

TPD Series Low ESR · High Capacitance Products

Feature

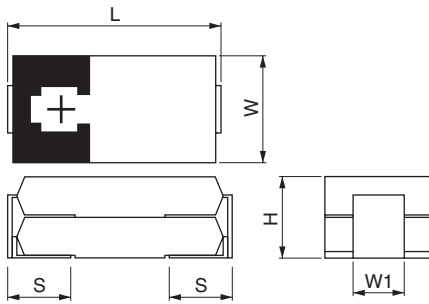
TPD series has low ESR and high capacitance. It is the most suitable for the high frequency and high current switching power supply applications.



Specifications

Items	Condition	Characteristics		
Operating Temperature range	—	-55 to +105 (°C)		
Rated capacitance range	120Hz/20°C	470 to 1000 (μF)		
Capacitance tolerance	120Hz/20°C	M:±20%		
Rated voltage	—	2.5 to 6.3 (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 _{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 (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, 1kΩ discharge resistance, surge voltage applied	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 (±0.3)	W (±0.2)	H (±0.2)	S (±0.2)	W1 (±0.1)
D4D	7.3	4.3	3.6	1.3	2.4

Size List

RV (V)	2.5 (3.2)	4.0 (5.0)	6.3 (8.0)
470	D4D		D4D
680	D4D	D4D	
1000	D4D		

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	
D4D	6TPD470M	6.3	105	470	6.3	105	10.0	296.1	10	4400	3	2a	
	4TPD680M	4.0	105	680	4.0	105	10.0	272.0	10	4400			
	2R5TPD1000M	2.5	105	1000	2.5	105	10.0	250.0	max./5min.	10			4400
	2R5TPD1000M8									8			4900
	2R5TPD1000M6									6			5600
	2R5TPD1000M5									5			6100
	2R5TPD680M6									6			5600
	2R5TPD680M5	5	6100										
	2R5TPD470M6	2.5	105	470	2.5	105	10.0	117.5	max./5min.	6			5600
	2R5TPD470M5									5			6100

*1 100k to 500kHz, 45°C