

Toroidal, PCB Mounted Voltage Transformer

The TV3901 Series of toroidal, PCB mounted voltage transformer is designed for application where an AC current signal must be transformed into lower AC voltage signal appropriate for micro-processor based circuits.

The TV3901 series are designed specifically for integration into products which require exceptionally accurate signal transformation with low phase shift while exposed to harsh environmental operating conditions.



Features:

- Asymmetrical PIH mounting pattern.

Specifications:

- Primary: 150, 220 or 300 VAC
- Secondary Options: 100mV to 7.07 V @ rated voltage
- Frequency: 50 to 400 Hz
- Dielectric Resistance: 1,000 MOhms @ 500 VDC
- Isolation Voltage: 2500 V_{RMS} for 1 minute @0.5 mA.
- Surge withstand potential: 5000V (1.2/50 μ second standard shock wave)
- Operating Temperature: -25°C to +55° C
Optional: -40°C to +85° C

- Construction:
 - Case Material: PBT Resin, UL 94 V-0
 - Interior Insulation: Epoxy resin
- RoHS compliant



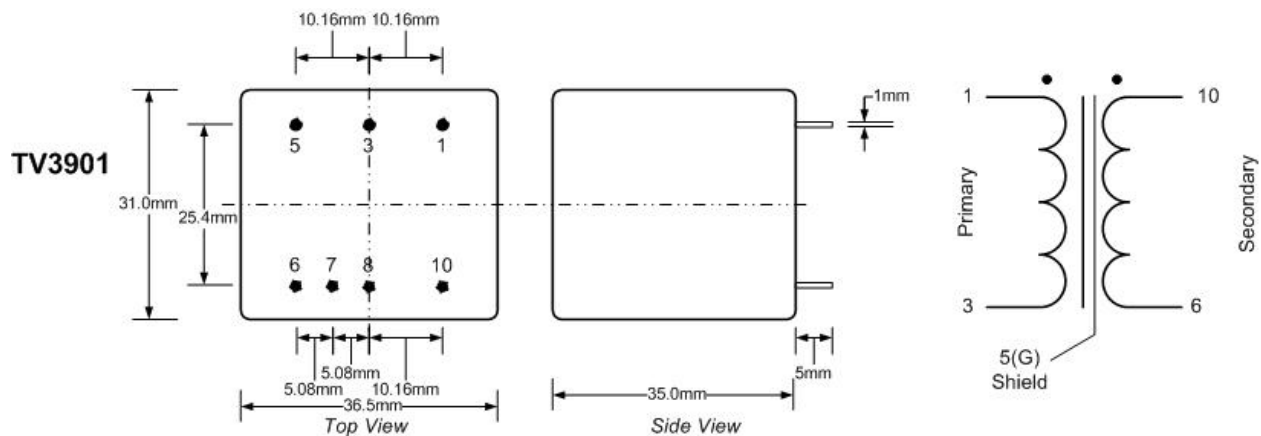
Performance:

- Accuracy Class: 0.1L (IEC 60044-2 Part 2 Voltage Transformers Class 0.1)
- Linearity: 5% to 120% of Rated Voltage
- Voltage error @ Rated Voltage: $\leq \pm 0.1\%$
- Phase shift @ Rated Voltage: $\leq 5'$
- Excitation Current: ≤ 0.5 mA
- Secondary burden resistance: 100 kOhm

Typical Performance TV39-380V/ 7.07V ($R_{Load} \geq 100\text{ kOhm}$)

Primary Voltage	19V	76V	190V	304V	380V	418V
Ratio Error (%)	-0.058	-0.042	-0.029	-0.028	-0.032	-0.040
Phase Shift Error (')	7.8	5.5	3.2	2.4	3.3	7.0

Outline Drawing:



NOTE: The TV3901 Series of PCB mounted voltage transformers are bulk packed. Purchase order quantities should be in increments of the bulk packaging quantities:

- TV3901 –
 - 60 pc increments, 180 pcs per bulk pack
 - Bulk pack box = 18 kg/ 39.6 lbs, 0.018CBM (37cm/ 14.6" x 26cm/ 10.2" x 19cm/ 7.5")

Custom toroidal voltage transformer designs are available to meet the specific application requirements. For a no obligation technical evaluation, please provide the specific performance requirements to engineering@tichenassociates.com or the address below.