

# Line matching transformer. 300 $\Omega$ - 600 $\Omega$ Centre Tapped

# P1524

## Features

- Low Insertion Loss
- 12.6mm Seated height
- Vacuum encapsulated
- Compliant with IEC 60950-1
- Tested to 6.5kV DC isolation

## Application

- Telecommunications
- V.22 bis modems
- Line matching
- Instrumentation
- Fax/modems
- Portable computers

## Description

P1524 is the transformer of choice in medium-speed applications where high performance coupled with high isolation is required at a most competitive price. At only 12.6mm high, it is significantly lower than most other similar transformers and meets the highest international safety standards, being vacuum encapsulated and 100% tested to withstand 6.5kV DC (4.60kV rms). P1524 is ideal for voice communications applications and data communications to V.22 bis (2400 bps) data rates. P1524 is specially designed to be easily matched to both 600 $\Omega$

and complex impedance telephone lines, using a minimum of external components. P1524 is compliant with IEC 60950-1. Equipment incorporating P1524 is capable of approval worldwide. P1524 is supported by recommended matching circuit components to meet the requirements of most National Telephone System Operators. P1524 has a centre tap to one winding for use as a return path in DC signalling between similar transformers.

## Specifications

Parameter	Conditions	Min	Typical	Max	Units	
Insertion loss	f=2kHz R <sub>L</sub> =56 $\Omega$			1.0	dB	
Frequency Response	LF - 3dB cutoff			50	Hz	
	HF - 3dB cutoff 200Hz - 4kHz	10		+0.2	kHz dB	
Return loss	200Hz - 4kHz	18			dB	
Distortion	0dBm in line, 3rd harmonic f=450Hz		-72	-60	dBm	
Balance	DC - 5kHz Method TG25	80			dB	
DC Resistance	Sum of windings	30		40	$\Omega$	
Saturation	Excitation 50Hz, 250V rms Output Voltage across line			10	V rms	
				65	V peak	
Voltage Isolation	50Hz	3-88			kV rms	
	DC	5-5			kV	
Operating range	Ambient temperature					
		Functional	-10		+70	$^{\circ}$ C
		Storage	-40		+125	$^{\circ}$ C
Humidity				95	%R.H.	

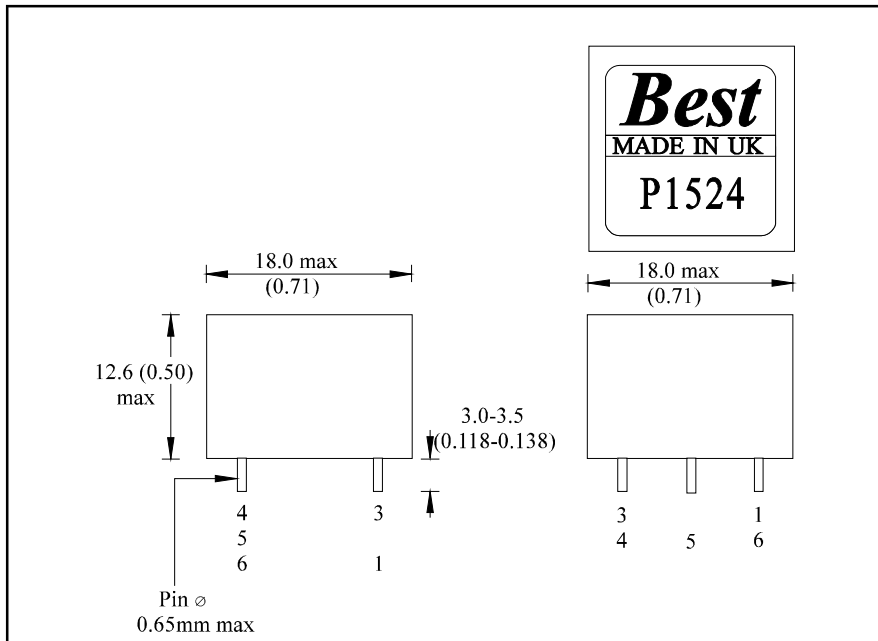
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# P1524

## Dimensions



## Connections

Tolerance  $\pm 0.3\text{mm}$  ( $\pm 0.012$  inch)  
Recommended PCB hole size 1mm  $\varnothing$  (0.04 inch)

## Information

### Construction

Dimensions are shown in millimetres (inches).

Geometric centres of outline and pin grid coincide within a tolerance circle of 0.6mm $\varnothing$ .

Windings may be used interchangeably as primary or secondary.

### Safety

Constructed in accordance with IEC 60950-1, EN60950-1, supplementary insulation, and UL 60950-1, reinforced insulation, 250Vrms maximum working voltage, flammability class V-0. Distances through solid insulation 0.4mm minimum.

### Absolute Maximum Ratings

(Ratings of components independent of circuit)

Short term isolation voltage (15s)  
4.6kV rms, 6.5kV DC

DC current  
100 $\mu$ A

Storage temperature  
-40 $^{\circ}$ C to +125 $^{\circ}$ C

Lead Temperature, 10s  
260 $^{\circ}$ C

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