# SRG Series



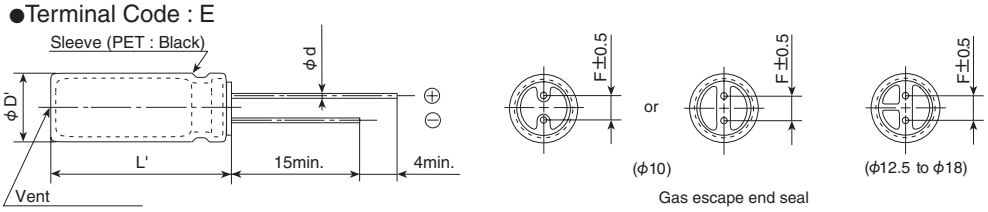
- Low profile : φ10×12.5mm to φ18×25mm
- Endurance : 2,000 hours at 85℃
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

## ◆SPECIFICATIONS

| Items | Characteristics | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Category Temperature Range | -40 to +85℃ | | | | | | | |
| Rated Voltage Range | 6.3 to 50$V_{dc}$ | | | | | | | |
| Capacitance Tolerance | ±20% (M) | | | | | | | (at 20℃, 120Hz) |
| Leakage Current | I=0.01CV or 3μA, whichever is greater.<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) | | | | | | | (at 20℃ 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℃, 120Hz) |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage ($V_{dc}$) | 6.3V | 10V | 16V | 25V | 35V | 50V | |
| | Z(-25℃)/Z(+20℃) | 5 | 4 | 3 | 2 | 2 | 2 | |
| | Z(-40℃)/Z(+20℃) | 12 | 10 | 8 | 5 | 4 | 3 | (at 120Hz) |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 85℃. | | | | | | | |
| | 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℃ after exposing them for 1,000 hours at 85℃ 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 | | | | | | |

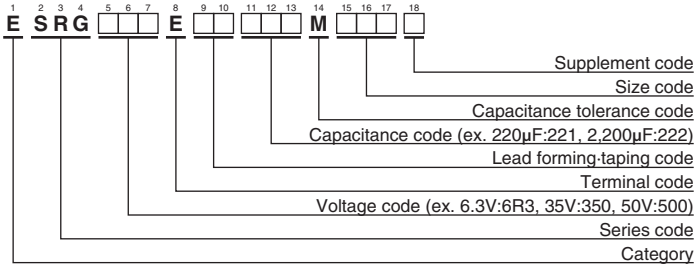
## ◆DIMENSIONS [mm]

●Terminal Code : E




| φD | 10 & 12.5 | 16 & 18 |
|---|---|---|
| φd | 0.6 | 0.8 |
| F | 5.0 | 7.5 |
| φD' | φD+0.5max. | |
| L' | L+1.5max. | |

## ◆PART NUMBERING SYSTEM




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

Product specifications in this catalog are subject to change without notice.Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

# SRG Series

## ◆STANDARD RATINGS

| WV ($V_{dc}$) | Cap (μF) | Case code φD×L(mm) | tan δ | Rated ripple current (mArms/ 85℃, 120Hz) | Part No. |
|---|---|---|---|---|---|
| 6.3 | 4,700 | 16×15 | 0.37 | 1,410 | ESRG6R3E□□472ML15S |
| | 6,800 | 18×15 | 0.43 | 1,660 | ESRG6R3E□□682MM15S |
| | 10,000 | 18×20 | 0.55 | 2,020 | ESRG6R3E□□103MM20S |
| 10 | 1,000 | 10×12.5 | 0.24 | 625 | ESRG100E□□102MJC5S |
| | 2,200 | 12.5×15 | 0.27 | 970 | ESRG100E□□222MK15S |
| | 3,300 | 16×15 | 0.30 | 1,310 | ESRG100E□□332ML15S |
| | 4,700 | 18×15 | 0.33 | 1,560 | ESRG100E□□472MM15S |
| | 6,800 | 18×20 | 0.39 | 1,870 | ESRG100E□□682MM20S |
| | 10,000 | 18×25 | 0.51 | 2,370 | ESRG100E□□103MM25S |
| 16 | 1,000 | 12.5×13 | 0.20 | 715 | ESRG160E□□102MK13S |
| | 2,200 | 16×15 | 0.23 | 1,160 | ESRG160E□□222ML15S |
| | 3,300 | 18×15 | 0.26 | 1,460 | ESRG160E□□332MM15S |
| | 4,700 | 18×20 | 0.29 | 1,770 | ESRG160E□□472MM20S |
| | 6,800 | 18×25 | 0.35 | 2,170 | ESRG160E□□682MM25S |

| WV ($V_{dc}$) | Cap (μF) | Case code φD×L(mm) | tan δ | Rated ripple current (mArms/ 85℃, 120Hz) | Part No. |
|---|---|---|---|---|---|
| 25 | 470 | 10×12.5 | 0.16 | 525 | ESRG250E□□471MJC5S |
| | 1,000 | 12.5×15 | 0.16 | 830 | ESRG250E□□102MK15S |
| | 2,200 | 18×15 | 0.19 | 1,360 | ESRG250E□□222MM15S |
| | 3,300 | 18×20 | 0.22 | 1,720 | ESRG250E□□332MM20S |
| | 4,700 | 18×25 | 0.25 | 2,070 | ESRG250E□□472MM25S |
| 35 | 330 | 10×12.5 | 0.14 | 475 | ESRG350E□□331MJC5S |
| | 470 | 12.5×13 | 0.14 | 585 | ESRG350E□□471MK13S |
| | 1,000 | 16×15 | 0.14 | 1,010 | ESRG350E□□102ML15S |
| | 2,200 | 18×20 | 0.17 | 1,560 | ESRG350E□□222MM20S |
| 50 | 220 | 10×12.5 | 0.12 | 415 | ESRG500E□□221MJC5S |
| | 330 | 12.5×13 | 0.12 | 525 | ESRG500E□□331MK13S |
| | 470 | 16×15 | 0.12 | 745 | ESRG500E□□471ML15S |
| | 1,000 | 18×20 | 0.12 | 1,160 | ESRG500E□□102MM20S |

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

## ◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

| Capacitance(μF) \ Frequency(Hz) | 50 | 120 | 300 | 1k | 10k | 100k |
|---|---|---|---|---|---|---|
| 220 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 deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

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