

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**

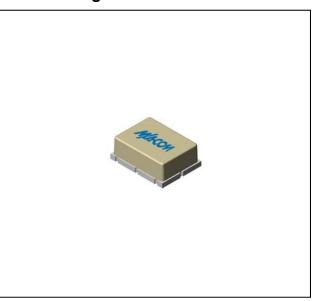
Description

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	
raiailletei				+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)	$f_{in} = 50$ to 200 MHz $f_{in} = 200$ to 3300 MHz	dBc	25 19	22 17	20 15
Input VSWR	$f_{in} = 50 \text{ to } 2500 \text{ MHz}$ $f_{in} = 2500 \text{ to } 3300 \text{ MHz}$		1.5:1 2.0:1		

• North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400

• India Tel: +91.80.4155721

• China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.

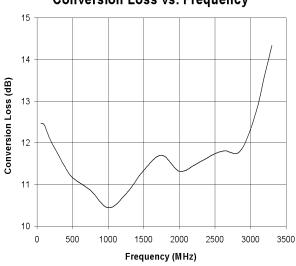


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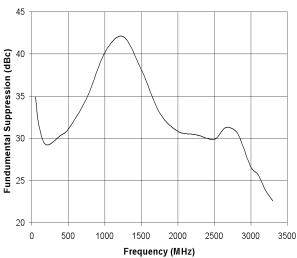
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Typical Performance Curves

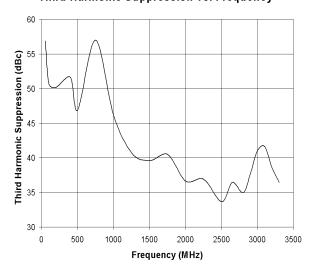
Conversion Loss vs. Frequency



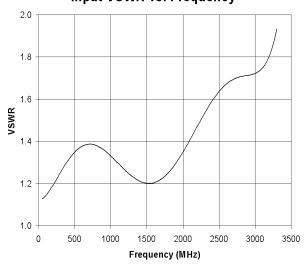
Fundumental Suppression vs. Frequency



Third Harmonic Suppression vs. Frequency



Input VSWR vs. Frequency



Solutions has under development. Performance is based on engineering tests. Specifications are

typical. Mechanical outline has been fixed. Engineering samples

Commitment to produce in volume is not du

CSFD26



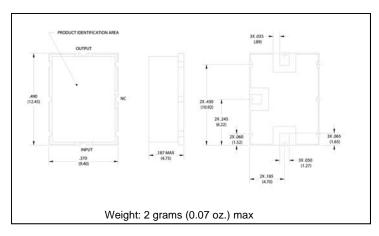
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Absolute Maximum Ratings

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.

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