Surface mount type TA Series

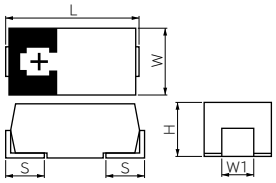
RoHS compliance, Halogen free
High reliability: 85℃85%RH rated voltage applied (warranty)
Power supply circuit of entertainment equipment for the car.

Specifications

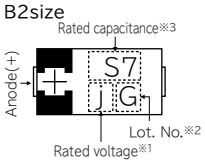
Items	Condition		Specifications			
Rated voltage (V)	–		2.5	4.0	6.3	10
Surge voltage (V)	–		2.9	4.6	7.2	12
Category temperature range(℃)	–		−55 to +105			
Capacitance tolerance (%)	120Hz/20℃		M : ±20			
Rated capacitance range (μF)	120Hz/20℃		47 to 680			
Dissipation Factor (DF)	120Hz/20℃		Please see the attached characteristics list			
Leakage current	Rated voltage applied, after 5 minutes		Please see the attached characteristics list			
Equivalent series resistance (ESR)	100kHz/20℃		Please see the attached characteristics list			
Characteristics of impedance ratio at high temp. and low temp.	100kHz/+20℃	−55℃ Z/Z20℃	0.6 to 2.0			
		+105℃ Z/Z20℃	0.6 to 2.0			
Endurance	105℃, 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	Within the initial limit			
Damp heat(Load)	85℃, 85 to 90%RH, 500h, rated voltage applied	ΔC/C	Within+40%,−20% of the initial value ※1			
		DF	≤ 1.5 times of the initial limit			
		LC	Within the initial limit			
Surge	105℃, 1,000 cycles, 1kΩ discharge resistance, surge voltage applied	ΔC/C	Within±5% of the initial value			
		DF	Within the initial limit			
		LC	≤ 3 times of the initial limit			

※1 Within +50%, −20% of the initial value(2R5TAE470M(F), 2R5TAE330M(F, I), 2R5TAE220M(F,9))

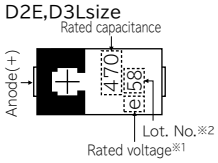
Marking and dimensions



B2size



D2E,D3Lsize



(unit : mm)

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

※1 The rated voltage is as follows.

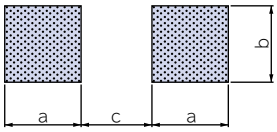
R.V.	2.5	4.0	6.3	10
Mark	e	g	j	A

※2 Lot.No.shows roughly manufacturing date.

※3 The rated capacitance is as follows.

Capacitance(μF)	47	68	100
Mark	S7	W7	A8

Recommended land pattern dimension of PWB



(unit : mm)

Size code	a	b	c
B2	1.6	2.7	1.4
D2E	2.4	2.9	3.7
D3L	2.4	2.9	3.7

Size list

RV:Rated voltage

μF \ RV	2.5	4.0	6.3	10.0
47			B2	B2
68			B2	D2E
100		B2		
150			D2E	D3L
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 (℃)	Rated capacitance (μF)	Category voltage (V)	Category temperature (℃)	DF (% max)	LC (μA) max/5min.	ESR (mΩmax) 100kHz/20℃	Maximum allowable ripple current (mArms) 100kHz※1	MSL Reflow temp. ≤ 260℃	MSL Reflow temp. ≤ 250℃
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	68.0	25	2400	3	3
	6TAE220M	6.3	105	220	6.3	105	10	138.6	25	2400	3	3
	6TAE220MI	6.3	105	220	6.3	105	10	138.6	18	2800	3	3
	6TAE150M	6.3	105	150	6.3	105	10	94.5	25	2400	3	3
	4TAE220M	4.0	105	220	4.0	105	10	88.0	25	2400	3	3
	4TAE220MI	4.0	105	220	4.0	105	10	88.0	18	2800	3	3
	2R5TAE470M	2.5	105	470	2.5	105	10	117.5	25	2400	3	3
	2R5TAE470MF	2.5	105	470	2.5	105	10	117.5	15	3100	3	3
	2R5TAE330M	2.5	105	330	2.5	105	10	82.5	25	2400	3	3
	2R5TAE330MI	2.5	105	330	2.5	105	10	82.5	18	2800	3	3
	2R5TAE330MF	2.5	105	330	2.5	105	10	82.5	15	3100	3	3
	2R5TAE220M	2.5	105	220	2.5	105	10	55.0	25	2400	3	3
	2R5TAE220MF	2.5	105	220	2.5	105	10	55.0	15	3100	3	3
	2R5TAE220M9	2.5	105	220	2.5	105	10	110.0	9	3900	3	3
D3L	10TAE220ML	10	105	220	10	105	10	220.0	25	2400	3	3
	10TAE150ML	10	105	150	10	105	10	150.0	25	2400	3	3
	6TAE330ML	6.3	105	330	6.3	105	10	207.9	25	2400	3	3
	4TAE470ML	4.0	105	470	4.0	105	10	188.0	25	2400	3	3
	4TAE470MIL	4.0	105	470	4.0	105	10	188.0	18	2800	3	3
	2R5TAE680ML	2.5	105	680	2.5	105	10	170.0	25	2400	3	3
	2R5TAE680MFL	2.5	105	680	2.5	105	10	170.0	15	3100	3	3

※1 100k to 500kHz,45℃