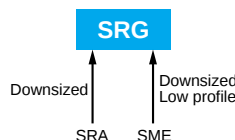


SRG Series

- 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-proof type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

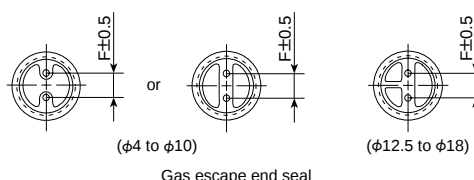
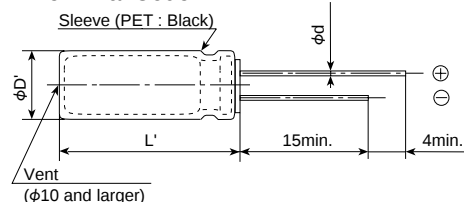


SPECIFICATIONS

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 (tanδ)	Rated voltage (V _{dc})	4V	6.3V	10V	16V	25V	35V	50V	
	tanδ (Max.)	0.38	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})	4V	6.3V	10V	16V	25V	35V	50V	
	Z(-25°C)/Z(+20°C)	6	5	4	3	2	2	2	
	Z(-40°C)/Z(+20°C)	12	12	10	8	5	4	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 2,000 hours (1,000 hours for ø8 and smaller) at 85°C.								
	Capacitance change	≤±20% of the initial value							
	D.F. (tanδ)	≤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.								
	Capacitance change	≤±20% of the initial value							
	D.F. (tanδ)	≤200% of the initial specified value							
	Leakage current	≤The initial specified value							

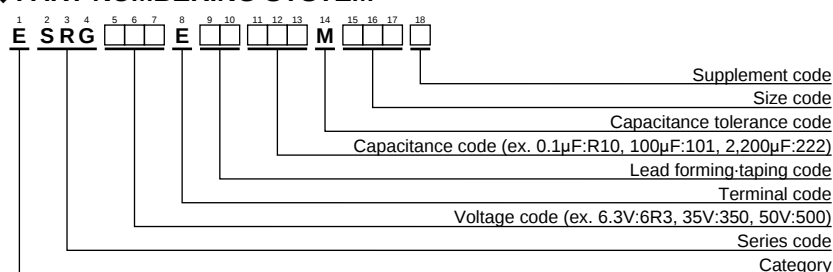
DIMENSIONS [mm]

- Terminal Code : E



φD	4	5	6.3	8	10 & 12.5	16 & 18
7L	0.45	0.45	0.45	0.45	—	—
φd	≥9L	—	0.5	0.5	0.6	0.8
F	1.5	2.0	2.5	3.5	5.0	7.5
φD'	φD+0.5max.					
L'	L+1.5max. (7L : L+1.0max.)					

PART NUMBERING SYSTEM



Please refer to "A guide to global code (radial lead type)"

◆ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case code φDXL(mm)	tanδ	Rated ripple current (mAmps/ 85°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case code φDXL(mm)	tanδ	Rated ripple current (mAmps/ 85°C,120Hz)	Part No.
4	470	8X7	0.38	154	ESRG4R0E□□471MH07D	25	2,200	18X15	0.19	1,360	ESRG250E□□222MM15S
6.3	47	4X7	0.28	50	ESRG6R3E□□470MD07D		3,300	18X20	0.22	1,720	ESRG250E□□332MM20S
	100	5X7	0.28	87	ESRG6R3E□□101ME07D		4,700	18X25	0.25	2,070	ESRG250E□□472MM25S
	220	6.3X7	0.28	133	ESRG6R3E□□221MF07D	10	4X7	0.14	32	ESRG350E□□100MD07D	
	330	6.3X9	0.28	247	ESRG6R3E□□331MF09D	22	5X7	0.14	57	ESRG350E□□220ME07D	
	330	8X7	0.28	191	ESRG6R3E□□331MH07D	33	5X9	0.14	94	ESRG350E□□330ME09D	
	1,000	10X9	0.28	505	ESRG6R3E□□102MJ09S	33	6.3X7	0.14	73	ESRG350E□□330MF07D	
	4,700	16X15	0.37	1,410	ESRG6R3E□□472ML15S	47	8X7	0.14	101	ESRG350E□□470MH07D	
	6,800	18X15	0.43	1,660	ESRG6R3E□□682MM15S	100	8X9	0.14	220	ESRG350E□□101MH09D	
10,000	18X20	0.55	2,020	ESRG6R3E□□103MM20S	220	10X9	0.14	335	ESRG350E□□221MJ09S		
10	33	4X7	0.24	46	ESRG100E□□330MD07D	330	10X12.5	0.14	475	ESRG350E□□331MJC5S	
	100	5X9	0.24	132	ESRG100E□□101ME09D	470	12.5X13	0.14	585	ESRG350E□□471MK13S	
	220	6.3X9	0.24	218	ESRG100E□□221MF09D	1,000	16X15	0.14	1,010	ESRG350E□□102ML15S	
	220	8X7	0.24	171	ESRG100E□□221MH07D	2,200	18X20	0.17	1,560	ESRG350E□□221MJ09S	
	470	8X9	0.24	385	ESRG100E□□471MH09D	50	0.10	4X7	0.12	1.3	ESRG500E□□R10MD07D
	1,000	10X12.5	0.24	625	ESRG100E□□102MJC5S		0.22	4X7	0.12	2.9	ESRG500E□□R22MD07D
	2,200	12.5X15	0.27	970	ESRG100E□□222MK15S		0.33	4X7	0.12	3.5	ESRG500E□□R33MD07D
	3,300	16X15	0.30	1,310	ESRG100E□□332ML15S		0.47	4X7	0.12	5.0	ESRG500E□□R47MD07D
4,700	18X15	0.33	1,560	ESRG100E□□472MM15S	1.0		4X7	0.12	10	ESRG500E□□1R0MD07D	
6,800	18X20	0.39	1,870	ESRG100E□□682MM20S	1.0		5X9	0.12	13	ESRG500E□□1R0ME09D	
10,000	18X25	0.51	2,370	ESRG100E□□103MM25S	2.2		4X7	0.12	15	ESRG500E□□2R2MD07D	
22	4X7	0.20	42	ESRG160E□□220MD07D	2.2		5X9	0.12	26	ESRG500E□□2R2ME09D	
47	5X7	0.20	73	ESRG160E□□470ME07D	3.3		4X7	0.12	19	ESRG500E□□3R3MD07D	
100	6.3X7	0.20	110	ESRG160E□□101MF07D	3.3		5X9	0.12	32	ESRG500E□□3R3ME09D	
220	8X9	0.20	290	ESRG160E□□221MH09D	4.7		4X7	0.12	24	ESRG500E□□4R7MD07D	
330	8X9	0.20	355	ESRG160E□□331MH09D	4.7		5X9	0.12	38	ESRG500E□□4R7ME09D	
470	10X9	0.20	410	ESRG160E□□471MJ09S	10		5X7	0.12	42	ESRG500E□□100ME07D	
1,000	12.5X13	0.20	715	ESRG160E□□102MK13S	10		5X9	0.12	64	ESRG500E□□100ME09D	
2,200	16X15	0.23	1,160	ESRG160E□□222ML15S	22		5X9	0.12	86	ESRG500E□□220ME09D	
3,300	18X15	0.26	1,460	ESRG160E□□332MM15S	22		6.3X7	0.12	64	ESRG500E□□220MF07D	
4,700	18X20	0.29	1,770	ESRG160E□□472MM20S	33	6.3X9	0.12	113	ESRG500E□□330MF09D		
6,800	18X25	0.35	2,170	ESRG160E□□682MM25S	33	8X7	0.12	93	ESRG500E□□330MH07D		
25	33	5X7	0.16	66	ESRG250E□□330ME07D	47	6.3X9	0.12	135	ESRG500E□□470MF09D	
	47	5X9	0.16	105	ESRG250E□□470ME09D	100	10X9	0.12	240	ESRG500E□□101MJ09S	
	47	6.3X7	0.16	80	ESRG250E□□470MF07D	220	10X12.5	0.12	415	ESRG500E□□221MJC5S	
	100	6.3X9	0.16	172	ESRG250E□□101MF09D	330	12.5X13	0.12	525	ESRG500E□□331MK13S	
	330	10X9	0.16	380	ESRG250E□□331MJ09S	470	16X15	0.12	745	ESRG500E□□471ML15S	
	470	10X12.5	0.16	525	ESRG250E□□471MJC5S	1,000	18X20	0.12	1,160	ESRG500E□□102MM20S	
	1,000	12.5X15	0.16	830	ESRG250E□□102MK15S						

□□ : Lead forming / Taping code

◆ RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

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