

MRFXF0032

1:1 SMT TRANSFORMER

RoHS Compliant and Pb-Free Product Package: S-20A



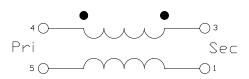


Features

- Frequency Range 45 –1200 MHz
- Low Cost and RoHS Compliant
- Transmission Line Type
- Industry Standard SMT package
- Available in Tape-and -Reel
- 75 Ohms Characteristic Impedance

Applications

- Broadband
- Wireless Communications



Schematic

Product Description

The MRFXF0032 Transformer is designed for applications that require very small, low cost, and highly reliable surface mount components. Applications may be found in broadband, wireless and other communications systems. These units are built Lead-Free and RoHS compliant and feature welded wire construction for increased reliability. S-Parameters are available on request.

Specifications

| Parameter | Min. | Тур. | Max. | Unit | Condition |
|--------------------------------|------------------------|------|------|------|--|
| | | | | | Typical values represent Mid-Band performance at 25 °C |
| Frequency Range | 45 | | 1200 | MHz | |
| Insertion Loss, 45 - 100 MHz | | 0.4 | 0.5 | dB | |
| Insertion Loss, 100 - 600 MHz | | 0.5 | 0.6 | dB | |
| Insertion Loss, 600 - 1200 MHz | | 0.6 | 0.8 | dB | |
| Amplitude Balance | | 0.5 | 1.50 | dB | |
| Phase Balance | | 4 | 10 | ۰ | Nominal Phase Difference is 180° |
| Input Return Loss | 20 | 25 | | dB | |
| Impedance Ratio | 1:1 | | | | |
| Type - Transmission Line | Unbalanced to Balanced | | | | |

Absolute Maximum Ratings

| Parameter | Rating | Unit |
|-----------------------|-------------|------|
| RF Power | 2 | Watt |
| Operating Temperature | -40 to +85 | °C |
| Storage Temperature | -55 to +100 | °C |



Caution! ESD sensitive device.

Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability. Specified typical performance or functional operation of the device under Absolute Maximum Rating conditions is not implied.

RoHS status based on EUDirective 2002/95/EC (at time of this document revision).

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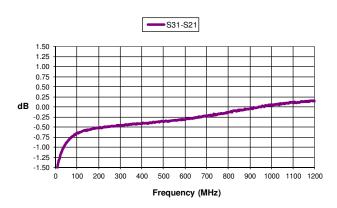
Typical Data

Return Loss -S11 0 -5 -10 -15 -25 -30 -35 -40 0 100 200 300 400 500 600 700 800 900 1000 1100 1200

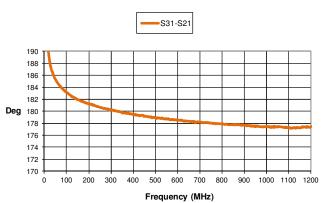


Amplitude Balance

Frequency (MHz)



Phase Balance





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Pin Out

| Pin | Function |
|-----|--------------------------|
| 1 | Secondary (Output 2) |
| 2 | NC |
| 3 | Secondary Dot (Output 1) |
| 4 | Primary Dot (Input) |
| 5 | Primary (Ground) |

S20A Package Drawing

Dimensions in inches (millimeters)

