SRA Series

- 7mm height
- Endurance : 1,000 hours at 85℃
- Non solvent resistant type
- RoHS Compliant

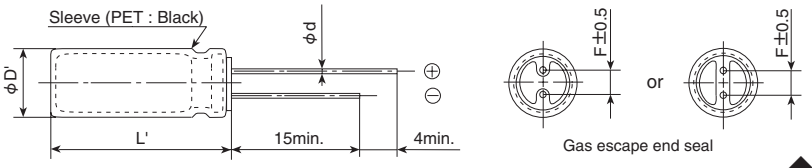
SRG P139 ↑ Downsized → SRA

◆SPECIFICATIONS

Items	Characteristics									
Category Temperature Range	-40 to +85℃									
Rated Voltage Range	4 to 63V_{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})	4V	6.3V	10V	16V	25V	35V	50V	63V	
	tan δ (Max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10	0.08	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V_{dc})	4V	6.3V	10V	16V	25V	35V	50V	63V	
	Z(-25℃)/Z(+20℃)	4	4	3	2	2	2	2	2	
	Z(-40℃)/Z(+20℃)	10	10	8	6	4	3	3	3	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 1,000 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 500 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								

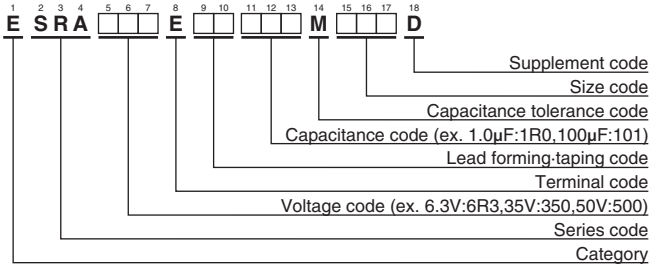
◆DIMENSIONS [mm]

●Terminal Code : E



φD	4	5	6.3	8
φd	0.45	0.45	0.45	0.45
F	1.5	2.0	2.5	3.5
φD'	φD+0.5max.			
L'	L+1.0max.			

◆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 470	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℃ 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

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mArms/ 85℃, 120Hz)	Part No.
4	33	4×7	0.35	26	ESRA4R0E□□330MD07D
	47	4×7	0.35	34	ESRA4R0E□□470MD07D
	100	5×7	0.35	61	ESRA4R0E□□101ME07D
	220	6.3×7	0.35	95	ESRA4R0E□□221MF07D
	470	8×7	0.35	154	ESRA4R0E□□471MH07D
6.3	22	4×7	0.24	31	ESRA6R3E□□220MD07D
	47	5×7	0.24	47	ESRA6R3E□□470ME07D
	330	8×7	0.24	156	ESRA6R3E□□331MH07D
10	33	5×7	0.20	43	ESRA100E□□330ME07D
	100	6.3×7	0.20	80	ESRA100E□□101MF07D
	220	8×7	0.20	140	ESRA100E□□221MH07D
16	10	4×7	0.16	25	ESRA160E□□100MD07D
	22	5×7	0.16	39	ESRA160E□□220ME07D
	47	6.3×7	0.16	59	ESRA160E□□470MF07D
	100	6.3×7	0.16	97	ESRA160E□□101MF07D
25	33	6.3×7	0.14	53	ESRA250E□□330MF07D
	47	6.3×7	0.14	71	ESRA250E□□470MF07D

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mArms/ 85℃, 120Hz)	Part No.
35	4.7	4×7	0.12	20	ESRA350E□□4R7MD07D
	10	5×7	0.12	30	ESRA350E□□100ME07D
	22	6.3×7	0.12	47	ESRA350E□□220MF07D
	33	6.3×7	0.12	64	ESRA350E□□330MF07D
	47	8×7	0.12	83	ESRA350E□□470MH07D
50	1.0	4×7	0.10	10	ESRA500E□□1R0MD07D
	2.2	4×7	0.10	15	ESRA500E□□2R2MD07D
	3.3	4×7	0.10	18	ESRA500E□□3R3MD07D
	4.7	5×7	0.10	23	ESRA500E□□4R7ME07D
	10	6.3×7	0.10	34	ESRA500E□□100MF07D
	22	6.3×7	0.10	57	ESRA500E□□220MF07D
	33	8×7	0.10	76	ESRA500E□□330MH07D
63	1.0	4×7	0.08	11	ESRA630E□□1R0MD07D
	2.2	4×7	0.08	17	ESRA630E□□2R2MD07D
	3.3	5×7	0.08	21	ESRA630E□□3R3ME07D
	4.7	6.3×7	0.08	26	ESRA630E□□4R7MF07D
	10	6.3×7	0.08	47	ESRA630E□□100MF07D

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