

Toroidal, PCB Mounted Voltage Transformer

The **TV3501** Series of toroidal, PCB mounted voltage transformer are designed for applications where the primary AC voltage signal must be transformed accurately into a lower secondary AC voltage signal appropriate for micro-processor based circuit designs.

These printed circuit board (PCB) mounted voltage transformers are designed to provide exceptional primary signal transformation accuracy with low phase shift while operating in harsh operating environments. The potential transformers (PT)/ voltage transformers (VT) feature high dielectric insulation and asymmetrical mounting packages.



Features:

- Asymmetrical mounting pattern.
- Toroidal Core using Silicon steel or Nickel Alloy material.
- Printed circuit board mounted (PIH)

Specifications:

- Primary: 57.7V, 100V, 120V or 150 VAC
- Secondary Options: 100mV to 7.07 V @ rated voltage
- Frequency: 50 to 400 Hz
- Isolation Voltage: 2500 V_{RMS} for 1 minute @0.5 mA.
- Dielectric Resistance: 1,000 MOhms @ 500 VDC
- 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:
 - Exterior Material: PBT Resin, UL 94 V0 flame retardant rating
 - Interior Insulation: Epoxy resin encapsulated
- **RoHS Compliant**



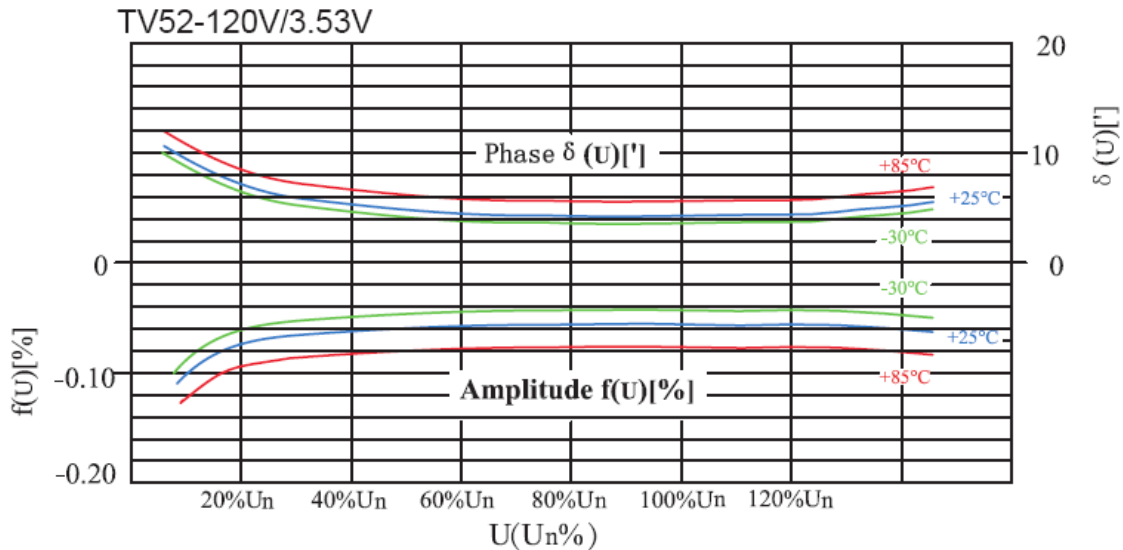
Performance:

- 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

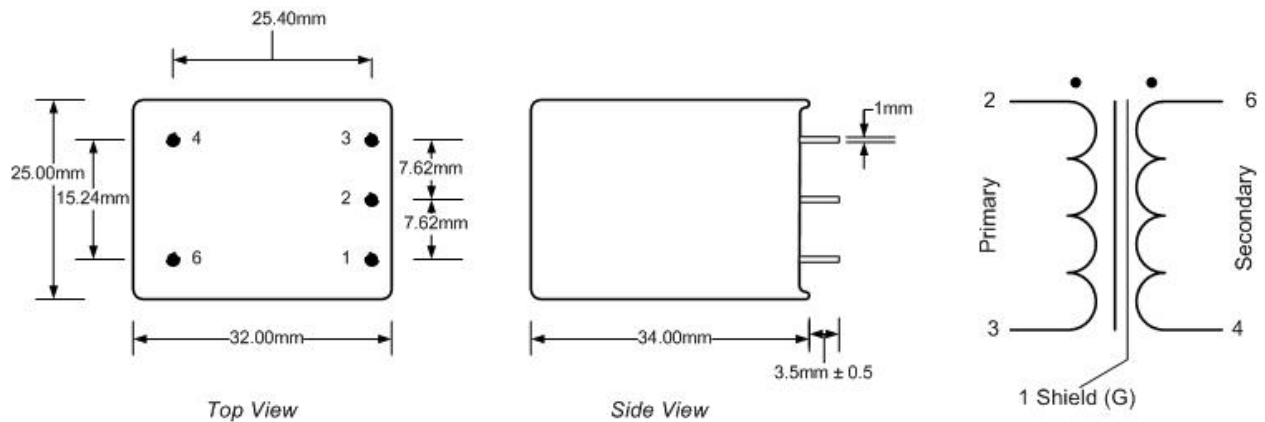
Options:

The voltage transformer can be configured for panel mounting with leads. Standard lead length is 0.6m (2 Ft.). Lead length and lead termination can be designed to meet the specific application requirements.

Typical Performance TV52-120V/ 3.53V ($R_{Load} \geq 100\text{ kOhm}$)



Outline Drawing:



NOTE: The TV3501 Series of PCB mounted voltage transformers are bulk packed. Purchase order quantities should be in increments of the bulk packaging quantities:

- TV3901 – **72 pc** increments, **360 pcs** per bulk pack
Bulk pack box = ___kg(___lbs)/ 0.024CBM

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.