

Conductive polymer type / Surface mount type

RoHS compliance

TPSF Series



Low ESR · Small size · High capacitance

Face down terminal type

TPSF series achieved small size, high capacitance and low ESR.

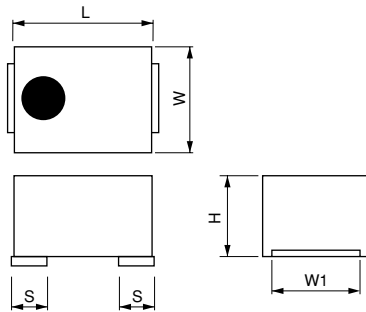
TPF →

TPSF
Small size

Specifications

Items	Condition	Specifications	
Rated voltage (V)	—	2.0	10
Surge voltage (V)	—	2.6	13
Category temperature range (°C)	—	-55 to +105	
Capacitance tolerance (%)	120Hz/20°C	M : ±20	
Rated capacitance range (μF)	120Hz/20°C	62 , 270	
Dissipation Factor (DF)	120Hz/20°C	Please see the attached characteristics list	
Leakage current	Rated voltage applied, after 5 minutes	Please see the attached characteristics list	
Equivalent series resistance (ESR)	100kHz/20°C	Please see the attached characteristics list	
Characteristics of impedance ratio at high temp. and low temp.	100kHz/+20°C	-55°C Z/Z _{20°C}	0.6 to 2.0
		+105°C Z/Z _{20°C}	0.6 to 2.0
Endurance	105°C, 1,000h, rated voltage applied	ΔC/C	Within ±20% of the initial value
		DF	≤ 1.5 times of the initial limit
		LC	≤ 1.5 times of the initial limit
Damp heat (Steady State)	60°C, 90 to 95%RH, 500h, No-applied voltage	ΔC/C	Within +40%, -20% of the initial value
		DF	≤ 1.5 times of the initial limit
		LC	≤ 3 times of the initial limit
Surge	105°C, 1,000 cycles, 1kΩ discharge resistance, surge voltage applied	ΔC/C	Within ±5% of the initial value
		DF	≤ The initial limit
		LC	≤ 3 times of the initial limit

Dimensions



(unit: mm)

Size code	L ±0.2	W ±0.2	H ±0.1	S ±0.2	W1 ±0.1
B2S	3.5	2.8	1.9	0.8	2.2

Size list

RV : Rated voltage

μF	RV	2.0	10
62			B2S
270		B2S	

TPSF series characteristics list

Size code	Part number	Rated voltage (V)	Rated temperature (°C)	Rated capacitance (μF)	Category voltage (V)	Category temperature (°C)	DF (% max)	LC (μA) max/5min.	ESR (mΩmax) 100kHz/20°C	Maximum allowable ripple current (mA _{RMS}) 100kHz ^{※1}	MSL	
											Reflow temp. ≤ 260°C	Reflow temp. ≤ 250°C
B2S	10TPSF62MI ^{※2}	10	105	62	10	105	8.0	124	18	1800	3	3
	2TPSF270M9G	2.0	105	270	2.0	105	8.0	108	9/300kHz	2400	3	3

Please refer to page 71 for the compensation coefficient of maximum allowable ripple current.

^{※1} 100k to 500kHz, 45°C

^{※2} Under development