



RoHS compliance, Halogen free

Small size, Low profile: L3.5xW2.8xH1.1mm (B1G)

Large capacitance: 6.3V220 μ F (B15G)

Specifications

Items	Condition	Specifications					
		2.5	4.0	6.3	8.0	10	12.5
Rated voltage (V)	—	2.5	4.0	6.3	8.0	10	12.5
Surge voltage (V)	—	2.9	4.6	7.2	9.2	12	14
Category temperature range (°C)	—	-55 to +105					
Capacitance tolerance (%)	120Hz/20°C	M : ± 20					
Rated capacitance range (μ F)	120Hz/20°C	33 to 220					
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	85°C, 1,000h rated voltage applied	Δ C/C	Within $\pm 20\%$ 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	Δ C/C	Within+40%, -20% of the initial value				
		DF	≤ 1.5 times of the initial limit				
		LC	≤ 3 times of the initial limit				
Surge	85°C, 1,000 cycles, 1k Ω discharge resistance, surge voltage applied	Δ C/C	Within $\pm 5\%$ of the initial value				
		DF	Within the initial limit				
		LC	≤ 3 times of the initial limit				

Marking and dimensions

(unit : mm)

Size code	L ^{+0.3} _{-0.1}	W ^{+0.3} _{-0.1}	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

Rated capacitance^{※3}
Anode (+)
Rated voltage^{※1}
Lot. No.^{※2}

※1 The rated voltage is as follows.

R.V.	2.5	4.0	6.3	8.0	10	12.5
Mark	e	g	j	k	A	B

※2 Lot.No.shows roughly manufacturing date.

※3 The rated capacitance is as follows.

Capacitance(μ F)	33	47	100	150	220
Mark	N7	S7	A8	E8	J8

Recommended land pattern dimension of PWB

(unit : mm)

Size code	a	b	c
B1G	1.6	2.7	1.4
B15G	1.6	2.7	1.4

Size list

RV:Rated voltage

μ F \ RV	2.5	4.0	6.3	8.0	10.0	12.5
33						B1G
47				B1G	B1G	
100			B1G			
150			B15G			
220	B1G,B15G	B15G	B15G			

TPG series characteristics list

Size code	Part number	Rated voltage (V)	Rated temperature (°C)	Rated capacitance (μ F)	Category voltage (V)	Category temperature (°C)	DF (% max)	LC (μ A) max/5min.	ESR (m Ω max) 100kHz/20°C	Maximum allowable ripple current (mA rms) 100kHz ^{※1}	MSL Reflow temp. $\leq 260^\circ$ C Reflow temp. $\leq 250^\circ$ C	
B1G	12TPG33M	12.5	85	33	10	105	10	41.3	70	1000	3	3
	10TPG47M	10	85	47	8.0	105	10	47.0	70	1000	3	3
	8TPG47M	8.0	85	47	6.4	105	10	37.6	70	1000	3	3
	6TPG100M	6.3	85	100	5.0	105	10	63.0	70	1000	3	3
	6TPG100MG	6.3	85	100	5.0	105	10	63.0	55	1100	3	3
	6TPG100MZGD ^{※2}	6.3	85	100	5.0	105	10	126.0	35/300kHz	1200	3	3
	2R5TPG220M	2.5	85	220	2.0	105	10	55.0	70	1000	3	3
B15G	6TPG220MZG ^{※2}	6.3	85	220	5.0	105	10	277.2	35/300kHz	1200	3	3
	6TPG150M	6.3	85	150	5.0	105	10	94.5	70	1000	3	3
	6TPG150MZG	6.3	85	150	5.0	105	10	189.0	35/300kHz	1200	3	3
	4TPG220M	4.0	85	220	3.2	105	10	88.0	70	1000	3	3
	2R5TPG220MUG	2.5	85	220	2.0	105	10	110.0	30/300kHz	1400	3	3

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

※ Red letters : New models