

# TPC Series Low Profile Products

## Feature

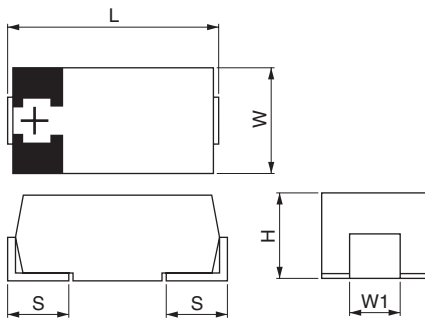
TPC series has low profile and low ESR. TPC series aids in the miniaturization of any products.



## Specifications

Items	Condition	Characteristics		
Operating Temperature range	—	-55 to +105 (°C)		
Rated capacitance range	120Hz/20°C	33 to 330 (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	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, rated voltage applied C1 size:1000h *Rated temp. 85°C products: 85°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 (Steady state)	60°C,90 to 95%RH,500h, No voltage applied	ΔC/C	Within+40%, -20% of the initial value	
		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 *6TPC330M: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 (±0.1)	S (±0.2)	W1 (±0.1)
C1	6.0	3.2	1.4	1.3	1.8
D2	7.3	4.3	1.9	1.3	2.4

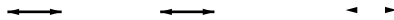
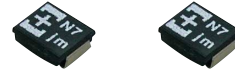
## Size List

μF	RV (SV)	2.5 (3.2)	4.0 (5.0)	6.3 (8.0)	8.0 (10.0)	10.0 (13.0)
33					C1	
56			C1			
68				C1		D2
82		C1				
100			C1	D2,C1		D2
150			D2	D2	D2	
220		D2	D2			
330		D2		D2		

## 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 rms) 100kHz*1	MSL	
											Reflow Temp. ≤ 260°C	Reflow Temp. ≤ 250°C
C1	8TPC33M	8.0	105	33	8.0	105	10.0	26.4	70	1200	3	3
	6TPC100MC	6.3	85	100	5.0	105	10.0	63.0	55	1300		
	6TPC68M	6.3	105	68	6.3	105	10.0	42.8	55	1300		
	4TPC100M	4.0	105	100	4.0	105	10.0	40.0	55	1300		
	4TPC56M	4.0	105	56	4.0	105	10.0	22.4	70	1200		
	2R5TPC82M	2.5	105	82	2.5	105	10.0	20.5	70	1200		
D2	10TPC100M	10.0	105	100	10.0	105	10.0	100.0	45	1700	3	2a
	10TPC68M	10.0	105	68	10.0	105	10.0	68.0	45	1700		
	8TPC150M	8.0	105	150	8.0	105	10.0	120.0	40	1900		
	6TPC330MA	6.3	85	330	5.0	105	10.0	207.9	40	1900		
	6TPC150M	6.3	105	150	6.3	105	10.0	94.5	40	1900		
	6TPC100M	6.3	105	100	6.3	105	10.0	63.0	45	1700		
	4TPC220M	4.0	105	220	4.0	105	10.0	88.0	40	1900		
	4TPC150M	4.0	105	150	4.0	105	10.0	60.0	45	1700		
	2R5TPC330M	2.5	105	330	2.5	105	10.0	82.5	40	1900		
	2R5TPC220M	2.5	105	220	2.5	105	10.0	55.0	45	1700		

\*1 100k to 500kHz, 45°C



(unit: mm)

Size code	L (±0.2)	W (±0.2)	H (±0.1)	S (±0.2)	W1 (±0.1)
B1	3.5	2.8	1.1	0.8	2.2

RV ( <sub>SV</sub> )	2.5 (3.2)	4.0 (5.0)	6.3 (8.0)	8.0 (10.0)	10.0 (13.0)	12.5 (16.0)
10						B1
15						B1
22				B1		
33			B1		B1	
47		B1	B1			
56	B1					

## 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 <sub>RMS</sub> ) 100kHz*1	MSL	
											Reflow Temp. ≤ 260°C	Reflow Temp. ≤ 250°C
B1	12TPC15M	12.5	85	15	10.0	105	10.0	18.8	80	800	3	3
	12TPC10M	12.5	85	10	10.0	105	10.0	12.5	80	800		
	10TPC33MB	10.0	85	33	8.0	105	10.0	33.0	70	1000		
	8TPC22M	8.0	85	22	6.3	105	10.0	17.6	70	1000		
	6TPC47MB	6.3	85	47	5.0	105	10.0	29.6	70	1000		
	6TPC33M	6.3	85	33	5.0	105	10.0	20.8	70	1000		
	4TPC47M	4.0	85	47	3.2	105	10.0	18.8	70	1000		
	2R5TPC56M	2.5	85	56	2.0	105	10.0	14.0	70	1000		

\*1 100k to 500kHz,45°C