

SRE Series

- 5mm height
- Endurance : 1,000 hours at 85°C
- Non solvent resistant type
- RoHS Compliant

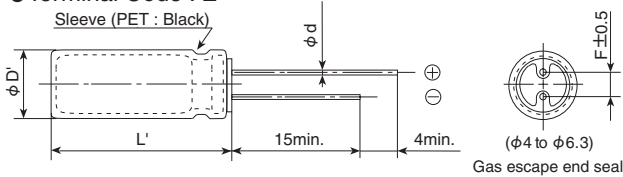


SPECIFICATIONS

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 (tan δ)	Rated voltage (V _{dc})	4V	6.3V	10V	16V	25V	35V	50V
	tan δ (Max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	4V	6.3V	10V	16V	25V	35V	50V
	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2
	Z(-40°C)/Z(+20°C)	15	10	8	6	4	3	3
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 85°C.							
	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°C after exposing them for 1,000 hours at 85°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.							
	Capacitance change	≤ ±20% of the initial value						
	D.F. (tan δ)	≤200% of the initial specified value						
	Leakage current	≤The initial specified value						

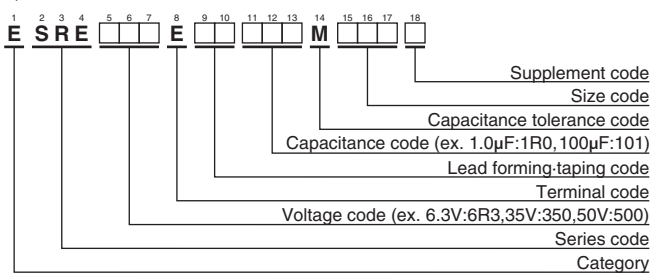
DIMENSIONS [mm]

- Terminal Code : E



φD	4	5	6.3
φd	0.45	0.45	0.45
F	1.5	2.0	2.5
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 100	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.

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 (mA _{rms} /85°C, 120Hz)	Part No.
4	33	4×5	0.35	23	ESRE4R0E□□330MD05D
	10	4×5	0.24	12	ESRE6R3E□□100MD05D
6.3	22	4×5	0.24	23	ESRE6R3E□□220MD05D
	47	5×5	0.24	38	ESRE6R3E□□470ME05D
	100	6.3×5	0.24	60	ESRE6R3E□□101MF05D
10	33	5×5	0.20	35	ESRE100E□□330ME05D
	4.7	4×5	0.16	10	ESRE160E□□4R7MD05D
16	10	4×5	0.16	17	ESRE160E□□100MD05D
	22	5×5	0.16	32	ESRE160E□□220ME05D
	47	6.3×5	0.16	50	ESRE160E□□470MF05D
25	3.3	4×5	0.14	9.3	ESRE250E□□3R3MD05D
	4.7	4×5	0.14	12	ESRE250E□□4R7MD05D
	33	6.3×5	0.14	45	ESRE250E□□330MF05D

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mA _{rms} /85°C, 120Hz)	Part No.
35	2.2	4×5	0.12	8.3	ESRE350E□□2R2MD05D
	3.3	4×5	0.12	11	ESRE350E□□3R3MD05D
	4.7	4×5	0.12	15	ESRE350E□□4R7MD05D
	10	5×5	0.12	25	ESRE350E□□100ME05D
	22	6.3×5	0.12	40	ESRE350E□□220MF05D
50	1.0	4×5	0.10	6.2	ESRE500E□□1R0MD05D
	2.2	4×5	0.10	10	ESRE500E□□2R2MD05D
	3.3	4×5	0.10	14	ESRE500E□□3R3MD05D
	4.7	5×5	0.10	19	ESRE500E□□4R7ME05D
	10	6.3×5	0.10	29	ESRE500E□□100MF05D

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