



RoHS compliance, Halogen free
 Ultra low ESL: 0.7nH
 Ultra low ESR: 6mΩ *at 500kHz
 Face down terminal type

Specifications

Items	Condition		Specifications	
Rated voltage (V)	-		2.0	2.5
Surge voltage (V)	-		2.3	2.9
Category temperature range (°C)	-		-55 to +105	
Capacitance tolerance (%)	120Hz/20°C		M : ±20	
Rated capacitance range (μF)	120Hz/20°C		200 to 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 ※Rated temp, 85°C Products: 85°C, 1,000h, rated voltage applied	ΔC/C		Within±20% of the initial value
		DF		≤ 1.5 times of the initial limit
		LC		Within 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 ※Rated temp, 85°C Products: 85°C	ΔC/C		Within±5% of the initial value
		DF		Within the initial limit
		LC		≤ 3 times of the initial limit

Marking and dimensions

(unit : mm)

Size code	L ±0.2	W ±0.2	H ±0.1	S ±0.3	W1 ±0.1
B1S	3.5	2.8	1.1	0.8	2.2
B2S	3.5	2.8	1.9	0.8	2.2

Rated voltage*1

Rated capacitance*3

Lot. No.*2

※1 The rated voltage is as follows.

R.V.	2.0	2.5
Mark	d	e

※2 Lot.No.shows roughly manufacturing date.

※3 The rated capacitance is as follows.

Capacitance(μF)	200	270
Mark	H8	L8

Recommended land pattern dimension of PWB

(unit : mm)

Size code	a	b	c
B1S	1.6	2.7	1.4
B2S	1.6	2.7	1.4

Size list

RV:Rated voltage

RV	2.0	2.5
μF		
200		B1S
270	B2S	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	ESL (nHmax) *Typical value	Maximum allowable ripple current (mA rms) 100kHz*1	MSL Reflow temp. < 260°C	Reflow temp. < 250°C
B1S	ETPSF200M9ED*2	2.5	105	200	2.5	105	8.0	100	9/500kHz	0.7	2400	5	5
B2S	ETPSF270M6E*2	2.5	105	270	2.5	105	10	135	6/500kHz	0.7	3200	3	3
	2TPSF270M9G	2.0	105	270	2.0	105	8.0	108.0	9/300kHz	0.7	2400	3	3
	2TPSF270M6E	2.0	105	270	2.0	105	8.0	108.0	6/500kHz	0.7	3200	5	5

※1 100k~500kHz,45°C ※2 Under development