



RoHS Compliant and Pb-Free Product
Package: S22

Features

- Frequency Range: 50 MHz to 3000 MHz
- Low Loss: <1.0 dB typ.
- Excellent Return Loss: 24 dB typ.
- Characteristic Impedance: 50 Ω
- Miniature S.M. Package: .150in x .118in

Applications

- Wideband Receivers for Wireless Communication Systems
- Frequency Synthesizers, Software Controlled Radios & Antenna Systems

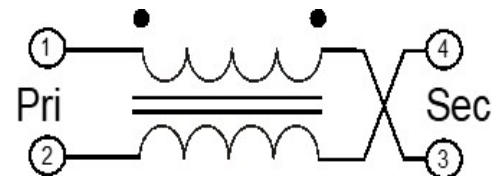
Specifications

Parameter	Specification			Units
	Min	Typ.	Max.	
Operating Frequency Range	50		3000	MHz
Insertion Loss				
50 – 2000 MHz		1.0	1.2	dB
2000 – 3000 MHz		1.4	2.5	
Amplitude Balance:				
50 – 500 MHz		1.0	2.5	dB
500 – 2000 MHz		0.6	1.3	
2000 – 3000 MHz		0.5	0.8	
Phase Balance				
50 – 500 MHz		6	15	Degrees
500 – 3000 MHz		4	8	
Input Return Loss:				
50 – 500 MHz	20	24		dB
500 – 2000 MHz	17	24		
2000 – 3000 MHz	11	17		
Nominal Impedance	50 Ω			
Impedance Ratio	1:1			
Transformer Type	Unbalanced to Balanced			

Product Description

The MRFXF0589 transformer is a two wire transformer designed for applications that require small, low cost, highly reliable surface mount components in high performance RF systems. These units are lead-free, RoHS compliant and available in Tape-and-Reel.

Schematic Diagram



Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended applications 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 not applied.

RoHS Status based on EU Directive 2002/95/EC (at the time of this document revision)

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Absolute Maximum Ratings

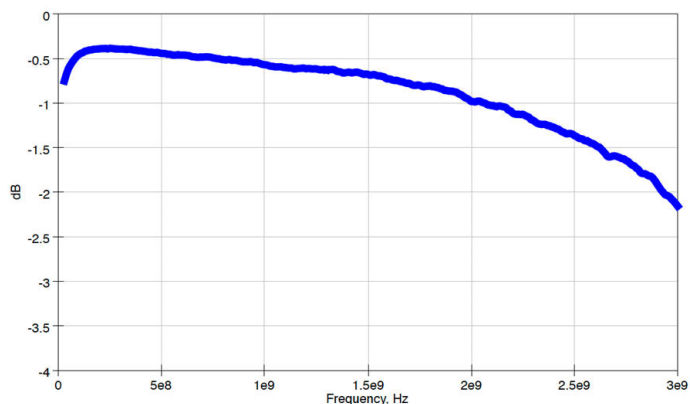
Power Handling	2W
Operating Temp	-40°C to +100°C
Storage Temp	-40°C to +100°C



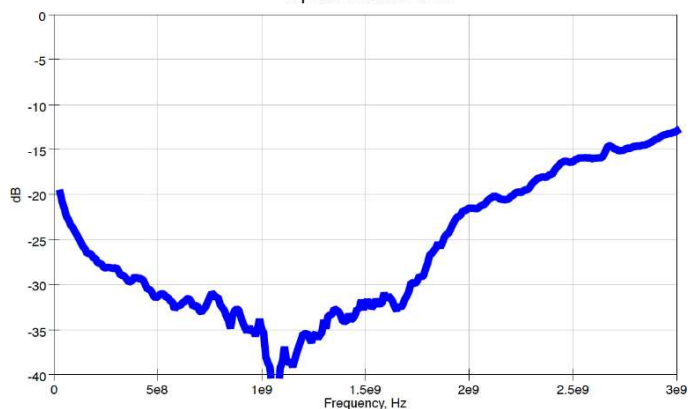
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Typical Data

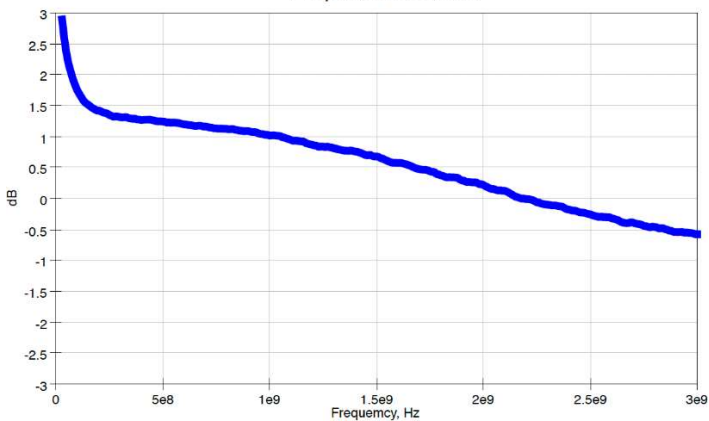
Insertion Loss



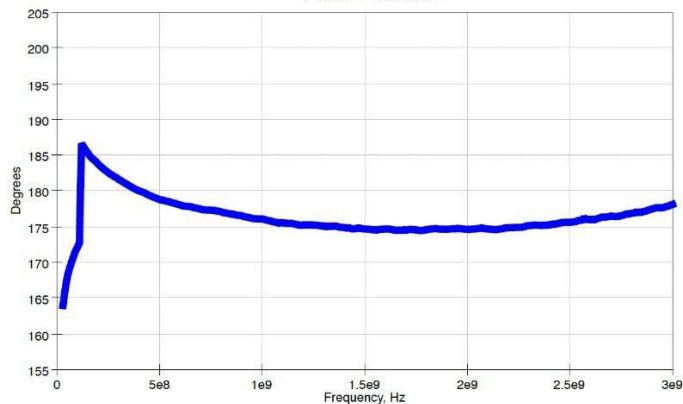
Input Return Loss



Amplitude Balance



Phase Balance



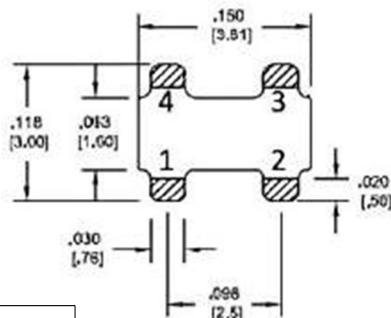


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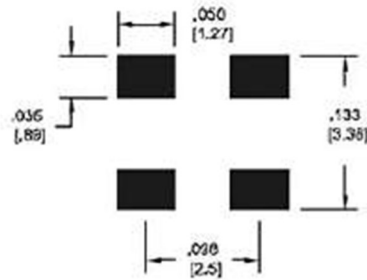
Connections

PIN	FUNCTION
1	Primary Dot (Input)
2	Primary (Ground)
3	Secondary Dot (Output 1)
4	Secondary (Output 2)

S22 Package Drawing



Pin 1 as a dot on the core.



PCB FOOTPRINT

