

SRG Series

- Low profile : $\phi 4 \times 7\text{mm}$ to $\phi 18 \times 25\text{mm}$
- Endurance : 1,000 to 2,000 hours at 85°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant

SRG

Downsized
Low profile
SMG

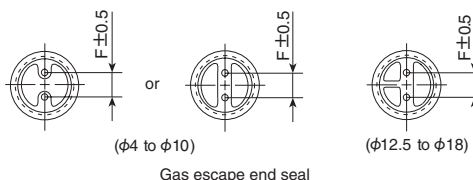
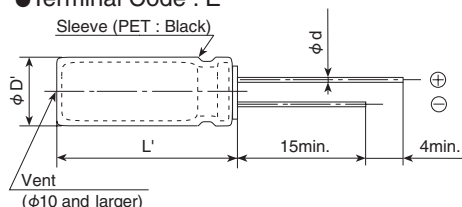


SPECIFICATIONS

Items	Characteristics						
Category	-40 to +85℃						
Temperature Range							
Rated Voltage Range	6.3 to 50V _{dc}						
Capacitance Tolerance	± 20% (M) (at 20℃, 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℃ 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
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours (1,000 hours for ϕ6.3 and smaller) 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					

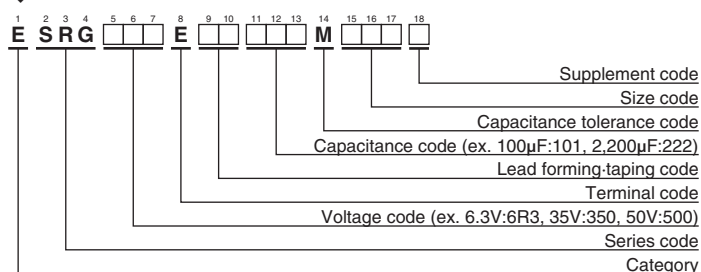
DIMENSIONS [mm]

Terminal Code : E



ϕD	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
$\phi D'$	$\phi D + 0.5\text{max.}$				
L'	$L + 1.5\text{max.}$ (7L : L+1.0max.)				

PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case code φD×L(mm)	tan δ	Rated ripple current (mA _{rms} /85°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case code φD×L(mm)	tan δ	Rated ripple current (mA _{rms} /85°C, 120Hz)	Part No.
6.3	47	4 × 7	0.28	50	ESRG6R3E□□470MD07D	25	330	10 × 9	0.16	380	ESRG250E□□331MJ09S
	100	5 × 7	0.28	87	ESRG6R3E□□101ME07D		470	10 × 12.5	0.16	525	ESRG250E□□471MJC5S
	220	6.3 × 7	0.28	133	ESRG6R3E□□221MF07D		1,000	12.5 × 15	0.16	830	ESRG250E□□102MK15S
	1,000	10 × 9	0.28	505	ESRG6R3E□□102MJ09S		2,200	18 × 15	0.19	1,360	ESRG250E□□222MM15S
	4,700	16 × 15	0.37	1,410	ESRG6R3E□□472ML15S		3,300	18 × 20	0.22	1,720	ESRG250E□□332MM20S
	6,800	18 × 15	0.43	1,660	ESRG6R3E□□682MM15S		4,700	18 × 25	0.25	2,070	ESRG250E□□472MM25S
10	10,000	18 × 20	0.55	2,020	ESRG6R3E□□103MM20S	35	10	4 × 7	0.14	32	ESRG350E□□100MD07D
	33	4 × 7	0.24	46	ESRG100E□□330MD07D		22	5 × 7	0.14	57	ESRG350E□□220ME07D
	1,000	10 × 12.5	0.24	625	ESRG100E□□102MJC5S		33	6.3 × 7	0.14	73	ESRG350E□□330MF07D
	2,200	12.5 × 15	0.27	970	ESRG100E□□222MK15S		220	10 × 9	0.14	335	ESRG350E□□221MJ09S
	3,300	16 × 15	0.30	1,310	ESRG100E□□332ML15S		330	10 × 12.5	0.14	475	ESRG350E□□331MJC5S
	4,700	18 × 15	0.33	1,560	ESRG100E□□472MM15S		470	12.5 × 13	0.14	585	ESRG350E□□471MK13S
16	6,800	18 × 20	0.39	1,870	ESRG100E□□682MM20S	50	1,000	16 × 15	0.14	1,010	ESRG350E□□102ML15S
	10,000	18 × 25	0.51	2,370	ESRG100E□□103MM25S		2,200	18 × 20	0.17	1,560	ESRG350E□□222MM20S
	22	4 × 7	0.20	42	ESRG160E□□220MD07D		1.0	4 × 7	0.12	10	ESRG500E□□1R0MD07D
	47	5 × 7	0.20	73	ESRG160E□□470ME07D		2.2	4 × 7	0.12	15	ESRG500E□□2R2MD07D
	100	6.3 × 7	0.20	110	ESRG160E□□101MF07D		3.3	4 × 7	0.12	19	ESRG500E□□3R3MD07D
	470	10 × 9	0.20	410	ESRG160E□□471MJ09S		4.7	4 × 7	0.12	24	ESRG500E□□4R7MD07D
25	1,000	12.5 × 13	0.20	715	ESRG160E□□102MK13S	100	10	5 × 7	0.12	42	ESRG500E□□100ME07D
	2,200	16 × 15	0.23	1,160	ESRG160E□□222ML15S		22	6.3 × 7	0.12	64	ESRG500E□□220MF07D
	3,300	18 × 15	0.26	1,460	ESRG160E□□332MM15S		100	10 × 9	0.12	240	ESRG500E□□101MJ09S
	4,700	18 × 20	0.29	1,770	ESRG160E□□472MM20S		220	10 × 12.5	0.12	415	ESRG500E□□221MJC5S
	6,800	18 × 25	0.35	2,170	ESRG160E□□682MM25S		330	12.5 × 13	0.12	525	ESRG500E□□331MK13S
	33	5 × 7	0.16	66	ESRG250E□□330ME07D		470	16 × 15	0.12	745	ESRG500E□□471ML15S
	47	6.3 × 7	0.16	80	ESRG250E□□470MF07D		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
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.