

Package: S-20

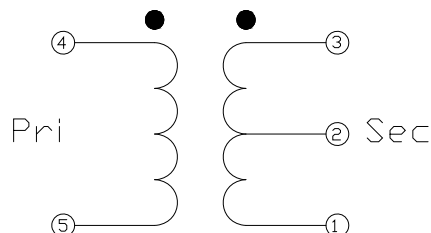


## Features

- 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

- |                                      |                                      |                                     |                                    |
|--------------------------------------|--------------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> GaAs HBT    | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT  |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS    | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT   | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT     | <input type="checkbox"/> 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.

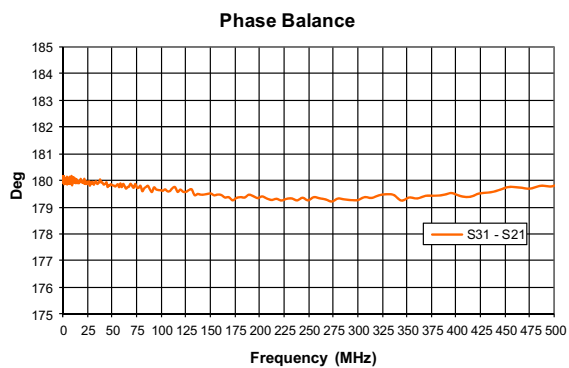
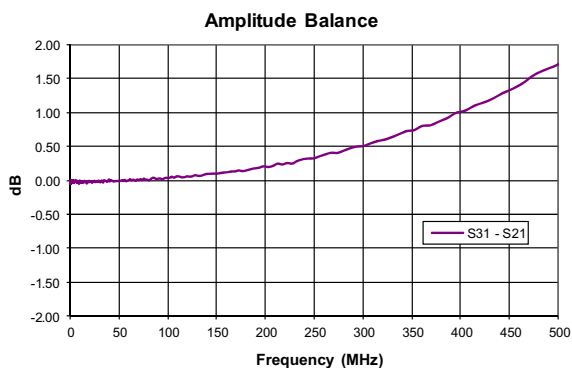
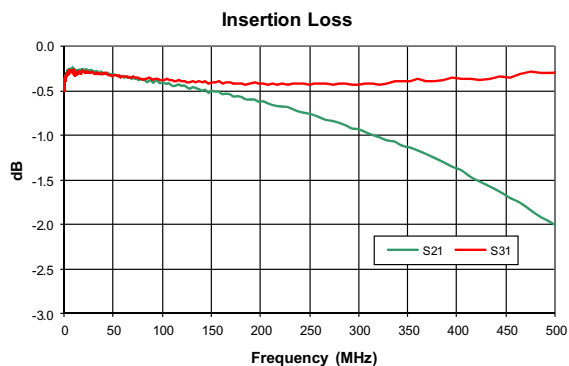
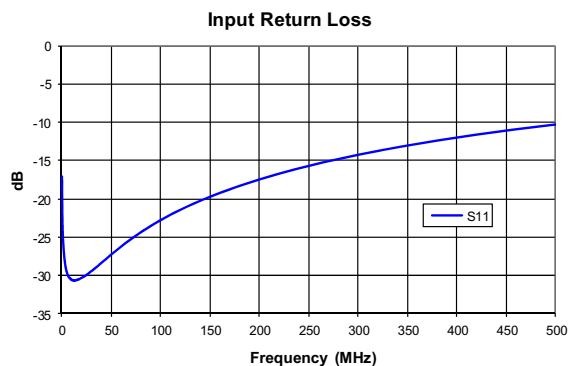
Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability. Specified typical performance or functional operation of the device under Absolute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

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RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

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

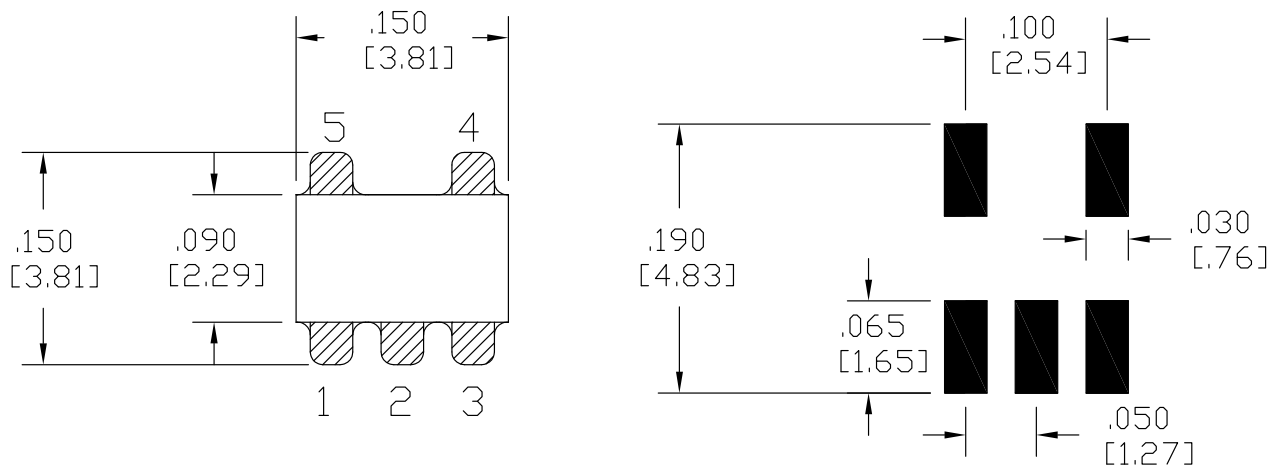


**Pin Names and Description**

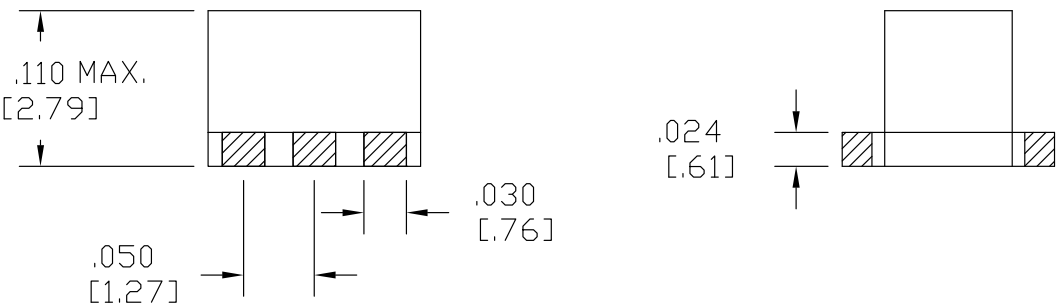
Pin	Function	Description
1	Secondary	Output 2.
2	Secondary CT	Ground.
3	Secondary Dot	Output 1.
4	Primary Dot	Input.
5	Primary	Ground.

**Package Drawing - S20**

Dimensions in inches (millimeters)



PCB FOOTPRINT



## Ordering Information

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