

TPD Series Low ESR · High Capacitance Products

Feature

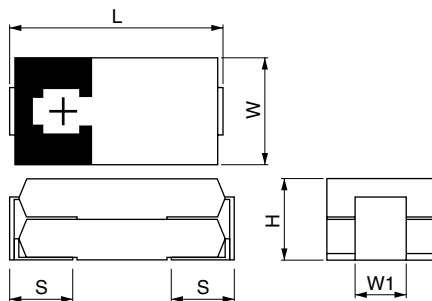
TPD series has low ESR and high capacitance. It is the most suitable for the high frequency and high current switching power supply applications.



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	≤ 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 (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

μF	RV (sV)	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)	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	Reflow Temp. ≤ 250°C
D4D	6TPD470M	6.3	105	470	10.0	296.1	10	4400	3	2a
	4TPD680M	4.0	105	680	10.0	272.0	10	4400		
	2R5TPD1000M	2.5	105	1000	10.0	250.0	10	4400		
	2R5TPD1000M8						8	4900		
	2R5TPD1000M6						6	5600		
	2R5TPD1000M5						5	6100		
	2R5TPD680M6						6	5600		
	2R5TPD680M5	2.5	105	680	10.0	170.0	5	6100		
	2R5TPD470M6	2.5	105	470	10.0	117.5	6	5600		
	2R5TPD470M5						5	6100		

*1 100k to 500kHz, 45°C