TA series High Reliability Products (For The Car Electronics)

Feature

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

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

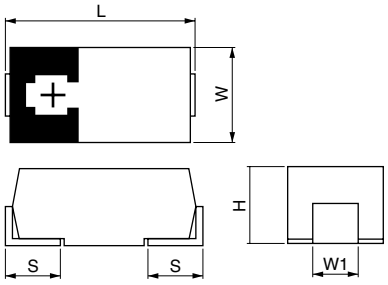
Specifications

Items	Condition	Characteristics		
Operating Temperature range	—	–55 to +105 (°C)		
Rated capacitance range	120Hz/20°C	68 to 680 (μF)		
Capacitance tolerance	120Hz/20°C	M:±20%		
Rated voltage	—	2.5 to 10 (V.DC)		
Dissipation Factor (D.F.)	120Hz/20°C	10.0 (%)		
Leakage current	Rated voltage applied, after 5 minutes	≤ 0.1CV (μA)		
Equivalent series resistance (E.S.R. mΩmax.)	100kHz/20°C	Please see the attached characteristics list		
Temperature characteristics of Impedance ratio	100kHz/+20°C	–55°C	$Z/Z_{20°C}$	1.0 to 2.0
		+105°C	$Z/Z_{20°C}$	0.6 to 1.0
Endurance	105°C,2000h, rated voltage applied	ΔC/C		Within±20% of the initial value
		D.F.		≤ 1.5 times the initial limit
		L.C.		≤ The initial limit
Damp heat (Load)	85°C, 85%RH, 500h, rated voltage applied	ΔC/C		Within+40%, –20% of the initial value ★1
		D.F.		≤ 1.5 times the initial limit
		L.C.		≤ The initial limit
Damp heat (Steady state)	60°C,90 to 95%RH,500h, No voltage applied	ΔC/C		Within+40%, –20% of the initial value ★1
		D.F.		≤ 1.5 times the initial limit
		L.C.		≤ 3 times the initial limit
Surge	105°C,1000 cycles, 1kΩdischarge resistance, surge voltage applied	ΔC/C		Within±5% of the initial value
		D.F.		≤ The initial limit
		L.C.		≤ 3 times the initial limit

★1 Within +50%, –20% of the initial value(2R5TAE470M(F,C), 2R5TAE330M(F,C), 2R5TAE220M(F,C))

Dimensions

(unit: mm)



Size code	L (±0.3)	W (±0.2)	H★1 (±0.2)	S (±0.2)	W1 (±0.1)
D2E	7.3	4.3	1.8	1.3	2.4
D3L	7.3	4.3	2.8	1.3	2.4
D4	7.3	4.3	3.8	1.3	2.4

★1 ±0.1:D2E

Size List

μF \ RV (SV)	2.5	4	6.3	10
68				D2E
150			D2E	D3L
220	D2E	D2E	D2E	D4
330	D2E	D3L	D3L	
470	D2E	D3L		
680	D3L			

Characteristics List

Size code	SANYO Part number	Rated Voltage (V)	Rated Temperature (°C)	Rated Capacitance (μF)	D.F. (%max.)	L.C. (μA) max./5min.	E.S.R. (mΩmax.) 100kHz/20°C	Maximum allowable ripple current (mArms)100kHz★1	MSL Reflow Temp. ≤ 260°C	MSL Reflow Temp. ≤ 250°C
D2E	2R5TAE470M	2.5	105	470	10.0	117.5	25	2400	3	3
	2R5TAE470MF						15	3100		
	2R5TAE470MC						12	3500		
	2R5TAE330M	2.5	105	330	10.0	82.5	25	2400		
	2R5TAE330MF						15	3100		
	2R5TAE330MC						12	3500		
	2R5TAE220M	2.5	105	220	10.0	55	25	2400		
	2R5TAE220MF						15	3100		
	2R5TAE220MC						12	3500		
	4TAE220M	4.0	105	220	10.0	88	25	2400		
	4TAE220MI						18	2800		
	6TAE220M	6.3	105	220	10.0	138.6	25	2400		
	6TAE220MI						18	2800		
	6TAE150M	6.3	105	150	10.0	94.5	25	2400		
	10TAE68M	10.0	105	68	10.0	68	25	2400		
D3L	2R5TAE680ML	2.5	105	680	10.0	170	25	2400		
	2R5TAE680MFL						15	3100		
	4TAE470ML	4.0	105	470	10.0	188	25	2400		
	4TAE470MIL						18	2800		
	4TAE330ML	4.0	105	330	10.0	132	25	2400		
	6TAE330ML	6.3	105	330	10.0	207.9	25	2400		
	10TAE150ML	10.0	105	150	10.0	150	25	2400		
D4	10TAE220MZ	10.0	105	220	15.0	220	35	2500		

★1 100k to 500kHz,45°C