

## Surface Mount Type **POSCAP**

Series : **TPG**



### Features

- Small size, Low profile (L3.5 × W 2.8 × H 1.1 mm)
- Large capacitance (220 μF max.)
- RoHS compliance, Halogen free

### Specifications

Size code	B1G	B15G
Category temperature range	-55 °C to +105 °C	
Rated voltage range	2.5 V.DC to 12.5 V.DC	2.5 V.DC to 6.3 V.DC
Category voltage range	2.0 V.DC to 10.0 V.DC	2.0 V.DC to 5.0 V.DC
Rated capacitance range	33 μF to 220 μF	150 μF to 220 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	+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 +40 %, -20 % of the initial value
	tan δ	≤ 1.5 times of the initial limit
	DC leakage current	≤ 3 times of the initial limit

### Marking

R. Voltage (V.DC)	2.5	4.0	6.3	8.0	10.0	12.5
Code	e	g	j	k	A	B
R. Cap. (μF)	33	47	100	150	220	
Code	N7	S7	A8	E8	J8	

### Dimensions (not to scale)

Size code	L <sup>+0.3</sup> <sub>-0.1</sub>	W <sup>+0.3</sup> <sub>-0.1</sub>	H±0.1	S±0.2	W1±0.1
B1G	3.5	2.8	1.1	0.8	2.2
B15G	3.5	2.8	1.4	0.8	2.2

Unit : mm

\* 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)			Size code	Specifications				Standard		Floor life	
						L	W	H		Ripple* <sup>1</sup> current (mA.r.m.s.)	ESR* <sup>2</sup> (mΩ max.)	tan δ* <sup>3</sup>	LC* <sup>4</sup> (μA)	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤260°C	Reflow Temp ≤250°C
TPG	2.5	85	2.0	105	220	3.5	2.8	1.1	B1G	1000	70	0.10	55.0	2R5TPG220M	2500	3	3
										1400	30/300 kHz	0.10	110.0	2R5TPG220MUG	2500		
	4	85	3.2	105	220	3.5	2.8	1.4	B15G	1000	70	0.10	88.0	4TPG220M	2500		
										6.3	85	5.0	105	100	3.5		
	1100	55	0.10	63.0	6TPG100MG	2500											
	6.3	85	5.0	105	150	3.5	2.8	1.4	B15G	1200	35/300 kHz	0.10	126.0	6TPG100MZGD	2500		
										1000	70	0.10	94.5	6TPG150M	2500		
	6.3	85	5.0	105	150	3.5	2.8	1.4	B15G	1200	35/300 kHz	0.10	189.0	6TPG150MZG	2500		
										1000	70	0.10	37.6	8TPG47M	2500		
	8	85	6.3	105	47	3.5	2.8	1.1	B1G	1000	70	0.10	47.0	10TPG47M	2500		
	10	85	8.0	105	47	3.5	2.8	1.1	B1G	1000	70	0.10	41.3	12TPG33M	2500		
	12.5	85	10.0	105	33	3.5	2.8	1.1	B1G	1000	70	0.10	41.3	12TPG33M	2500		

\*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 catalog for "Reflow conditions" and "Taping specifications".

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