

LOW PROFILE LINE MATCHING TRANSFORMER

9025

Features

- * Low Profile (11mm)
- * Lead-free (Pb-free)
- * RoHS compliant
- * Vacuum encapsulated
- * IEC 60950 and UL 60950 certified
- * UL Recognized Component

Applications

- * Telecommunications
- * Modems to V.34
- * Line matching
- * Portable computers
- * Fax/modems
- * Instrumentation
- * Voice

DESCRIPTION

9025 is intended for data communications to V.34 (33.6kbps). With careful design, V.90/V.92 performance (56kbps) may be achievable.

9025 is certified to IEC 60950 and UL 60950. 9025 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.



SPECIFICATIONS

Electrical

At T = 25 °C and 600Ω source and load unless otherwise stated.

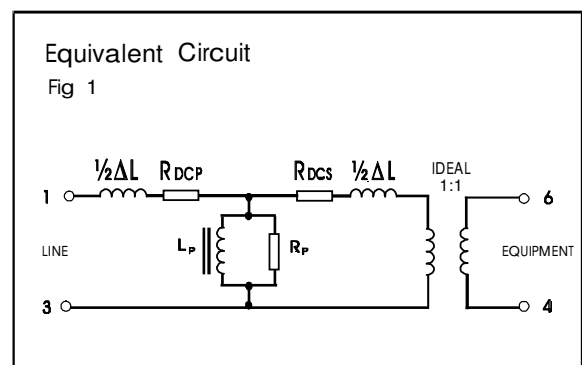
Parameter	Conditions	Min	Typ	Max	Units
Insertion Loss	f = 200Hz - 4kHz	-	-	3.1	dB
Frequency response	10Hz - 4kHz	-	-	±0.2	dB
Return Loss	300Hz - 4kHz, circuit figure 2.	18	-	-	dB
Distortion ⁽¹⁾	-3dBm in line, 3 rd Harmonic f = 200Hz	-	-76	-71	dBm
Voltage isolation ⁽²⁾	50Hz DC	3.88 5.5	- -	- -	kVrms kV
Operating range:	Ambient temperature				
Functional		-25	-	+80	°C
Storage		-40	-	+125	°C
Humidity		-	-	95	%R.H.

Lumped equivalent circuit parameters as Fig. 1

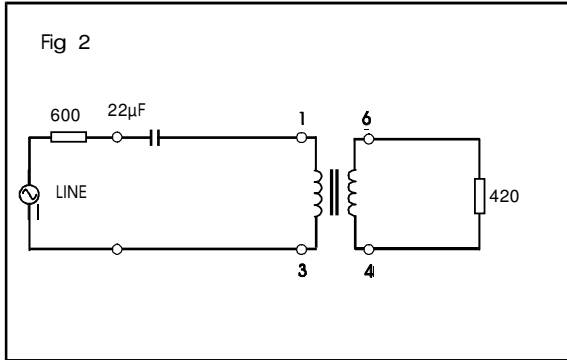
DC resistance ⁽³⁾	Primary resistance R _{DCP}	122	144	166	Ω
	Secondary resistance R _{DCS}	157	185	213	Ω
Leakage inductance ΔL		-	1.8	-	mH
Shunt inductance L _p	250mV 200Hz	9	14	20	H
Shunt loss R _p	250mV 200Hz	7.5	32	50	kΩ

Notes

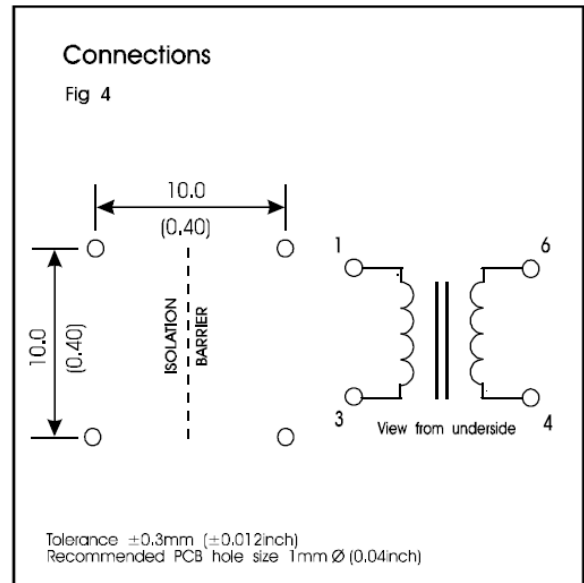
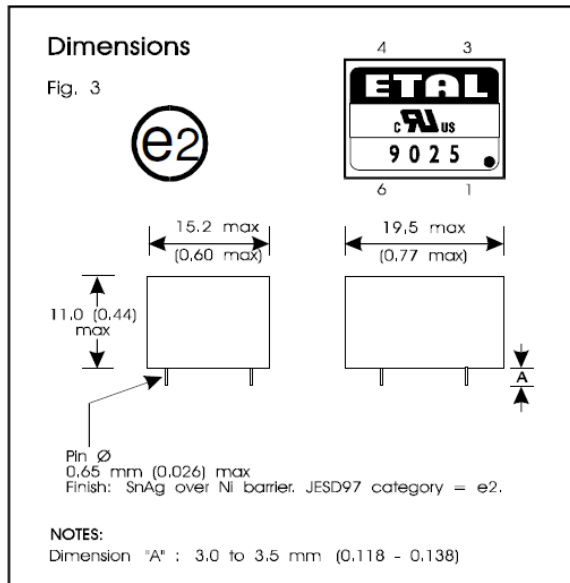
1. Third harmonic typically exceeds other harmonics by 20dB.
2. Components are 100% tested at 6.5kV DC.
3. Caution: do not pass DC through windings. Telephone line current, etc. must be diverted using choke or semiconductor line hold circuit.



REFERENCE CIRCUIT



CONSTRUCTION



Dimensions shown are in millimetres (inches).
Geometric centres of outline and pin grid coincide within a tolerance circle of 0.6mm
Windings may be used interchangeably as primary or secondary.

SAFETY

Constructed in accordance with IEC 60950-1, Second Edition, reinforced insulation, 250Vrms maximum working voltage, flammability class V-0.

CERTIFICATION

Certified under the IEC CB Scheme (Certificate DK-15467) to IEC 60950-1:2005 sub-clauses 1.5, 1.7, 2.9, 2.10, 4.7 and 5.2 (Denmark, Finland, Germany, Norway, Ireland, Korea, Spain, Sweden, Switzerland, USA, Canada and UK national deviations) for a maximum working voltage of 250Vrms, nominal mains supply voltage not exceeding 250Vrms and a maximum operating temperature of 80 °C in Pollution Degree 2 environments.

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

UL File number E203175.

Additionally, ETAL certifies all transformers as providing voltage isolation of 3.88kVrms, 5.5kV DC minimum. All shipments are supported by a Certificate of Conformity to current applicable safety standards.

ABSOLUTE MAXIMUM RATINGS

(Ratings of components independent of circuit).

Short term isolation voltage (2s)	4.6kVrms, 6.5kV DC
DC current	100µA
Storage temperature	-40 °C to +125 °C
Lead temperature, 10s	260 °C

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