**RFXF3513**

1:1 SMT TRANSFORMER

**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

**Product Description**
The RFXF3513 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. S-Parameters are available on request.

**Parameter** | **Specification** | **Unit** | **Condition**
--- | --- | --- | ---
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

**Absolute Maximum Ratings**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Rating</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>2</td>
<td>W</td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>-45 to +85</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temp.</td>
<td>-55 to +100</td>
<td>°C</td>
</tr>
</tbody>
</table>

**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.
**Pin Names and Description**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Secondary</td>
<td>Output 2.</td>
</tr>
<tr>
<td>2</td>
<td>Secondary CT</td>
<td>Ground.</td>
</tr>
<tr>
<td>3</td>
<td>Secondary Dot</td>
<td>Output 1.</td>
</tr>
<tr>
<td>4</td>
<td>Primary Dot</td>
<td>Input.</td>
</tr>
<tr>
<td>5</td>
<td>Primary</td>
<td>Ground.</td>
</tr>
</tbody>
</table>

**Package Drawing - S20**
Dimensions in inches (millimeters)