ADSL Transformer P5341

Features

* Lead-free (Pb-free)
* RoHS compliant
* Low Distortion
* IEC 60950 and UL 60950 certified
* Supplementary Insulation
* Industry Standard Footprint

Applications

* TI chip set TNETD7300

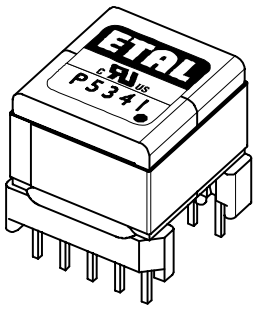
DESCRIPTION

P5341 is a low distortion transformer for TI chip set TNETD7300.

P5341 is certified to IEC 60950 and UL 60950 for supplementary insulation for a primary circuit, 250V working voltage. P5341 is a UL Recognized Component and is supported by an IEC CB Test Certificate. The part is completely lead-free, compliant with RoHS Directive 2002/95/EC, and suitable for lead-free and conventional processing.

The safety system yields very low transformer parasitics, ensuring that P5341 exhibits excellent frequency response and balance; in combination with its good harmonic distortion performance, P5341 is ideally suited to low cost yet demanding ADSL applications.

Pb RoHS COMPLIANT



SPECIFICATIONS

Electrical

Typical values at T = 25ºC, unless otherwise stated.

Parameter	Conditions	Min	Typ	Max	Units
Inductance	10kHz 100mV 1-4 (link 2-3)	1.42	1.5	1.58	mH
Leakage inductance	100kHz, 100mV, 1-4 (link 2-3; link 7, 8, 9, 10)	-	-	14	µH
Interwinding capacitance	100kHz 100mV 1-10 (link 2, 3; link 8, 9)	-	-	33	pF
Third Harmonic (1) Distortion	30kHz, 5.3Vrms (link 2-3; link 8-9)	-	-	-84	dB
DC resistance	1-4 (link 2-3) 10-7 (link 8-9)	- -	- -	2.55 0.65	Ω Ω
Turns ratio	1-4: 10-7 (link 3, 2; link 8,9)	1.96	2.00	2.04	-
Voltage isolation (2)	50Hz DC (1, 2, 3, 4 : 7, 8, 9, 10)	2.12 3.0	- -	- -	kVrms kV
Operating range: Functional Storage	Ambient temperature	 -40 -40	 - -	 +85 +85	 ºC ºC

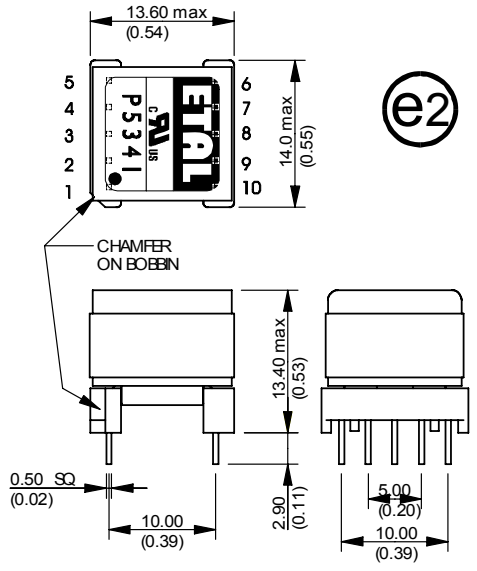
Notes

1. 33Ω source, 130Ω load.
2. Components are 100% tested at 3.25kV DC.

CONSTRUCTION

Dimensions

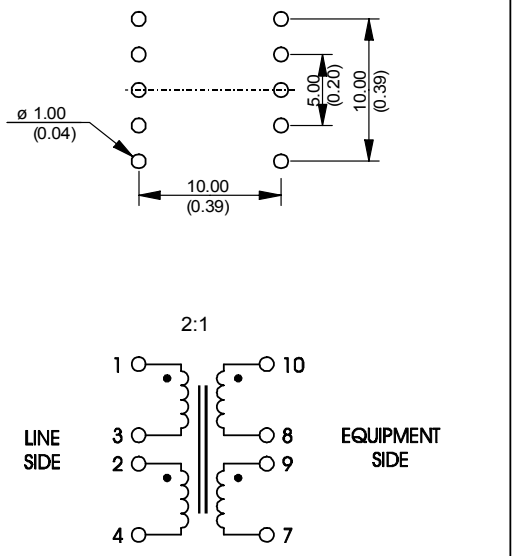
Fig. 1



Terminals finished SnAg. JESD97 category = e2.

Connections

Fig. 2



Dimensions shown are in millimetres (inches).

SAFETY

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

ABSOLUTE MAXIMUM RATINGS

(Ratings of components independent of circuit).

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

CERTIFICATION

Certified under the IEC CB scheme to IEC 60950:1999 (IEC CB Test Certificate No. GB637W) sub-sections 1.5, 2.9, 2.10.3.1, 2.10.3.2, 2.10.4, 2.10.5, 2.10.5.2, 2.10.5.4, 4.5, 4.7.3, 4.7.3.1, 4.7.3.4, (class V-0) and 5.2, for a maximum working voltage of 250Vrms, nominal mains supply voltage not exceeding 300Vrms and a maximum operating temperature of +85ºC in Pollution Degree 2 environments, supplementary insulation for a primary circuit.

Recognized under the Component Recognition Program of Underwriters Laboratories Inc. to US and Canadian requirements CAN/CSA C22.2 No. 60950-1-3/UL60950-1, First Edition, maximum working voltage 250Vrms, Pollution Degree 2, supplementary insulation for a primary circuit.

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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E203175

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FM 25326

ETAL Group Oy, Kuormatie 14, FIN-03101, Nummela
Telephone: +358 (0)20 7500 330 Fax: +358 (0)20 7500 333
Website: www.etalgroup.com Email: etalgroup@egruppen.com