

MINIATURE VOLTAGE TRANSFORMERS

Laminated Core Voltage Transformers

The YUANXING TV series of miniature voltage transformers are designed for applications where AC voltage signals must be transformed accurately into a lower AC voltage signal appropriate for micro-processor based circuits.

A TV model can be designed and manufactured to meet the specific design challenges of the client's specific application. The following models are only a small sampling of the many different products which have been and are currently being manufactured.



FEATURES

- Low cost
- More than 10 standard sizes
- Non-symmetrical PCB mounting pattern or Chassis mounting pattern
- Laminated Silicon steel and Nickel Alloy available

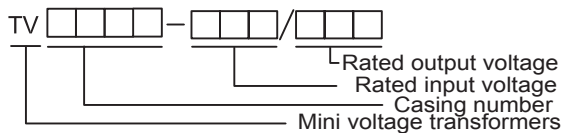
APPLICATIONS

- For applications that require exceptional accuracy with minimal phase angle error
- Applications would include voltage, power, and energy monitoring devices

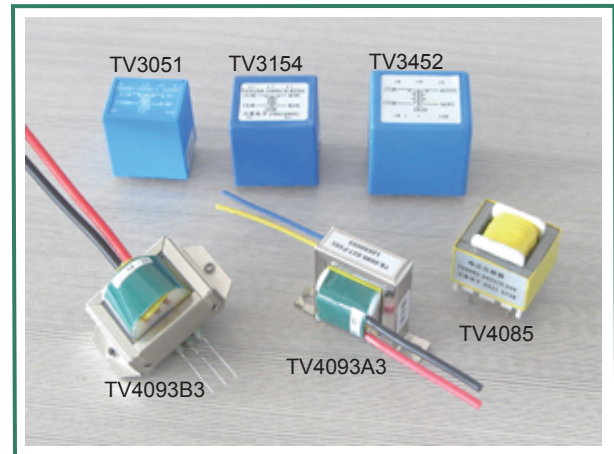
SPECIFICATIONS

- Isolation Voltage: 2500 Vrms for 1 minute
- Surge Withstand: 5000V (1.2/50μs standard shock wave) optional
- Rated Load Resistance: 100K Ohms
- Accuracy Class: as defined in IEC 60044-2 Part 2 Voltage Transformers Class 0.2, 0.5
- Operating Temperature: -25 to +55°C, -40 to +85°C
- Frequency: 50 to 400 Hz
- RoHS compliant

PART NUMBERS

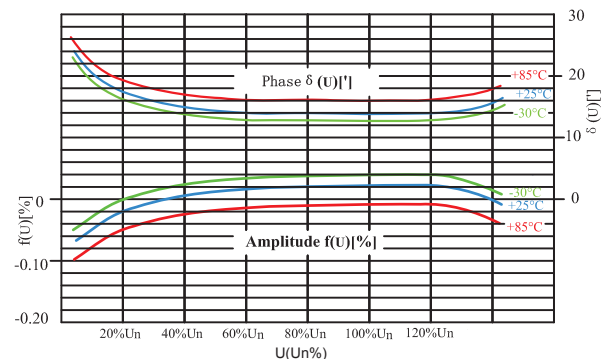


PERFORMANCES



Typical Temperature Dependence of Phase and Amplitude Errors

TV3154-220V/3.53V



Encapsulated, Laminated core PCB mounting Voltage transformers					
Model	Rated Input\Output	Frequency(Hz)	Excitation current(mA)	Linearity (L)	Outline L-W-H(mm)
TV3051	Input: 100V, 220V, 240V Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.5	28.5-22.0-30.2
TV3154	Input: 100V, 220, 240V, 400V, Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	31.5-28.5-30.0
TV39A51	Input: 100V, 220V, 240V, 400V Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.5	35.0 -32.0-33.0
TV3253	Input: 100V, 220V, 240V, 400V Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	33.0-28.5-37.0
TV3253A	Input: 100V, 220, 240V, 400V, Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	33.8-29.5-37.2
TV3352	Input: 100V, 220, 240V, 400V, Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	38.0-33.0-37.0
TV3452	Input: 220, 240V, 380V, 600V Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	41.5-35.5-39.0
Laminated core PCB mounting Voltage transformers					
Model	Rated Input\Output	Frequency(Hz)	Excitation current(mA)	Linearity (L)	Outline L-W-H(mm)
TV4085	Input: 100V, 220V, 240V, 400V Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	28.3-25.3-27.0
TV4105	Input: 100V, 220, 240V, 380V, Output: 0.1V, 0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	30.3-25.3-31.0

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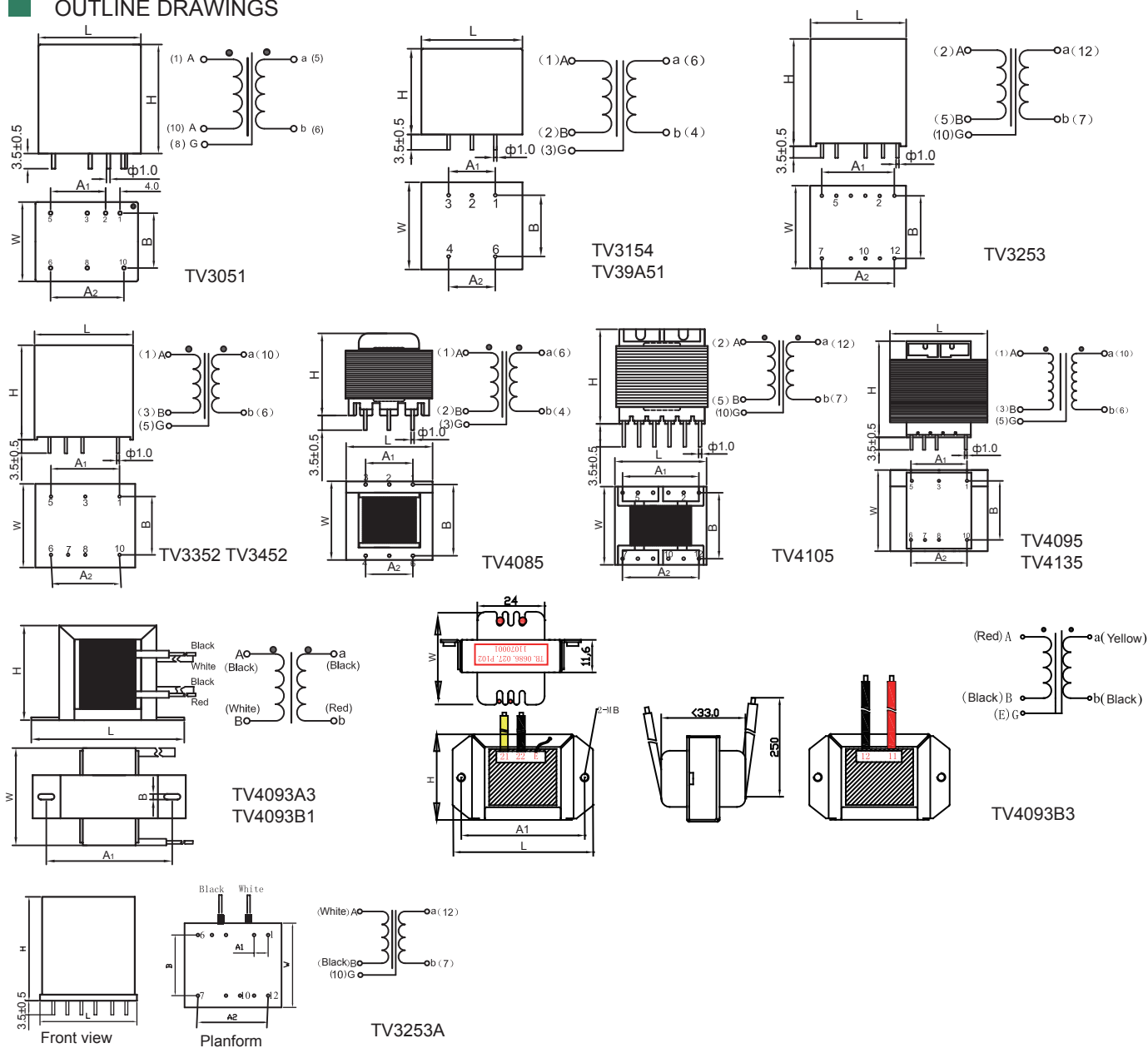
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PERFORMANCES

Model	Rated Input/Output	Frequency(Hz)	Excitation current(mA)	Linearity (L)	Outline L-W-H(mm)
TV4095	Input: 100V, 220, 240V, 380V, Output: 0.1V,0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	35.3-30.3-34.0
TV4135	Input: 220, 240V, 380V, 600V Output: 0.1V,0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	38.5-32.5-37.0
Laminated core, Chassis Mounting Voltage Transformers					
Model	Rated Input/Output	Frequency (Hz)	Excitation current(mA)	Linearity (L)	Outline L-W-H(mm)
TV4093A3	Input: 57.7V, 100V, 120V, 150V Output: 0.1V,0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	50.0-33.0-37.0
TV4093B3	Input: 57.7V, 100V, 120V, 150V Output: 0.1V,0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	50.0-33.0-30.0
TV4093B1	Input: 100V, 220V, 240V, 380V, 400V Output: 0.1V,0.333V...3.53V...7.07V	50 to 400	≤0.5	0.2, 0.5	57.0-35.0-33.0

OUTLINE DRAWINGS



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OUTLINE DIMENTIONS

Unit:mm (inch)

Model	L	W	H	A1	A2	B
TV3051	28.5 (1.122)	22.0(0.866)	30.2(1.189)	5.08X3(0.2X3)	10.16x2 (0.4X2)	15.24 (0.600)
TV3154	31.5(1.240)	28.5(1.122)	30.0(1.181)	7.62X2(0.3X2)	15.24(0.600)	20.0(0.787)
TV39A51	35.0(1.378)	32.0(1.260)	33.0(1.300)	7.5X2(0.295X2)	7.5X2(0.295X2)	22.5(0.886)
TV3253	33.0(1.299)	28.5(1.122)	37.0(1.457)	5.0X5(0.197X5)	5.0X5(0.197X5)	21.6(0.850)
TV3253A	33.8(1.331)	29.5(1.161)	37.2(1.465)	5.0(0.197)	5.0X5(0.197X5)	21.6(0.850)
TV3352	38.0(1.496)	33.0(1.299)	37.0(1.457)	5.08X4(0.2X4)	5.08X4(0.2X4)	25.4(1.000)
TV3452	41.5(1.634)	35.5(1.398)	39.0(1.535)	5.08X4(0.2X4)	5.08X4(0.2X4)	25.4(1.000)
TV4085	28.3(1.114)	25.3(0.996)	27.0(1.063)	7.62X2(0.3X2)	7.62X2(0.3X2)	20(0.787)
TV4105	30.3(1.193)	25.3(0.996)	31.0(1.221)	5.08X5(0.2X5)	5.08X5(0.2X5)	21.6(0.850)
TV4095	35.3(1.390)	30.3(1.193)	34.0(1.339)	5.08X4(0.2X4)	5.08X4(0.2X4)	25.4(1.000)
TV4135	38.5(1.516)	32.5(1.280)	37.0(1.457)	5.08X4(0.2X4)	5.08X4(0.2X4)	25.4(1.000)
TV4093B1	57.0(2.244)	35.0(1.378)	33.0(1.299)	46.0(1.811)	—	5.0(0.197)
TV4093A3	50.0(1.969)	33.0(1.299)	37.0(1.457)	44.0(1.732)	—	4.0(0.157)
TV4093B3	50.0(1.969)	23.0(1.299)	30.0(1.181)	44.0(1.732)	—	M3.0(0.118)

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