MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

SE Standard, Height 5mmL Series

M Miniaturized   **S** Solvent Proof

RE
⇧ Wide temp.

NE ⇐ **SE**
Non-polar

· 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
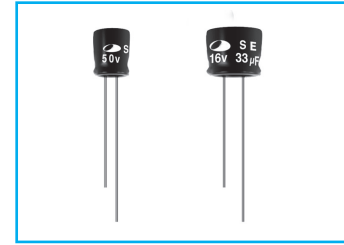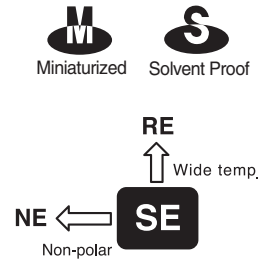
Item	Characteristics								
Operating temperature range	-40 ~ +85°C								
Leakage current max.	I = 0.01CV or 4μA whichever is greater (after 1 minute)								
Capacitance tolerance	±20% at 120Hz, 20°C								
Dissipation factor max. (at 120Hz, 20°C)	WV	4	6.3	10	16	25	35	50	63
	tanδ	0.35	0.24	0.20	0.16	0.13	0.12	0.09	0.09

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 IEC 60384 - 4

● DRAWING (See page 99)

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF \ WV	4		6.3		10		16		25		35		50		63	
1.0													4×5	13	4×5	13
1.5													4×5	16	4×5	16
2.2											4×5	17	4×5	19	4×5	19
3.3									4×5	20	4×5	20	4×5	24	5×5	27
4.7							4×5	21	4×5	23	4×5	24	5×5	33	5×5	33
6.8					4×5	23	4×5	25	4×5	28	5×5	34	5×5	39	6.3×5	46
10	4×5	21	4×5	25	4×5	28	4×5	31	5×5	40	5×5	41	6.3×5	56	6.3×5	56
15	4×5	26	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	31	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 ∅D×L (mm)

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

μF \ Frequency	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