



# SMD Aluminium Electrolytic Capacitors

## SL

### 85°C Extended Life

#### Chip Type Series

- Designed for surface mounting on high density PC board.
- Supplied with carrier taping for automatic mounting machine.
- Guarantees 2000Hours at 85°C.



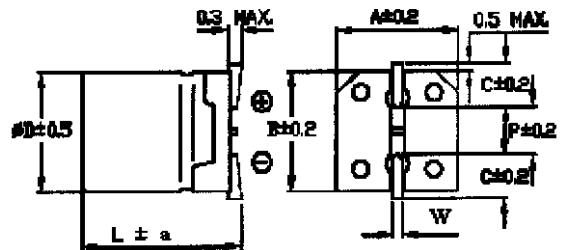
### Specifications

Item	Characteristics									
Operating Temperature Range	- 40°C ~ + 85°C									
Working Voltage Range	4 ~ 100V									
Capacitance Range	0.1 ~ 1500 $\mu$ F									
Capacitance Tolerance	$\pm 20\%$ (120 Hz, 20°C)									
Leakage Current Max.	$I \leq 0.01$ CV or 3 ( $\mu$ A) whichever is greater (after 2 min.)									
Dissipation Factor at 120Hz, 20°C (tan $\delta_{max}$ )	W.V.	4	6.3	10	16	25	35	50	63	100
	$\phi 3$	0.40	0.30	-	0.19	0.16	0.14	0.14	-	-
	$\phi 4 \sim 6.3$	0.35	0.26	0.20	0.16	0.14	0.12	0.12	0.12	0.10
Low Temp. Characteristics (Impedance ratio at 120 Hz)	W.V.	4	6.3	10	16	25	35	50	63	100
	Z -25°C / Z +20°C	7	4	3	2	2	2	2	2	2
	Z -40°C / Z +20°C	15	8	8	4	4	3	3	3	3
Load Life (After application of the rated voltage for 2000 hours at 85°C)	Capacitance Change	Within $\pm 25\%$ of initial value. (4WV $\leq \pm 30\%$ )								
	tan $\delta$	Less than 200% of initial specified value.								
	Leakage Current	Less than specified value.								
Shelf Life (at 85°C)	After 1000 hrs. no load test, leakage current, capacitance change and tan $\delta$ are as same as load life value.									
Soldering Heat Resistance	Place terminal side surface on 250°C hot plate for 30 seconds allow test samples to be cooled down to room temperature.									
	Capacitance Change	Within $\pm 10\%$ of initial value.								
	tan $\delta$	Less than initial specified value.								
	Leakage Current	Less than initial specified value.								

Unit:mm

$\phi \pm 0.5$ MAX.	L	a	A $\pm 0.2$	B $\pm 0.2$	C $\pm 0.2$	W	P $\pm 0$ .
3	5.4	0.3	3.3	3.3	1.5	0.45 ~ 0.7	0.6
4	5.2	0.3	4.3	4.3	1.8	0.5 ~ 0.8	1.0
4	6.0	0.3	4.3	4.3	1.8	0.5 ~ 0.8	1.0
5	5.2	0.3	5.3	5.3	2.1	0.5 ~ 0.8	1.4
6.3	5.2	0.3	6.6	6.6	2.4	0.5 ~ 0.8	2.2
6.3	6.0	0.3	6.6	6.6	2.4	0.5 ~ 0.8	2.2
6.3	7.7	0.3	6.6	6.6	2.4	0.5 ~ 0.8	2.2
8	10.5	0.5	8.3	8.3	2.9	0.7 ~ 1.0	3.2
10	10.5	0.5	10.3	10.3	3.2	0.7 ~ 1.0	4.6

### DIAGRAM OF DIMENSIONS



### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT mA(rms) at 120 Hz, 85°C

W.V. $\mu$ F	4	6.3	10	16	25	35	50	63	100	
0.1							* 4 x 5.2	1.0	4 x 5.2	1.0
0.22							* 4 x 5.2	2.0	4 x 5.2	2.3
0.33							* 4 x 5.2	2.8	4 x 5.2	3.5
0.47							* 4 x 5.2	4.0	4 x 5.2	5.0
1							* 4 x 5.2	8.4 (8.0)	4 x 5.2	10
2.2							*	(8.0)	* 4 x 5.2	15
3.3								(10)	4 x 5.2	17
4.7									5 x 5.2	20
10									5 x 5.2	23
22	*	(19)	* 4 x 5.2	31 (19)	5 x 5.2	33	5 x 5.2	37	6.3 x 5.2	42
33	4 x 5.2	28	5 x 5.2	37	5 x 5.2	41	6.3 x 5.2	49	6.3 x 5.2	52
47	4 x 5.2	33	5 x 5.2	45	6.3 x 5.2	52	6.3 x 5.2	58	6.3 x 6.0	68
56	5 x 5.2	42	5 x 5.2	54	6.3 x 5.2	68	6.3 x 5.2	74	6.3 x 6.0	82
68	5 x 5.2	45	6.3 x 5.2	62	6.3 x 5.2	72	6.3 x 5.2	80	6.3 x 6.0	94
100	5 x 5.2	56	6.3 x 5.2	70	6.3 x 5.2	76	6.3 x 5.2	86	6.3 x 7.7	130
150	6.3 x 5.2	74	6.3 x 5.2	78	6.3 x 6.0	88	6.3 x 7.7	135	8 x 10.5	200
220	6.3 x 5.2	82	6.3 x 6.0	95	6.3 x 7.7	150	6.3 x 7.7	150	8 x 10.5	280
330	6.3 x 6.0	102	6.3 x 7.7	150	8 x 10.5	250	8 x 10.5	280	8 x 10.5	310
470	6.3 x 7.7	150	8 x 10.5	270	8 x 10.5	300	8 x 10.5	330	10 x 10.5	430
680			8 x 10.5	320	10 x 10.5	380	10 x 10.5	390		
1000			8 x 10.5	330	10 x 10.5	450				
1500			10 x 10.5	450						

\*  $\phi 3$  is available