

Surface Mount Type

POSCAP



Series : TPH

⚠ 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.DC to 10 V.DC	2.5 V.DC to 6.3 V.DC
Category voltage range	2.5 V.DC 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	≤ 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 (ETPH220MABC) 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

A09/A14 Size

A09 Size (6TPH100MAEA)

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

R. Cap. (μF)	33	47	68	100	150	220
Code	N7	S7	W7	A8	E8	J8

Dimensions (not to scale)

A09/A14 Size

A09 Size (6TPH100MAEA)

Unit : mm

Size code	L±0.2	W±0.2	H±0.1	S±0.2	W1±0.1
A09	3.2	1.6	0.9	0.8	1.2
A14	3.2	1.6	1.4	0.8	1.2

* 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)			Size code	Specifications				Standard		Floor life	
						L	W	H		Ripple current (mA r.m.s.) ^{*1}	ESR (mΩ max.) ^{*2}	tan δ ^{*3}	LC (μA) ^{*4}	Part number	Min. Packaging Qty (pcs)	Reflow Temp ≤260°C	Reflow Temp ≤250°C
TPH	2.5	105	2.5	105	100	3.2	1.6	0.9	A09	510	150	0.10	25.0	ETPH100MHA	3000	3	3
		85	2.5	85	220	3.2	1.6	1.4	A14	740	70	0.10	110.0	ETPH220MABC	2500		
	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		
		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		
	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 catalog for "Reflow conditions" and "Taping specifications".

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