

ADSL Transformer

P3902

Features

- * Lead-free (Pb-free)
- * Low Distortion
- * IEC 950 and UL 60950 Certified
- * UL Recognized Component
- * Supplementary Insulation
- * Surface Mount
- * Industry Standard Footprint

Applications

- * Texas Instruments CO and CPE
- * ADSL over POTS

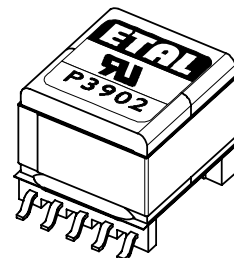
DESCRIPTION

P3902 is designed for Central Office and Customer Premises ADSL over POTS applications using TI TNETD3000, and Central Office ADSL over POTS applications using TI TNETD4000.

P3902 is certified to standards IEC 950 and UL 60950 for supplementary insulation, 250V working voltage. P3902 is a UL Recognized Component and is supported by an IEC CB Test Certificate.

The part is completely lead-free and suitable for lead-free and conventional processing.

The safety system yields very low transformer parasitics, ensuring that P3902 exhibits excellent frequency response and balance; in combination with its good harmonic distortion performance, P3902 is ideally suited to low cost yet demanding ADSL applications.



SPECIFICATIONS

Electrical

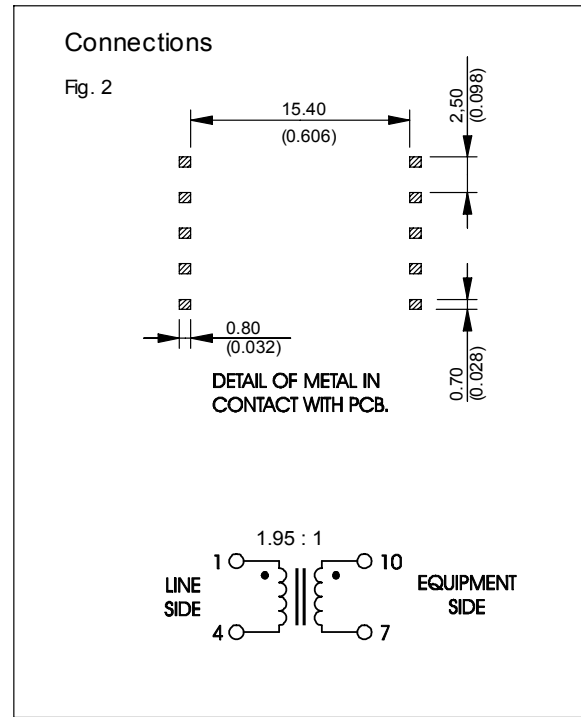
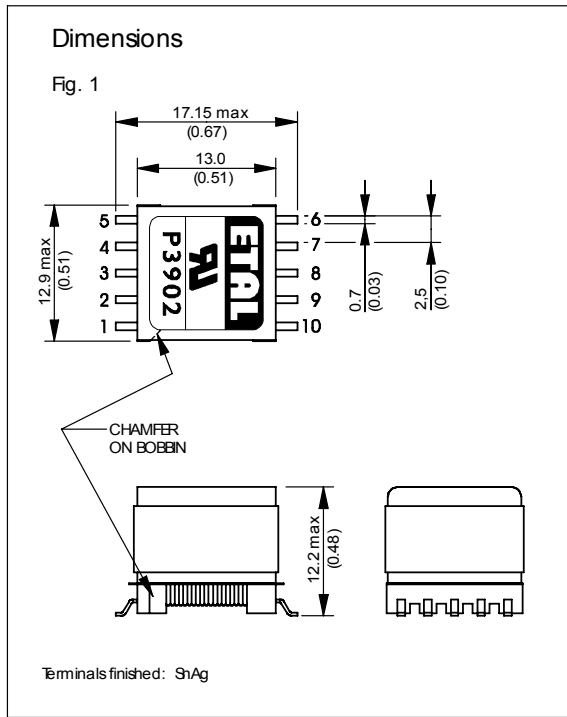
Typical values at T = 25°C, unless otherwise stated.

Parameter	Conditions	Min	Typ	Max	Units
Inductance	10kHz 100mV 1-4	1.42	1.50	1.58	mH
Leakage inductance	100kHz, 100mV Pins 1-4 (link 7-10)	-	-	15	μH
Interwinding capacitance	100kHz 100mV 1-10	-	20	30	pF
DC resistance	1-4	-	-	1.6	Ω
	7-10	-	-	0.7	Ω
Turns ratio	1-4 : 10-7	1.93	1.95	1.97	-
Voltage isolation ⁽¹⁾	50Hz	2.12	-	-	kVrms
	DC (1,4 : 7,10)	3.0	-	-	kV
Operating range:	Ambient temperature				
Functional		-40	-	+85	°C
Storage		-40	-	+85	°C

Notes

1. Components are 100% tested at 3.25kV DC.

CONSTRUCTION



Dimensions shown are in millimetres (inches).

SAFETY

Constructed in accordance with IEC 60950-1, EN 60950-1 and UL 60950-1, supplementary insulation, 250V maximum working voltage, flammability class V-0.

Installation requirements should be observed whereby a minimum of 1.0mm creepage and 1.5mm clearance is maintained between the ferrite core and accessible conductive parts in the host equipment.

ABSOLUTE MAXIMUM RATINGS

(Ratings of components independent of circuit).

Short term isolation voltage (1s)	2.12kVrms, 3.0kVDC
Storage temperature	-40°C to +85°C
Reflow temperature (10s)	260°C

CERTIFICATION

Certified by BSI to IEC 950:1991/A4:1996 (IEC CB Test Certificate No. GB518W) sub-clauses 1.5, 1.5.1, 1.5.3, 2.2, 2.2.2, 2.2.3, 2.2.4, 2.9.2, 2.9.3, 2.9.4, 4.4, 4.4.3.2 (class V-0) and 5.3 for a maximum working voltage of 250Vrms, nominal mains supply voltage not exceeding 300Vrms and a maximum operating temperature of +85°C in Pollution Degree 2 environments, supplementary insulation, clearance greater than 2.0mm, creepage greater than 2.5mm, distance through solid insulation greater than 0.4mm.

Recognized under the Component Recognition Program of Underwriters Laboratories Inc. to US and Canadian requirements CAN/CSA C22.2 No. 60950-1-03/UL60950-1, First Edition, based on IEC 60950-1, First Edition, maximum working voltage 250Vrms, Pollution Degree 2, supplementary insulation.

UL File number E203175.

Additionally, Profec Technologies certifies all transformers as providing voltage isolation of 2.12kVrms, 3kV DC minimum. All shipments are supported by a Certificate of Conformity to current applicable safety standards.

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ISO 9001
FM 25326

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