

TMCE24 SMD Aluminum Electrolytic Capacitor 105C

Features

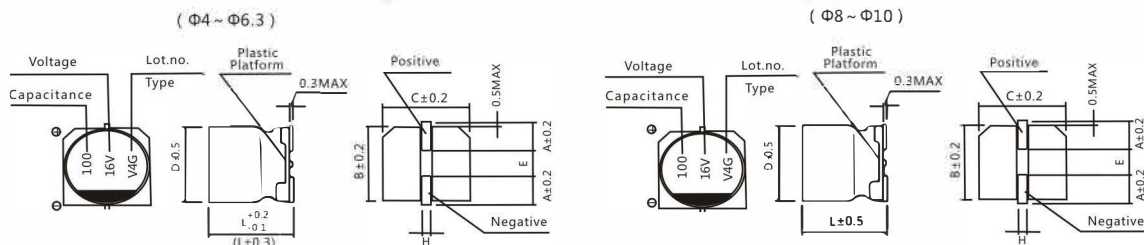
- Case diameter: $\varnothing 4\text{mm} - \varnothing 10\text{mm}$.
- Reflow soldering is available.
- Available for high density surface mounting.
- Operating over wide temperature range($-40 - +105^{\circ}\text{C}$).



Specifications

Item	Characteristics							
Operating temperature range	-40 ~ +105°C							
Rated voltage range	4V ~ 50V							
Nominal Capacitance Range	0.1-1000 μF							
Nominal Capacitance Tolerance	$\pm 20\%$ (20°C,120Hz)							
Leakage Current	$1 \leq 0.01C_r V_r$, or 3(μA) Whichever is greater (After 2 minutes' application of rated voltage) C_r : Nominal Capacitance(μF) U_r : Rated voltages (V)							
Dissipation Factor(Max) 20°C ,120Hz	U_r (V)	4	6.3	10	16	25	35	50
	$\tan\delta$	0.3	0.28	0.24	0.20	0.16	0.14	0.12
Load Life	After 1000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement.							
	Capacitance Change	Within 20% of the initial value ($\leq 16\text{V}$: within ± 25 of the initial value)						
	Dissipation Factor	Not more than 300% of the initial specified value						
Shelf Life	After storage for 1000 hours +105°C, U_r to be applied for 30 minutes, the capacitors shall meet the requirement of load life above.							
	U_r (V)	4	6.3	10	16	25	35	50
Low temperature Stability Impedance Ratio(120Hz)	$Z(-25^{\circ}\text{C})/Z(+25^{\circ}\text{C})$	7	4	3	2	2	2	2
	$Z(-25^{\circ}\text{C})/Z(+25^{\circ}\text{C})$	15	8	6	4	4	3	3
Resistance to Soldering Heat	After reflow soldering according to Reflow Soldering temperature ,Profile and restored at room temperature, they meet the following requirement.							
	Capacitance Change	Within $\pm 10\%$ of the initial value						
	Dissipation Factor	Not more than the initial specified value						
	Leakage Current	Not more than the initial specified value						

Dimensions



	4X5.4	5X5.4	6.3X5.4	6.3X7.7	8X10.5	10X10.5
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.4	5.4	5.4	7.7	10.5	10.5
H	0.5-0.8				0.8-1.1	

Nominal capacitance, rated voltage, rated ripple current and case size table

V μF	4		6.3		10		16		25		35		50		
	DXL mm	I _r mA	DXL mm	I _r mA	DXL mm	I _r mA	DXL mm	I _r mA	DXL mm	I _r mA	DXL mm	I _r mA	DXL mm	I _r mA	
0.1													4X5.4	0.7	
0.22													4X5.4	1.6	
0.33													4X5.4	2.5	
0.47													4X5.4	3.5	
1.0													4X5.4	6.3	
2.2													4X5.4	11	
3.3												4X5.4	13	4X5.4	13
4.7									4X5.4	13	4X5.4	14	5X5.4	16	
10							4X5.4	18	5X5.4	20	5X5.4	21	6.3X5.4	24	
22			4X5.4	22	5X5.4	25	5X5.4	37	6.3X5.4	36	6.3X5.4	38	6.3X7.7	51	
33	4X5.4	18	5X5.4	27	5X5.4	30	6.3X5.4	40	6.3X5.4	44	6.3X5.4	42	6.3X7.7	60	
47	4X5.4	23	5X5.4	33	6.3X5.4	41	6.3X5.4	48	6.3X5.4	48	6.3X7.7	49	6.3X7.7	63	
100	5X5.4	42	6.3X5.4	50	6.3X5.4	53	6.3X5.4	60	6.3X7.7	91	6.3X7.7	84	8X10.5	155	
150	6.3X5.4	61	6.3X5.4	55	6.3X5.4	62	6.3X7.7	95	8X10.5	140	8X10.5	155	10X10.5	300	
220	6.3X5.4	68	6.3X7.7	105	6.3X7.7	105	6.3X7.7	105	8X10.5	175	8X10.5	300			
330	6.3X7.7	73	6.3X7.7	105	8X10.5	175	8X10.5	195	8X10.5	220					
470	6.3X7.7	105	8X10.5	170	8X10.5	210	8X10.5	310							
680	8X10.5	210		210	10X10.5	230	10X10.5	350							
1000	8X10.5	260	10X10.5	230											

Frequency coefficient of ripple current

Frequency	50Hz	120Hz	300Hz	1KHz	10KHz
Coefficient	0.70	1.00	1.17	1.36	1.50



Topmay PN	WV (V)	Cap. (uF)	Tolerance (%) 120Hz 20°C	DΦ* L	Leakage Current(uA)	Allowable ripple current(mA rms)at 105 °C,100KHz
TMCE24-105M50VT4R5.4	50	1	±20	4*5.4	3	6.3
TMCE24-107M35VT6.3R7.7	35	100	±20	6.3*7.7	35	84



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