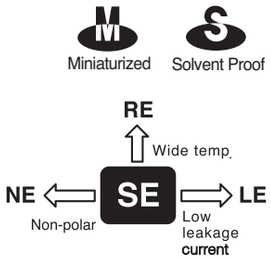
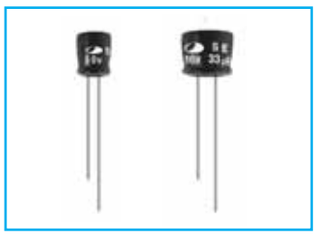
SE Standard, Height 5mmL Series

- Ultra miniature series with 5mmL height
- Suitable to replace tantalum capacitors at low cost
- Load life of 2000 hours at 85˚C
- Complied to the RoHS directive





Item	Characteristics
Operating temperature range	-40 ~ +85˚C
Leakage current max.	I = 0.01CV or 4μA whichever is greater (after 1 minute)
Capacitance tolerance	±20% at 120Hz, 20˚C
Dissipation factor max. (at 120Hz, 20˚C)	WV: 4 / 6.3 / 10 / 16 / 25 / 35 / 50 / 63 tanδ: 0.35 / 0.24 / 0.20 / 0.16(0.20) / 0.13(0.15) / 0.12(0.14) / 0.09(0.11) / 0.09(0.11) Figures in ( ) are for Ø3 products.
Low temperature characteristics (Impedance ratio at 120Hz)	WV: 4 / 6.3 / 10 / 16 ~ 63 Z-25˚C/Z+20˚C: 6 / 4 / 3 / 2 Z-40˚C/Z+20˚C: 12 / 8 / 6 / 4
Load life (after application of the rated voltage for 2000 hours at 85˚C)	Leakage current: Less than specified value Capacitance change: Within ±20% of initial value tanδ: Less than 200% of specified value
Shelf life (at 85˚C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20˚C by the KS C 6035 clause 5.4.

DRAWING (See page 100)

Unit : mm

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF \ WV	4		6.3		10		16		25		35		50		63	
1.0													4×5(3×5)	13(9.8)	4×5(3×5)	13(9.8)
1.5													4×5(3×5)	16(12)	4×5	16
2.2											4×5(3×5)	17(13)	4×5	19	4×5	19
3.3									4×5(3×5)	20(15)	4×5	20	4×5	24	5×5	27
4.7							4×5(3×5)	21(16)	4×5	23	4×5	24	5×5	33	5×5	33
6.8					4×5(3×5)	23(19)	4×5	25	4×5	28	5×5	34	5×5	39	6.3×5	46
10	4×5(3×5)	21(17)	4×5(3×5)	25(21)	4×5	28	4×5	31	5×5	40	5×5	41	6.3×5	56	6.3×5	56
15	4×5(3×5)	26(21)	4×5	31	4×5	34	5×5	44	5×5	49	6.3×5	59	6.3×5	68	8×5	81
22	4×5(3×5)	31(26)	4×5	37	5×5	47	5×5	53	6.3×5	69	6.3×5	72	8×5	98	8×5	98
33	4×5	38	5×5	53	5×5	58	6.3×5	76	6.3×5	84	8×5	104	8×5	120		
47	4×5	45	5×5	63	6.3×5	81	6.3×5	91	8×5	119	8×5	124				
68	5×5	63	6.3×5	89	6.3×5	98	6.3×5	109	8×5	143						
100	5×5	89	6.3×5	108	8×5	140	8×5	157	8×5	174						
150	6.3×5	109	8×5	157	8×5	172	8×5	192								
220	6.3×5	133	8×5	190	8×5	208										
330	8×5	192														

Ripple current (mA rms) at 85˚C, 120Hz
Case size ØD×L (mm)

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency / μF	60Hz	120Hz	1kHz	10kHz	50kHz	100kHz≦
~ 47	0.75	1.00	1.55	2.00	2.00	2.00
68 ~	0.80	1.00	1.35	1.50	1.62	1.75