

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

## Feature

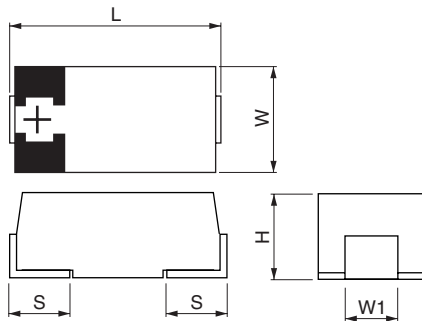
This products is the miniaturized version of TPE series.



## Specifications

Items	Condition	Characteristics		
Operating Temperature range	—	-55 to +105 (°C)		
Rated capacitance range	120Hz/20°C	47 to 330 (μF)		
Capacitance tolerance	120Hz/20°C	M:±20%		
Rated voltage	—	2.5 to 10.0 (V.DC)		
Dissipation Factor (D.F.)	120Hz/20°C	≤ 8.0 (%)		
Leakage current	Rated voltage applied, after 5 minutes	Please see the attached characteristics list		
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,2R5TPE330MAZB, 2TPE330MIB (MAFB,MAFGB),2R5TPE220MAPB,2R5TPE330MFC2 (CC2,9C2)) 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 *Rated temp 85°C products: 85°C,1000 times	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	2.0 (2.6)	2.5 (3.2)	4.0 (5.0)	6.3 (8.0)	8.0 (10.0)	10.0 (13.0)
47						B2
100			B2	B2	C2	
120				B2		
150		B2	B2	B2,C2,C3		C3
220		B2	B2,C2,C3	C3		
330	B2	B2,C2,C3				

## Characteristics List

Size code	SANYO Part number	Rated Voltage (V)	Rated Temperature (°C)	Rated Capacitance (μF)	Category Voltage (V)	Category Temperature (°C)	D.F. (%max.)	L.C. (μA) max./5min.	E.S.R. (mΩmax.) 100kHz/20°C	Maximum allowable ripple current (mA) 100kHz*1	MSL	
											Reflow Temp ≤ 260°C	Reflow Temp ≤ 250°C
B2	10TPE47MAZB	10.0	85	47	8.0	105	8.0	47.0	35	1400	3	3
	6TPE150MAZB	6.3	85	150	5.0	105	8.0	94.5	35	1400		
	6TPE120MAZB	6.3	85	120	5.0	105	8.0	75.6	35	1400		
	6TPE100MZB*2	6.3	105	100	6.3	105	8.0	63.0	35	1400		
	6PTE100MPB*2								25	1600		
	6TPE100MAZB	6.3	85	100	5.0	105	8.0	63.0	35	1400		
	6PTE100MAPB*2	6.3	85	100	5.0	105	8.0	63.0	25	1600		
	4TPE220MAZB	4.0	85	220	3.2	105	8.0	88.0	35	1400		
	4TPE150MAZB	4.0	85	150	3.2	105	8.0	60.0	35	1400		
	4TPE150MAUB								30	1500		
	4TPE100MZB	4.0	105	100	4.0	105	8.0	40.0	35	1400		
	2R5TPE330MAZB	2.5	85	330	2.0	105	8.0	82.5	35	1400		
	2R5TPE220MZB	2.5	105	220	2.5	105	8.0	55.0	35	1400		
	2R5TPE220MPB								25	1600		
	2R5TPE220MLB								21	1700		
	2R5TPE220MIB	2.5	105	220	2.5	105	8.0	110.0	18	1800		
	2R5TPE220MFB								15/300k	1800		
	2R5TPE220MAFB*2	2.5	85	220	2.0	105	8.0	110.0	15	2000		
	2R5TPE220MAZB	2.5	85	220	2.0	105	8.0	55.0	35	1400		
	2R5TPE220MAPB								25	1600		
2R5TPE150MZB	2.5	105	150	2.5	105	8.0	37.5	35	1400			
2TPE330MIB	2.0	105	330	2.0	105	8.0	132.0	18	1800			
2TPE330MAFGB	2.0	85	330	1.6	105	8.0	132.0	15/300k	1800			
2TPE330MAFB*2								15	2000			
C2	8TPE100MPC2	8.0	105	100	8.0	105	8.0	80.0	25	2200	3	3
	6TPE150MPC2	6.3	105	150	6.3	105	8.0	94.5	25	2200		
	6TPE150MIC2								18	2600		
	4TPE220MIC2	4.0	105	220	4.0	105	8.0	88.0	18	2600		
	4TPE220MFC2								15	2900		
	2R5TPE330MFC2	2.5	105	330	2.5	105	8.0	82.5	15	2900		
	2R5TPE330MCC2								12	3300		
	2R5TPE330M9C2								9	3700		
C3	10TPE150MGC	10.0	105	150	10.0	105	10.0	150.0	55	1500	(*3)	3
	6TPE220MPC	6.3	105	220	6.3	105	8.0	138.6	25	2400		
	6TPE150MPC	6.3	105	150	6.3	105	8.0	94.5	25	2400		
	4TPE220MPC	4.0	105	220	4.0	105	8.0	88.0	25	2400		
	4TPE220MIC								18	2800		
	2R5TPE330MPC	2.5	105	330	2.5	105	8.0	82.5	25	2400		
	2R5TPE330MIC								18	2800		
	2R5TPE330MFC								15	3100		

\*1 100k to 500kHz, 45°C \*2 Under development \*3 Under evaluation