 15 | 0.16 | 590 | EKRG250E□□102MK15S |
| | 6,800 | 18 × 15 | 0.43 | 1,190 | EKRG6R3E□□682MM15S | | 2,200 | 18 × 15 | 0.19 | 970 | EKRG250E□□222MM15S |
| | 10,000 | 18 × 20 | 0.55 | 1,440 | EKRG6R3E□□103MM20S | | 3,300 | 18 × 20 | 0.22 | 1,220 | EKRG250E□□332MM20S |
| 10 | 22 | 4 × 7 | 0.24 | 35 | EKRG100E□□220MD07D | 35 | 4,700 | 18 × 25 | 0.25 | 1,470 | EKRG250E□□472MM25S |
| | 100 | 6.3 × 7 | 0.24 | 80 | EKRG100E□□101MF07D | | 10 | 5 × 7 | 0.14 | 36 | EKRG350E□□100ME07D |
| | 1,000 | 10 × 12.5 | 0.24 | 445 | EKRG100E□□102MJC5S | | 22 | 6.3 × 7 | 0.14 | 57 | EKRG350E□□220MF07D |
| | 2,200 | 12.5 × 15 | 0.27 | 690 | EKRG100E□□222MK15S | | 33 | 6.3 × 7 | 0.14 | 64 | EKRG350E□□330MF07D |
| | 3,300 | 16 × 15 | 0.30 | 940 | EKRG100E□□332ML15S | | 220 | 10 × 9 | 0.14 | 235 | EKRG350E□□221MJ09S |
| | 4,700 | 18 × 15 | 0.33 | 1,120 | EKRG100E□□472MM15S | | 330 | 10 × 12.5 | 0.14 | 340 | EKRG350E□□331MJC5S |
| | 6,800 | 18 × 20 | 0.39 | 1,330 | EKRG100E□□682MM20S | | 470 | 12.5 × 13 | 0.14 | 415 | EKRG350E□□471MK13S |
| | 10,000 | 18 × 25 | 0.51 | 1,700 | EKRG100E□□103MM25S | | 1,000 | 16 × 15 | 0.14 | 720 | EKRG350E□□102ML15S |
| 16 | 33 | 5 × 7 | 0.20 | 53 | EKRG160E□□330ME07D | 50 | 2,200 | 18 × 20 | 0.17 | 1,110 | EKRG350E□□222MM20S |
| | 47 | 6.3 × 7 | 0.20 | 68 | EKRG160E□□470MF07D | | 1.0 | 4 × 7 | 0.12 | 10 | EKRG500E□□1R0MD07D |
| | 100 | 6.3 × 7 | 0.20 | 97 | EKRG160E□□101MF07D | | 2.2 | 4 × 7 | 0.12 | 15 | EKRG500E□□2R2MD07D |
| | 470 | 10 × 9 | 0.20 | 290 | EKRG160E□□471MJ09S | | 3.3 | 4 × 7 | 0.12 | 18 | EKRG500E□□3R3MD07D |
| | 1,000 | 12.5 × 13 | 0.20 | 515 | EKRG160E□□102MK13S | | 4.7 | 4 × 7 | 0.12 | 25 | EKRG500E□□4R7MD07D |
| | 2,200 | 16 × 15 | 0.23 | 830 | EKRG160E□□222ML15S | | 10 | 6.3 × 7 | 0.12 | 44 | EKRG500E□□100MF07D |
| | 3,300 | 18 × 15 | 0.26 | 1,050 | EKRG160E□□332MM15S | | 22 | 6.3 × 7 | 0.12 | 57 | EKRG500E□□220MF07D |
| | 4,700 | 18 × 20 | 0.29 | 1,260 | EKRG160E□□472MM20S | | 100 | 10 × 9 | 0.12 | 170 | EKRG500E□□101MJ09S |
| 6,800 | 18 × 25 | 0.35 | 1,560 | EKRG160E□□682MM25S | 220 | 10 × 12.5 | 0.12 | 290 | EKRG500E□□221MJC5S | | |
| 25 | 10 | 4 × 7 | 0.16 | 30 | EKRG250E□□100MD07D | 330 | 12.5 × 13 | 0.12 | 370 | EKRG500E□□331MK13S | |
| | 22 | 5 × 7 | 0.16 | 46 | EKRG250E□□220ME07D | 470 | 16 × 15 | 0.12 | 535 | EKRG500E□□471ML15S | |
| | 33 | 6.3 × 7 | 0.16 | 63 | EKRG250E□□330MF07D | 1,000 | 18 × 20 | 0.12 | 830 | EKRG500E□□102MM20S | |
| | 47 | 6.3 × 7 | 0.16 | 71 | EKRG250E□□470MF07D | | | | | | |

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

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Capacitance(μF) | Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 100k |
|-----------------|---------------|------|------|------|------|------|------|
| to 4.7 | | 0.65 | 1.00 | 1.35 | 1.75 | 2.30 | 2.50 |
| 10 to 47 | | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 1.80 |
| 100 to 1,000 | | 0.80 | 1.00 | 1.15 | 1.30 | 1.40 | 1.50 |
| 2,200 to | | 0.85 | 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.