

### Low Cost Frequency Doubler

Rev. V1

#### **Features**

- Input Frequency 50 to 3300 MHz
- Output Frequency 100 to 6600 MHz
- Input Drive +10 dBm (nominal)
- Surface Mount

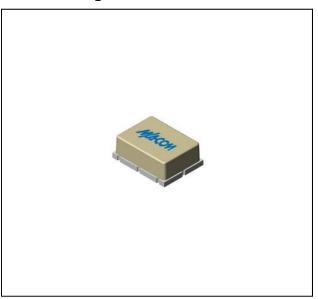
#### Description

The CSFD26 is a passive bridge diode frequency doubler, designed for use in the high volume wireless and test equipment applications. The design utilizes Schottky bridge quad diodes and broadband baluns to attain excellent performance. Due to the use of high temperature solder and welded assembly processes used internally makes it ideal for use in semi-automated and automated assembly. Environmental screening available to MIL-STD-883, MIL-STD-202 or MIL-DTL-28837, consult factory.

### **Ordering Information**

Part Number	Package
CSFD26	Surface Mount

### Product Image



### Electrical Specifications: $Z_0 = 50\Omega$ $P_{in} = +10$ dBm

Parameter	Test Conditions	Units	Typical	Guaranteed	
raiametei Test Conditions		Offics		+25°C	-54º to +85ºC
SSB Conversion Loss (max)	$\begin{array}{l} f_{in} = 50 \text{ to } 400 \text{ MHz} \\ f_{in} = 400 \text{ to } 2500 \text{ MHz} \\ f_{in} = 2500 \text{ to } 3000 \text{ MHz} \\ f_{in} = 3000 \text{ to } 3300 \text{ MHz} \end{array}$	dB	12 12 12.5 13.5	14.5 13.5 14.0 15.5	15 14 14.5 16.0
Suppression Fundamental (min)	$f_{in}$ = 50 to 500 MHz $f_{in}$ = 500 to 3300 MHz	dBc	25 20	22 17	20 15
Third Harmonic Suppression (min)	$f_{in} = 50 \text{ to } 200 \text{ MHz}$ $f_{in} = 200 \text{ to } 3300 \text{ MHz}$	dBc	25 19	22 17	20 15
Input VSWR	$f_{in} = 50$ to 2500 MHz $f_{in} = 2500$ to 3300 MHz		1.5:1 2.0:1		

Commitment to produce in volume is not guaranteed.

<sup>•</sup> India Tel: +91.80.4155721 • China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

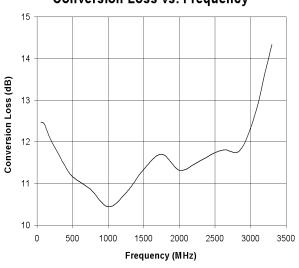


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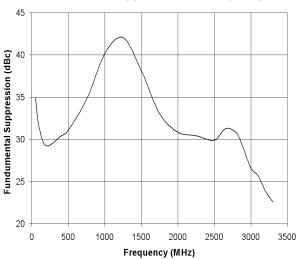
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### **Typical Performance Curves**

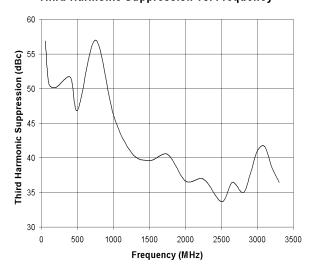
# Conversion Loss vs. Frequency



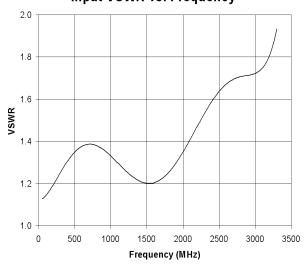
#### Fundumental Suppression vs. Frequency



#### Third Harmonic Suppression vs. Frequency



#### Input VSWR vs. Frequency



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# CSFD26



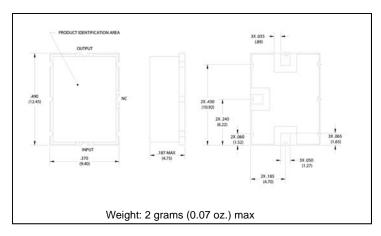
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### **Absolute Maximum Ratings**

Parameter	Absolute Maximum		
Operating Temperature	-54°C to +100°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+23 dBm max @ +25°C +20 dBm max @ +100°C		
Peak Input Current	50 mA DC		

# Outline Drawing: Surface Mount



\* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.