

Description:

SMD3188 is a low distortion micro surface transformer, suitable for use in extremely small needs Applications with high performance and safe isolation to international standards in case size.

This part complies with RoHS Directive 2002-95-EC and is suitable for lead-free and conventional placement And reflux. Despite the very small size, the performance is comparable to that of much larger components.

The SMD3188 offers fully enhanced insulation and is both voice telecommunication and low speed data communication Ideal for matching 600 Ω and complex impedance telephone lines. 600 Ω telephone Lines are matched directly by the SMD3188 without external compensation elements. In instrumentation applications The SMD3188 can provide a broadband frequency response from 50Hz to 50kHz.

Features: *Lead-free (Pb-free) *Surface Mount *Vacuum encapsulated *600ΩNormal Applications: *Telecommunications *V.22bis modems *Voice *Instrumentation

Electrical parameters: The following parameters are typical values. The actual values shall be subject to the actual measurement of the product

Parameter	Conditions	Minimum value	Typical value	Maximum value	Unit
Insertion loss	f=2KHz	-	-	3.5	dB
Frequency response	200Hz-4KHz			±0.2	dB
Return loss	200Hz-4KHz	18	-	-	dB
Distortion	f=450Hz OdBm in line 3rd Harmonic	_	_	-50	dBm
Balance	DC-5KHz Method TG25	80		-	dB
Saturation	Excitation 50Hz 250Vrms Output voltage across lime	-	- -	10 65	Vrms Vpeak
Voltage isolation	50Hz DC	3.88 5.5		-	KVrms KV
Operating range Storage temperature Humidity	Ambient temperature	-25 -40 -		+85 +125 95	С С %R. H.

Lumped equivalent circuit parameters are shown in the figure on the right:

DC resistance	Main winding	168	-	206	Ω
Leakage inductance		2.9		3.5	mH
Shunt inductance	100mV 200Hz	1.1	-	3.2	Н
Shunt loss	100mV 200Hz	3.5	-	10	kΩ

Product picture printing is for reference only,

subject to the actual product

YHDC: SMD3188

Notes:

- 1. Third harmonic typically exceeds other harmonics by 20dB.
- 2. Components are 100% tested at 6.5 kVDC.
- 3. Caution: do not pass DC through windings.Telephone line current,etc. must be diverted sing choke or semiconductor line hold circuit.
- 4. At signal levels greater than 100mV, Lp will increase and Rp will decrease slightly but the effect is usually favourable to the return loss characteristic.

Equivalent circuit:





600Ω matching circuit:



European CTR21 composite matching circuit:



Dimensions: (in:mm±0.3):



Security:

Manufactured from materials conforming to flammability requirements of UL94V-0. Distance through reinforced insulation 0.4mm minimum.

Creepage and clearances in circuit are 7mm minimum where PCB pads do not exceed 3mmØ. 250Vrms maximum working voltage.

Welding (reflow soldering) precautions:

Welding temperature: ≤260[°]C Welding time: ≤10S