### **Surface Mount Type**

POSCAP

Series: TPB

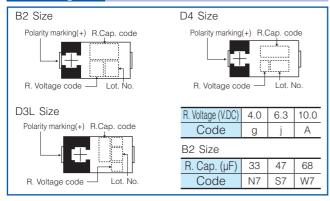


#### **Features**

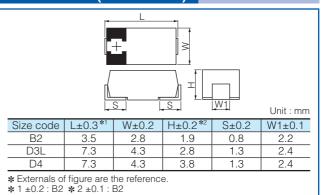
- Standard
- RoHS compliance, Halogen free

<b>Specifications</b>									
Size code	B2		D3L	D4					
Category temperature range	−55 °C to +105 °C								
Rated voltage range		6.3 V.DC to 10 V.DC							
Category voltage range		6.3 V.DC to 10 V.DC							
Rated capacitance range	33 μF to 68 μ	F	150 μF to 330 μF	220 μF to 470 μF					
Capacitance tolerance	±20 % (120 Hz / + 20 °C)								
Leakage current	Please see the attached characteristics list								
Dissipation factor (tan $\delta$ )	Please see the attached characteristics list								
Surge voltage (V.DC)	Rated voltage × 1.15								
	+105 °C 2000h, (B2 size : 1000h) rated voltage appled								
	* Rated temp. +85 °C 1000h rated voltage applied								
Endurance	Capacitance change   Within ±20 % of the initial value								
	tan $\delta$	≤ 1.5 times of the initial limit							
	DC leakage current   Within the initial limit								
	+60 °C, 90 % to 95 %, 500 h, No-applied voltage								
Damp heat	Capacitance change	Within +40 %, -20 % of the initial value							
(Steady State)	$ an \delta$	≦ 1.5 time							
	DC leakage current ≤ 3 times of the initial limit								

#### Marking



#### **Dimensions (not to scale)**



#### **Characteristics list**

	Rated voltage (V.DC)	Rated category temp. (°C) (V.DC)	Catagoni	Category temp. (°C)	Rated capacitance (µF)	Case size (mm)			Specifications			Standard		Floor life			
Series						L	W	Н	Size code	Ripple*1 current (mAr.m.s.)	ESR *2 (mΩ max.)	tan $\delta^{*3}$	LC* <sup>4</sup> (μΑ)	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤ 260°C	Reflow Temp ≤ 250°C
TPB	4.0	105	4.0	105	68	3.5	2.8	1.9	B2	1100	70	0.08	27.2	4TPB68M	2000		3
		105	4.0	105	330	7.3	4.3	2.8	D3L	2000	40	0.10	132.0	4TPB330ML	2500		2a
	<b>NEW</b> 105		6.3	105	33	3.5	2.8	1.9	B2	1100	70	0.08	20.7	6TPB33M	2000		3
	6.3	105	6.3	105	68	3.5	2.8	1.9	62	1100	70	0.08	42.8	6TPB68M	2000	7	
		105	6.3	105	220	7.3	4.3	2.8	D3L	2000	40	0.10	138.6	6TPB220ML	2500		2a
		85	5.0	105	330 7.3 7.3	7.3	4.3	2.8		2000	40	0.10	207.9	6TPB330MAL	2500	3	
		105	6.3	105		7.3	4.3	2.8		2000	40	0.10	207.9	6TPB330ML	2500	3	
		105	6.3	105		7.3	4.3	3.8	D4	3000	40	0.10	207.9	6TPB330M	2000		
		105	6.3	105		7.3	4.3	3.8		3000	35	0.15	296.1	6TPB470M	2000		
	10	105	10.0	105	33	3.5	2.8	1.9	B2	1100	70	0.08	33.0	10TPB33M	2000		3
		105	10.0	105	47	3.5	2.8	1.9	DZ	1100	70	0.08	47.0	10TPB47M	2000		
		105	10.0	105	150	7.3	4.3	2.8	D3L	2000	40	0.10	150.0	10TPB150ML	2500	3 -	- 2a
		105	10.0	105	220 7	7.3	4.3	2.8		2000	40	0.10	220.0	10TPB220ML	2500		
		105	10.0	105	220	7.3	4.3	3.8	D4	3000	40	0.10	220.0	10TPB220M	2000		
		105	10.0	105	330	30 7.3	4.3	3.8		3000	35	0.10	330.0	10TPB330M	2000		

- \*1 Ripple current (100 kHz/ +45 °C ), \*2 ESR (100 kHz/+20 °C) \*3  $\tan \delta$  (120 Hz/+20 °C) \*4 After 5 minutes
- ◆ Please refer to each page in this catarog for "Reflow conditions" and "Taping specifications"



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