RFXF3513

1:1 SMT TRANSFORMER

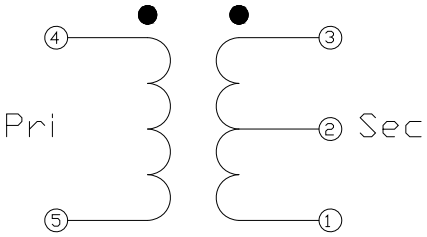
Package: S-20

Features

- Frequency Range .4MHz to 500MHz
- Low Cost and RoHS Compliant
- Industry Standard SMT package
- Available in Tape-and-Reel
- 50Ω Characteristic Impedance
- Flux Coupled

Applications

- Broadband/CATV
- Wireless



Schematic

Product Description

The RFXF3513 Transformer is designed for applications that require 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. S-Parameters are available on request.

Optimum Technology Matching® Applied

☐ GaAs HBT	☐ SiGe BiCMOS	☐ GaAs pHEMT	☐ GaN HEMT
☐ GaAs MESFET	☐ Si BiCMOS	☐ Si CMOS	☐ BiFET HBT
☐ InGaP HBT	☐ SiGe HBT	☐ Si BJT	☐ LDMOS

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Absolute Maximum Ratings

Parameter	Rating	Unit
RF Power	2	W
Operating Temperature	-45 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 (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					Typical values represent Mid-Band performance at 25 °C
Frequency Range	.4		500	MHz	
Insertion Loss < 1 dB	1		100	MHz	
Insertion Loss < 2 dB	.5		300	MHz	
Insertion Loss < 3 dB	.4		500	MHz	
Amplitude Balance 1 MHz to 100 MHz		0.02	0.1	dB	
Amplitude Balance .5 MHz to 300 MHz		0.2	0.6	dB	
Amplitude Balance .4 MHz to 500 MHz		0.5	2.0	dB	
Phase Balance 1 MHz to 100 MHz		1	2	°	Nominal Phase Difference is 180°
Phase Balance .4 MHz to 500 MHz		2	5	°	Nominal Phase Difference is 180°
Impedance Ratio, P:S	1:1				
Type - Flux Coupled	Unbalance to Balanced				

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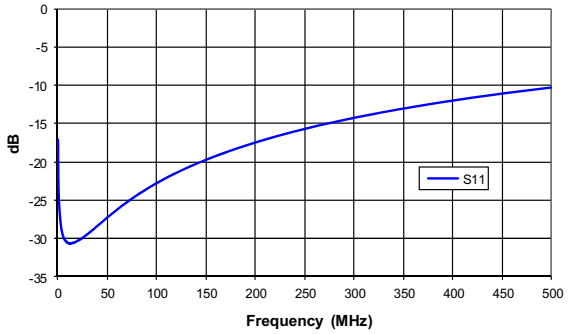
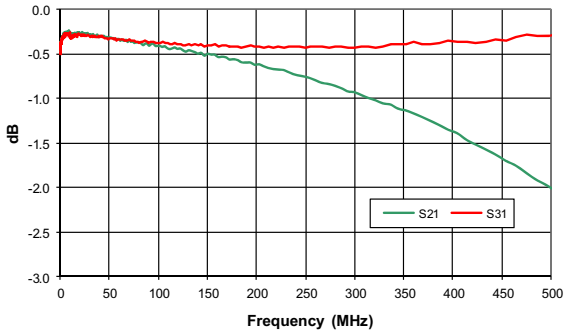
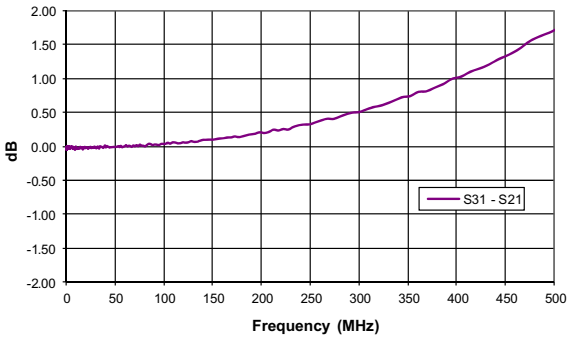
Input Return Loss



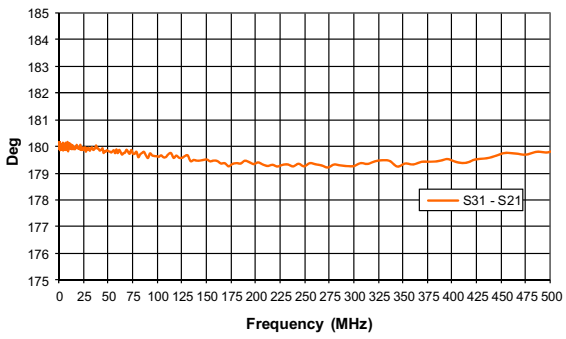
Insertion Loss



Amplitude Balance



Phase Balance

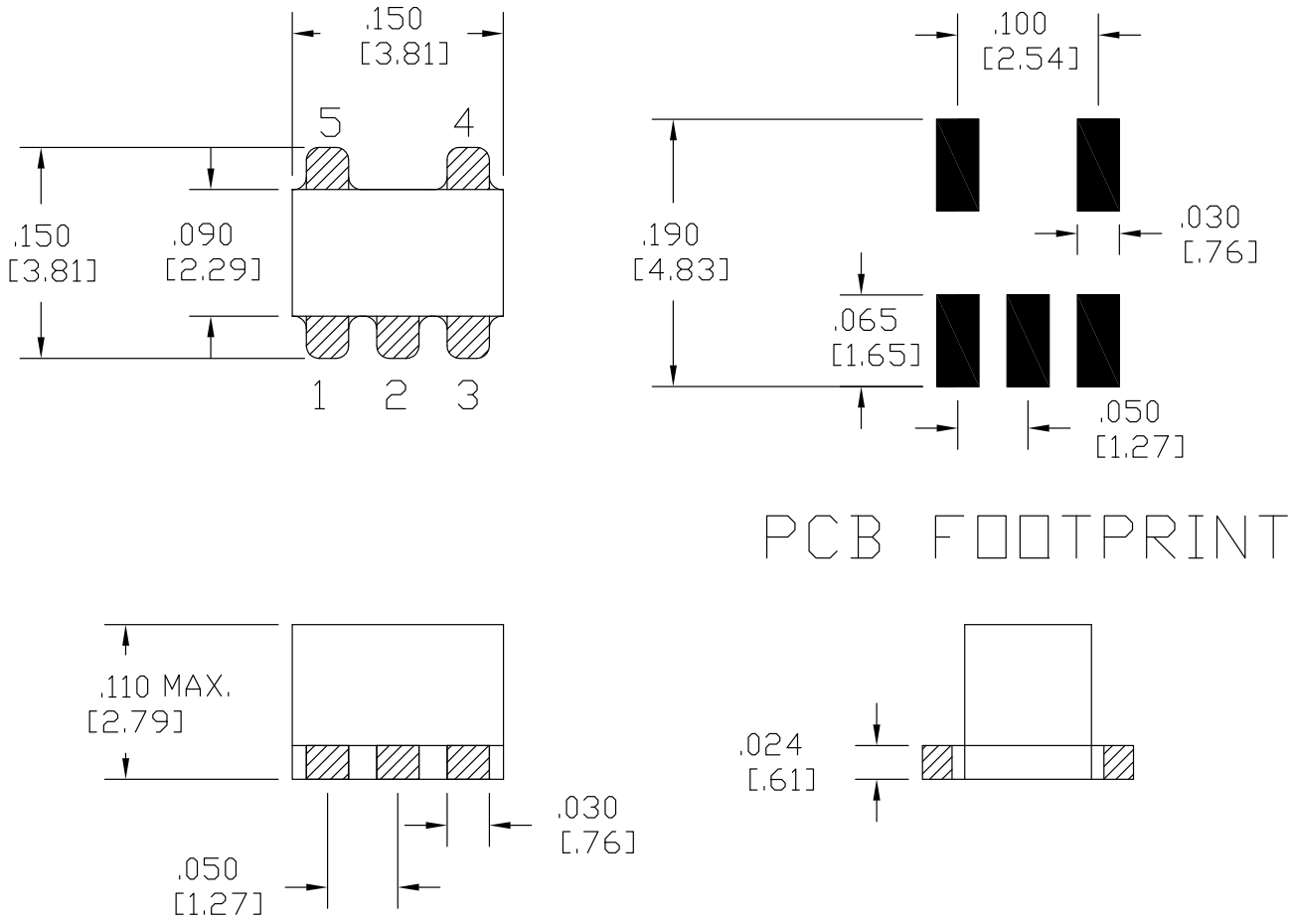


Pin Names and Description

Pin	Function	Description
1	Secondary	Output 2.
2	Secondary CT	Ground.
3	Secondary Dot	Output 1.
4	Primary Dot	Input.
5	Primary	Ground.

Package Drawing - S20

Dimensions in inches (millimeters)



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Ordering Information

Ordering Code	Description	Reel Size	Package
RFXF3513SB	.4MHz to 500MHz 1:1 SMT Transformer	N/A	5-Piece bag
RFXF3513SQ	.4MHz to 500MHz 1:1 SMT Transformer	N/A	25-Piece bag
RFXF3513SR	.4MHz to 500MHz 1:1 SMT Transformer	13”	100-Piece reel
RFXF3513TR13	.4MHz to 500MHz 1:1 SMT Transformer	13”	1000-Piece reel

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