# Surface Mount Type

Series: TQ Type: V

TQ High temperature Lead-Free reflow(suffix:A\*)

#### Features

- 1 size smaller and same performance compare with V-TK series
- Low ESR
  - (85% low ESR in low temperature after endurance compare with V-TP series)
- Endurance: 2000 h at 125 °C
- AEC-Q200 qualified\*
- RoHS directive compliant

#### Recommended Applications

• Automotive

#### Specifications

Category Temp. Range	−40 °C to +125 °C					
Rated W.V.Range	35 V.DC					
Nominal Cap.Range	47 μF to 100 μF					
Capacitance Tolerance	±20 % (120 Hz/+20 °C)					
DC Leakage Current	I ≦ 0.01 CV (μA) After 2 minutes					
tan $\delta$	Please see the attached standard products list					
Endurance	After the life test with DC rated working voltage at +125 °C±2 °C for 2000 hours, the capacitors shall meet the limits specified below.					
	Capacitance change	±30 % of initial measured value				
	tan $\delta$	≦300 % of initial specified value				
	DC leakage current	≤ initial specified value				
	ESR after Endurance (Ω/100kHz)		Size Code			
			D8			
		Initial(+20 °C)	0.30			
	(, · · · · · · · · · · · · · · · · · ·	After 2000 h(-40 °C)	6			
Shelf Life	After storage for 1000 hours at +125 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)					
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.					
	Capacitance change	±10 % of initial measured value				
	tan $\delta$	≤ initial specified value				
	DC leakage current	≤ initial specified value				

#### Frequency correction factor for ripple current

	Frequency (Hz)				
	120	1 k	10 k	100 k to	
Correction factor	0.65	0.85	0.95	1.00	

## Marking



\* This product qualify for AEC-Q200, but it has some deviations.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately. 01 Mar. 2014



## Standard Products

Endurance · 125 °C 2000 h

W.V.	Cap. (±20 %)	Case size		Specification					Min. Packaging Q'ty	
		Dia. Length	, "Size	Ripple	E.S.R.	tan $\delta$	Part No. (RoHS:compliant)	Reflow	Taping	
			Code	Current (100 kHz) (+125 °C)	(100 kHz) (+20 °C)	(120 Hz) (+20 °C)				
(V)	(µF)	(mm)	(mm)		(mA r.m.s.)	(Ω)				(pcs)
35	47	6.3	7.7	D8	197	0.30	0.16	EEETQV470XAP	(5)	900
	100	6.3	7.7	D8	197	0.30	0.16	EEETQV101XAP	(5)	900

If Part number exceeds 12 digits, voltage code is abbreviated as follows; 1V→V · Please refer to the page of "Reflow Profile" and "The Taping Dimensions".

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Panasonic: EEE-TQV470XAP EEE-TQV101XAP