

# TPE Series Low ESR Products (C3,C2,B2 Size)

## Feature

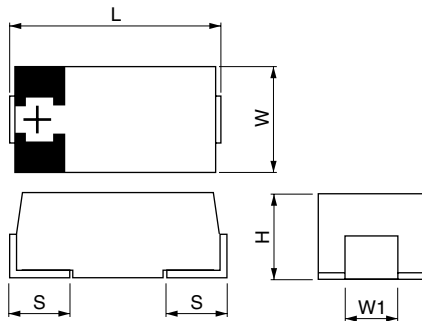
This products is the miniaturized version of TPE series.



## Specifications

Items	Condition	Characteristics		
Operating Temperature range	—	-55 to +105 (°C)		
Rated capacitance range	120Hz/20°C	100 to 330 (μF)		
Capacitance tolerance	120Hz/20°C	M:±20%		
Rated voltage	—	2.5 to 8.0 (V.DC)		
Dissipation Factor (D.F.)	120Hz/20°C	≤ 8.0 (%)		
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 <sub>20°C</sub>	1.0 to 2.0
		+105°C	Z/Z <sub>20°C</sub>	0.6 to 1.0
Endurance	105°C,2000h,(B2size:1000h) rated voltage applied *Rated temp. 85°C products: 85°C,1000h, 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 (Steady state)	60°C,90 to 95%RH,500h, No voltage applied	ΔC/C	Within+50%, -20% of the initial value (2R5TPE220MAZB, 2R5TPE220MAFB,2R5TPE330MFC2 (CC2)) Within+40%, -20% of the initial value (Except for the above model)	
		D.F.	≤ 1.5 times the initial limit	
		L.C.	≤ 3 times the initial limit	
Surge	105°C,1000 times,1kΩdischarge resistance,surge voltage applied *2R5TPE220MAZB,4TPE150MAZB, 6TPE100MAZB:85°C	ΔC/C	Within±5% of the initial value	
		D.F.	≤ The initial limit	
		L.C.	≤ 3 times the initial limit	

## Dimensions



(unit: mm)

Size code	L (±0.2)	W (±0.2)	H*1 (±0.1)	S (±0.2)	W1 (±0.1)
B2	3.5	2.8	1.9	0.8	2.2
C2	6.0	3.2	1.8	1.3	1.8
C3	6.0	3.2	2.5	1.3	1.8

\*1 ±0.2:C3

## Size List

RV (SV) μF	2.5 (3.2)	4.0 (5.0)	6.3 (8.0)	8.0 (10.0)
100		B2	B2	C2
120			B2	
150	B2	B2	B2,C2,C3	
220	B2	B2,C2,C3		
330	B2,C2,C3			

## Characteristics List

(Rated Temperature 105°C products)

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 (mA rms) 100kHz*1	MSL	
									Reflow Temp. ≤ 260°C	Reflow Temp. ≤ 250°C
B2	4TPE100MZB	4.0	105	100	8.0	40.0	35	1400	3	3
	2R5TPE220MZB									
	2R5TPE220MPB	2.5	105	220	8.0	55.0	25	1600		
	2R5TPE220MLB									
	2R5TPE150MZB	2.5	105	150	8.0	37.5	35	1400		
C2	8TPE100MPC2	8.0	105	100	8.0	80.0	25	2200		
	6TPE150MPC2	6.3	105	150	8.0	94.5	25	2200		
	6TPE150MIC2						18	2600		
	4TPE220MIC2	4.0	105	220	8.0	88.0	18	2600		
	4TPE220MFC2						15	2900		
	2R5TPE330MFC2	2.5	105	330	8.0	82.5	15	2900		
	2R5TPE330MCC2						12	3300		
C3	6TPE150MPC	6.3	105	150	8.0	94.5	25	2400		
	4TPE220MPC	4.0	105	220	8.0	88.0	25	2400		
	4TPE220MIC						18	2800		
	2R5TPE330MPC	2.5	105	330	8.0	82.5	25	2400		
	2R5TPE330MIC						18	2800		
	2R5TPE330MFC						15	3100		

\*1 100k to 500kHz, 45°C

(Rated Temperature 85°C products)

Size code	SANYO Part number	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	Rated Capacitance (μF)	D.F. (%max.)	L.C. (μA) max./5min.	E.S.R. (mΩmax.) 100kHz/20°C	Maximum allowable ripple current (mA rms) 100kHz*1	MSL	
											Reflow Temp. ≤ 260°C	Reflow Temp. ≤ 250°C
B2	6TPE150MAZB	6.3	85	5.0	105	150	8.0	94.5	35	1400	3	3
	6TPE120MAZB	6.3	85	5.0	105	120	8.0	75.6	35	1400		
	6TPE100MAZB	6.3	85	5.0	105	100	8.0	63.0	35	1400		
	4TPE220MAZB	4.0	85	3.2	105	220	8.0	88.0	35	1400		
	4TPE150MAZB	4.0	85	3.2	105	150	8.0	60.0	35	1400		
	4TPE150MAUB								30	1500		
	2R5TPE330MAZB	2.5	85	2.0	105	330	8.0	82.5	35	1400		
	2R5TPE220MAZB	2.5	85	2.0	105	220	8.0	55.0	35	1400		
	2R5TPE220MAPB								25	1600		

\*1 100k to 500kHz, 45°C