Amber Electronic Limited

UT - 2000H at 105°C SMD Aluminum Electrolytic Capacitor (General purpose)

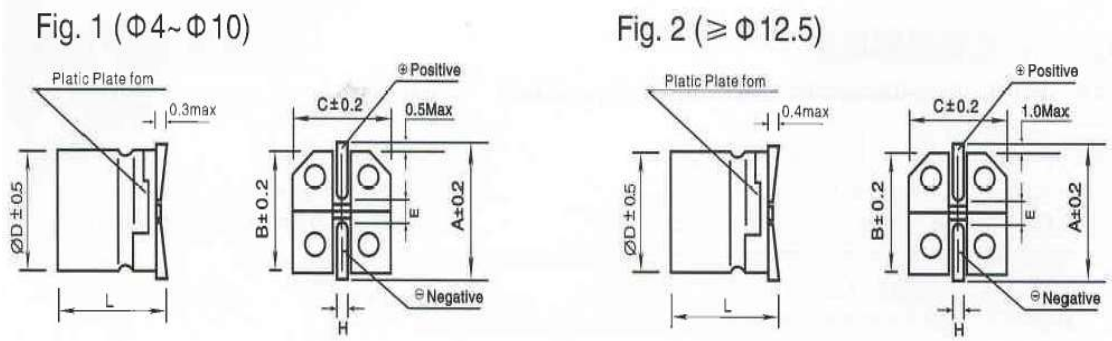
Features

- 2000hrs at 105°C
- Case diameter 4mm ~ 12.5mm
- Reflow soldering is available
- Available for high densify surface mounting
- High stability and reliability
- RoHS Compliant

Specifications

Item	Performance Characteristics									
Operating Temperature Range	-55~+105℃									
Rated Voltage Range	6.3V ~ 100V									
Nominal Capacitance Range	1uF ~2200μF									
Norminal Capacitance Tolerance	±20%(+20℃ ,120Hz)									
Leakage Current (MAX)	I = 0.01CV(μA) or 3μA after2 minutes									
	I=Leakage Current (μA) C=Norminal Capacitance (μF) V=Rated Voltage (V)									
Dissipation Factor (MAX) (tgδ,+20℃ ,120Hz)	Rated Voltage (V)	4	6.3	10	16	25	35	50	63	100
	tgδ	0.35	0.3	0.24	0.2	0.18	0.16	0.14	0.14	0.14
Load Life	After applying rated voltage for with max ripple current for 2000hrs at 105℃, and then resumed 16 hours, the capacitors shall meet the following requirements.									
	Capacitance change : within ±30% of the initial measured value									
	Leakage current : ≤ the initial specified value									
	Dissipation factor: ≤ 200% of the initial specified value									
Shelf Life	After storage for 1000hrs at 105℃, then resumed 16 hours, the capacitors shall meet the following requirements.									
	Capacitance change : within ±30% of the initial measured value									
	Leakage current : ≤ 300% of the initial specified value									
	Dissipation factor: ≤ 200% of the initial specified value									
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250℃ for 30 seconds. After removing the hot plate and restored at room temperature, they meet the following requirements.									
	Capacitance change : within ±10% of the initial measured value									
	Leakage current : ≤ the initial specified value									
	Dissipation factor: ≤ the initial specified value									
Low Temperature Stability Impedance Ratio(MAX) 120Hz	Rated Voltage (V)		4	6.3	10	16	25	35	50	63	100
	Z-25℃/Z+20℃	< Φ8	7	4	3	2	2	2	2	2	2
		≥ Φ8	7	5	4	3	2	2	2	2	2
	Z-40℃/Z+20℃	< Φ8	15	8	8	4	4	3	3	3	3
		≥ Φ8	15	10	8	6	4	3	3	3	3

Diagram of Dimensions



Unit: mm

Φ D	L	A	B	C	E	H	Fig.No
4	5.4 ±0.3	5.0	4.3	4.3	1.0	0.5~0.9	1
5	5.4 ±0.3	6.0	5.3	5.3	1.5	0.5~0.9	1
6.3	5.4 ±0.3	7.2	6.6	6.6	2.1	0.5~0.9	1
6.3	7.7 ±0.3	7.2	6.6	6.6	2.1	0.5~0.9	1
8	6.5 ±0.5	9.1	8.3	8.3	3.1	0.8~1.1	1
8	10.2 ±0.5	9.1	8.3	8.3	3.1	0.8~1.1	1
10	10.2 ±0.5	11.1	10.3	10.3	4.5	0.8~1.1	1
12.5	13.5 ±0.5	13.7	13.0	13.0	4.4	1.0~1,4	2

Multiplier for Ripple Current

Frequency coefficient

Frequency(Hz)	50	120	300	1k	≥10k
Coefficient	0.70	1.00	1.17	1.36	1.50

Standard Size

Rated Voltage (Vdc)	6.3V		10V		16V		25V	
Capacitance (μF)	DxL (mm)	mA	DxL (mm)	mA	DxL (mm)	mA	DxL (mm)	mA
1								
2.2								
3.3								
4.7							4 x 5.4	14
10					4 x 5.4	17	4 x 5.4	15
							5 x 5.4	21
22					4 x 5.4	21	5 x 5.4	26
					5 x 5.4	28	6.3 x 5.4	37
33			4 x 5.4	23	5 x 5.4	29	5 x 5.4	30
			5 x 5.4	34				
47	4 x 5.4	26	4 x 5.4	31	5 x 5.4	33	6.3 x 5.4	49
			6.3 x 5.4	42	6.3 x 5.4	48		
100	5 x 5.4	40	5 x 5.4	40	6.3 x 5.4	63	6.3 x 7.7	93
	6.3 x 5.4	52	6.3 x 5.4	55				
220	6.3 x 5.4	69	6.3 x 5.4	78	6.3 x 7.7	110	8 x 10.2	183
			6.3 x 7.7	110	8 x 6.5	110		
330	6.3 x 7.7	108	6.3 x 7.7	108	8 x 10.2	201	8 x 10.2	228
470	6.3 x 7.7	125	6.3 x 7.7	160	8 x 10.2	240	10 x 10.2	286
			8 x 10.2	214	10 x 10.2	300		
680	8 x 10.2	214	8 x 10.2	277	10 x 10.2	322	12.5 x 13.5	440
1000	8 x 10.2	235	10 x 10.2	320	10 x 10.2	347	12.5 x 13.5	500
	10 x 10.2	310						
1500	10 x 10.2	320						
2200			12.5 x 13.5	600				

Rated Voltage (Vdc)	35V		50V		63V		100V	
Capacitance (μF)	DxL (mm)	mA	DxL (mm)	mA	DxL (mm)	mA	DxL (mm)	mA
1			4 x 5.4	8.0	4 x 5.4	7.2	4 x 5.4	7.2
2.2			4 x 5.4	12	4 x 5.4	12	6.3 x 5.4	15
3.3			4 x 5.4	14			6.3 x 5.4	22
4.7	4 x 5.4	15	4 x 5.4	14	5 x 5.4	17	6.3 x 5.4	23
			5 x 5.4	17			6.3 x 7.7	38
10	4 x 5.4	15	5 x 5.4	23	6.3 x 5.4	26	6.3 x 7.7	38
	5 x 5.4	22	6.3 x 5.4	25	6.3 x 7.7	41		
22	5 x 5.4	30	6.3 x 5.4	43	6.3 x 7.7	53	8 x 10.2	90
	6.3 x 5.4	40						
33	6.3 x 5.4	45	6.3 x 7.7	63	8 x 10.2	116	10 x 10.2	136
47	6.3 x 5.4	54	6.3 x 7.7	66	8 x 10.2	125	10 x 10.2	148
					10 x 10.2	168		
100	6.3 x 7.7	87	8 x 10.2	146	10 x 10.2	200		
	8 x 10.2	125	10 x 10.2	178				
220	8 x 10.2	195	10 x 10.2	230				
	10 x 10.2	230						
330	10 x 10.2	247	10 x 10.2	360				
470	10 x 10.2	286						
680	12.5 x 13.5	440						
1000								
1500								
2200								

mA Rated ripple crrent (mA 105℃,120kHz)

Customer products are available on request.