Panasonic Conductive Polymer Tantalum Solid Capacitors

Surface Mount Type

Series : TPH

POSCAP

This series is not a recommended product. Not recommended for new design.



Features

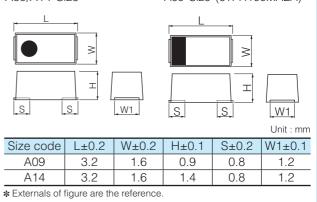
- Small size, Low profile (L3.2 × W 1.6 × H 0.9 mm)
- Face down terminal type
- RoHS compliance, Halogen free

Specifications

Size code		A09	A14						
Category temperature range	−55 °C to +105 °C / −55 °C to +85 °C (Rated temp. +85 °C)								
Rated voltage range	2.5 V.D	C to 10 V.DC	2.5 V.DC to 6.3 V.DC						
Category voltage range		C to 10 V.DC	2.5 V.DC to 6.3 V.DC						
Rated capacitance range	33 µF	⁻ to 100 μF	100 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	+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								
	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 (ETPH220MABC)							
	Capacitarice change	Within +40 %, -20 % of the initial value (Except for above model)							
	tan δ	≤ 1.5 times of the initial limit							
	DC leakage current	rrent \leq 3 times of the initial limit							

Marking **Dimensions (not to scale)** A09/A14 Size A09/A14 Size A09 Size (6TPH100MAEA) Polarity marking(+) Polarity marking(+) R.Cap. code - R.Cap. code Yea Yea \geq Week -Week R. Voltage code R. Voltage code Т S S R. Voltage (V.DC) 2.5 4.0 6.3 10.0 Size code L±0.2 Code А е g A09 3.2 R. Cap. (µF) 33 47 68 100 150 220 3.2 A14 Code N7 S7 W7 A8 E8 J8

A09 Size (6TPH100MAEA)



Characteristics list

Series		Rated temp. (°C)	Category voltage (V.DC)		Rated capacitance (µF)	Case size (mm)			Specifications			Standard		Floor life			
						L	W	Н	Size code	Ripple*1 current (mAr.m.s.)	ESR *2 (mΩ max.)	tan δ^{*^3}	LC *4 (µA)	Part number	Min. Packaging Q'ty (pcs)	Reflow Temp ≤ 260°C	Reflow Temp ≤ 250°C
ТРН	2.5	105	2.5	105	100	3.2	1.6	0.9	A09	510	150	0.10	25.0	ETPH100MHA	3000		3
		85	2.5	85	220	3.2	1.6	1.4	A14	740	70	0.10	110.0	ETPH220MABC	2500	- 3	
	4	105	4.0	105	68	3.2	1.6	0.9	A09	510	150	0.10	27.2	4TPH68MHA	3000		
		85	4.0	85	150	3.2	1.6	1.4	A14	740	70	0.10	120.0	4TPH150MABC	2500		
	6.3	105	6.3	105	47	3.2	1.6	0.9	A09	510	150	0.10	29.6	6TPH47MHA	3000	3	
		85	6.3	85	100	3.2	1.6	0.9		670	100	0.10	63.0	6TPH100MAEA	3000		
		85	6.3	85	100	3.2	1.6	1.4	A14	740	70	0.10	126.0	6TPH100MABC	2500		
	10	85	10.0	85	33	3.2	1.6	0.9	A09	510	150	0.10	33.0	ATPH33MAHA	3000		

*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".

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