Surface Mount Type

POSCAP

Series : **TPE**
Size : **B**

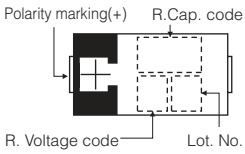
Features

- Small size (L 3.5×W 2.8×H 1.9 mm)
- Low ESR (15 mΩ)
- RoHS compliance, Halogen free

Specifications

Size code	B2	
Category temperature range	–55 °C to +105 °C	
Rated voltage range	2.0 V.DC to 10 V.DC	
Category voltage range	1.8 V.DC to 8.0 V.DC	
Rated capacitance range	47 µF to 470 µF	
Capacitance tolerance	±20 % (120 Hz / + 20 °C)	
Leakage current	Please see the attached characteristics list	
Dissipation factor (tan δ)	Please see the attached characteristics list	
Surge voltage (V.DC)	Rated voltage × 1.15	
Endurance	+105 °C, 1000 h rated voltage applied ✻ Rated temp, +85 °C Products : +85 °C, 1000 h, rated voltage applied	
	Capacitance change	Within ±20 % of the initial value
	tan δ	≦ 1.5 times of the initial limit
	DC leakage current	Within the initial limit
Damp heat (Steady State)	+60 °C, 90 % to 95 %, 500 h, No-applied voltage	
	Capacitance change	Within +50 %, –20 % of the initial value (2R5TPE220MAZB (MAPB, MAFB), 2R5TPE330MAZB, 2TPE330MAFB (MADGB), 2TPE470MAJGB (MAFB), 2TPE330MFB)
		Within +40 %, –20 % of the initial value (Except for above model)
	tan δ	≦ 1.5 times of the initial limit
	DC leakage current	≦ 3 times of the initial limit

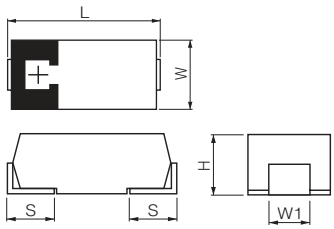
Marking



R. Voltage (V.DC)	2.0	2.5	4.0	6.3	8.0	10.0
Code	d	e	g	j	k	A

R. Cap. (µF)	47	100	120	150	220	330	470
Code	S7	A8	C8	E8	J8	N8	S8

Dimensions (not to scale)



Unit : mm

Size code	L±0.2	W±0.2	H±0.1	S±0.2	W1±0.1
B2	3.5	2.8	1.9	0.8	2.2

✻ Externals of figure are the reference.

Characteristics list

Series	Rated voltage (V.DC)	Rated temp. (°C)	Category voltage (V.DC)	Category temp. (°C)	Rated capacitance (µF)	Case size (mm) L	W	H	Size code	Specifications Ripple *1 current (mArm.s.)	ESR *2 (mΩ max.)	tan δ *3	LC *4 (µA)	Standard Part number	Min. Packaging Q'ty (pcs)
TPE	2	105	2.0	105	330	3.5	2.8	1.9	B2	2000	15	0.08	132.0	2TPE330MFB	2000
		85	1.8	105		3.5	2.8	1.9		2000	15	0.08	132.0	2TPE330MAFB	2000
		85	1.8	105		3.5	2.8	1.9		2000	13/300 kHz	0.10	132.0	2TPE330MADGB	2000
		85	1.8	105	470	3.5	2.8	1.9		2300	15	0.10	188.0	2TPE470MAFB	2000
		85	1.8	105		3.5	2.8	1.9		2300	11/300 kHz	0.08	188.0	2TPE470MAJGB	2000
	2.5	85	2.0	105	220	3.5	2.8	1.9		2000	15	0.08	110.0	2R5TPE220MAFB	2000
		105	2.5	105		3.5	2.8	1.9		1800	15/300 kHz	0.08	110.0	2R5TPE220MFGB	2000
		105	2.5	105		3.5	2.8	1.9		1700	21	0.08	55.0	2R5TPE220MLB	2000
		85	2.0	105		3.5	2.8	1.9		1600	25	0.08	55.0	2R5TPE220MAPB	2000
		105	2.5	105		3.5	2.8	1.9		1400	35	0.08	55.0	2R5TPE220MZB	2000
		85	2.0	105		3.5	2.8	1.9		1400	35	0.08	55.0	2R5TPE220MAZB	2000
		85	2.0	105	330	3.5	2.8	1.9		1400	35	0.08	82.5	2R5TPE330MAZB	2000
	NEW	85	2.5	105		3.5	2.8	1.9		3200	9/300 kHz	0.08	165.0	ETPE330MA9GB	2000
	4	105	4.0	105	100	3.5	2.8	1.9		1400	35	0.08	40.0	4TPE100MZB	2000
		85	3.2	105	150	3.5	2.8	1.9		1400	35	0.08	60.0	4TPE150MAZB	2000
		85	3.2	105	220	3.5	2.8	1.9		1400	35	0.08	88.0	4TPE220MAZB	2000
	6.3	105	6.3	105	100	3.5	2.8	1.9		1600	25	0.08	63.0	6TPE100MPB	2000
		85	5.0	105		3.5	2.8	1.9		1400	35	0.08	63.0	6TPE100MAZB	2000
		NEW 105	6.3	105		3.5	2.8	1.9		1400	35	0.08	63.0	6TPE100MZB	2000
		85	5.0	105	120	3.5	2.8	1.9		1400	35	0.08	75.6	6TPE120MAZB	2000
		85	5.0	105	150	3.5	2.8	1.9		1600	25	0.08	94.5	6TPE150MAPB	2000
		85	5.0	105		3.5	2.8	1.9		1400	35	0.08	94.5	6TPE150MAZB	2000
		85	5.0	105	220	3.5	2.8	1.9		1400	35	0.10	138.6	6TPE220MAZB	2000
	8	85	6.3	105	100	3.5	2.8	1.9		1400	35	0.08	80.0	8TPE100MAZB	2000
	10	85	8.0	105	47	3.5	2.8	1.9		1400	35	0.08	47.0	10TPE47MAZB	2000

✻1 Ripple current (100 kHz/ +45 °C), ✻2 ESR (100 kHz/+20 °C) ✻3 tan δ (120 Hz/+20 °C) ✻4 After 5 minutes

◆ Please refer to each page in this catarog for “Reflow conditions” and “Taping specifications”.