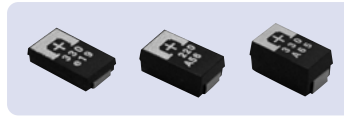


Conductive polymer type / Surface mount type

RoHS compliance

TA Series


High reliability
 (For the car electronics)

TA series are high reliability products that the heatresistance and moisture resistance are improved.

*Suitable for the industrial equipment or car electronics (e.g. Car navigation system).

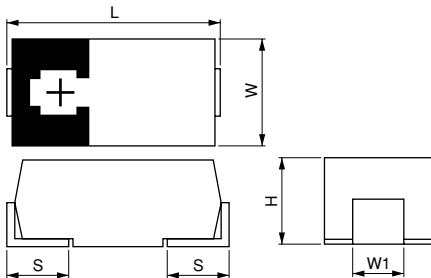


Specifications

Items	Condition	Specifications			
Rated voltage (V)	—	2.5	4.0	6.3	10
Surge voltage (V)	—	3.2	5.0	8.0	13
Category temperature range (°C)	—	-55 to +105			
Capacitance tolerance (%)	120Hz/20°C	M : ±20			
Rated capacitance range (μF)	120Hz/20°C	47 to 680			
Dissipation Factor (DF)	120Hz/20°C	Please see the attached characteristics list			
Leakage current	Rated voltage applied, after 5 minutes	Please see the attached characteristics list			
Equivalent series resistance (ESR)	100kHz/20°C	Please see the attached characteristics list			
Characteristics of impedance ratio at high temp. and low temp.	100kHz/+20°C	-55°C	Z/Z _{20°C}	0.6 to 2.0	
		+105°C	Z/Z _{20°C}	0.6 to 2.0	
Endurance	105°C, 2,000h, (B2 size : 1,000h) rated voltage applied	ΔC/C	Within±20% of the initial value		
		DF	≤ 1.5 times of the initial limit		
		LC	≤ 1.5 times of the initial limit		
Damp heat(Load)	85°C, 85%RH, 500h, rated voltage applied	ΔC/C	Within+40%, -20% of the initial value *1		
		DF	≤ 1.5 times of the initial limit		
		LC	≤ 1.5 times of the initial limit		
Damp heat(Steady state)	60°C, 90 to 95%RH, 500h, No-applied voltage	ΔC/C	Within+40%, -20% of the initial value *1		
		DF	≤ 1.5 times of the initial limit		
		LC	≤ 3 times of the initial limit		
Surge	105°C, 1,000 cycles, 1kΩ discharge resistance, surge voltage applied	ΔC/C	Within±5% of the initial value		
		DF	≤ The initial limit		
		LC	≤ 3 times of the initial limit		

*1 Within +50%, -20% of the initial value(2R5TAE470M(F), 2R5TAE330M(F,Z), 2R5TAE220M(F))

Dimensions



Size code	L ±0.3*2	W ±0.2	H ±0.2*1	S ±0.2	W1 ±0.1
B2	3.5	2.8	1.9	0.8	2.2
D2E	7.3	4.3	1.8	1.3	2.4
D3L	7.3	4.3	2.8	1.3	2.4

*1 ±0.1:D2E,B2 *2 ±0.2:B2

(unit: mm)

Size list

RV : Rated voltage

μF	RV 2.5	RV 4.0	RV 6.3	RV 10
47			B2	B2
68			B2	D2E
100		B2		
150			D2E	
220	D2E	D2E	D2E	D3L
330	D2E		D3L	
470	D2E	D3L		
680	D3L			

TA series characteristics list

Size code	Part number	Rated voltage (V)	Rated temperature (°C)	Rated capacitance (μF)	Category voltage (V)	Category temperature (°C)	DF (% max)	LC (μA) max/5min.	ESR (mΩmax) 100kHz/20°C	Maximum allowable ripple current (mArms) 100kHz*1	Reflow temp. ≤ 260°C	MSL Reflow temp. ≤ 250°C
B2	10TAB47M	10	105	47	10	105	8.0	47.0	70	1100	3	3
	6TAB68M	6.3	105	68	6.3	105	8.0	42.8	70	1100	3	3
	6TAB47M	6.3	105	47	6.3	105	8.0	29.6	70	1100	3	3
	4TAB100M	4.0	105	100	4.0	105	8.0	40.0	70	1100	3	3
D2E	10TAE68M	10	105	68	10	105	10.0	68	25	2400	3	3
	6TAE220M	6.3	105	220	6.3	105	10.0	138.6	25	2400	3	3
	6TAE220MI	6.3	105	220	6.3	105	10.0	138.6	18	2800	3	3
	6TAE150M	6.3	105	150	6.3	105	10.0	94.5	25	2400	3	3
	4TAE220M	4.0	105	220	4.0	105	10.0	88	25	2400	3	3
	4TAE220MI	4.0	105	220	4.0	105	10.0	88	18	2800	3	3
	2R5TAE470M	2.5	105	470	2.5	105	10.0	117.5	25	2400	3	3
	2R5TAE470MF	2.5	105	470	2.5	105	10.0	117.5	15	3100	3	3
	2R5TAE330M	2.5	105	330	2.5	105	10.0	82.5	25	2400	3	3
	2R5TAE330MI	2.5	105	330	2.5	105	10.0	82.5	18	2800	3	3
	2R5TAE330MF	2.5	105	330	2.5	105	10.0	82.5	15	3100	3	3
	2R5TAE220M	2.5	105	220	2.5	105	10.0	55	25	2400	3	3
2R5TAE220MF	2.5	105	220	2.5	105	10.0	55	15	3100	3	3	
D3L	10TAE220ML	10	105	220	10	105	10.0	220.0	25	2400	3	3
	6TAE330ML	6.3	105	330	6.3	105	10.0	207.9	25	2400	3	3
	4TAE470ML	4.0	105	470	4.0	105	10.0	188	25	2400	3	3
	4TAE470MIL	4.0	105	470	4.0	105	10.0	188	18	2800	3	3
	2R5TAE680ML	2.5	105	680	2.5	105	10.0	170	25	2400	3	3
	2R5TAE680MFL	2.5	105	680	2.5	105	10.0	170	15	3100	3	3

Please refer to page 71 for the compensation coefficient of maximum allowable ripple current.

*1 100k to 500kHz, 45°C