CSFD26

Low Cost Frequency Doubler

Rev. V1

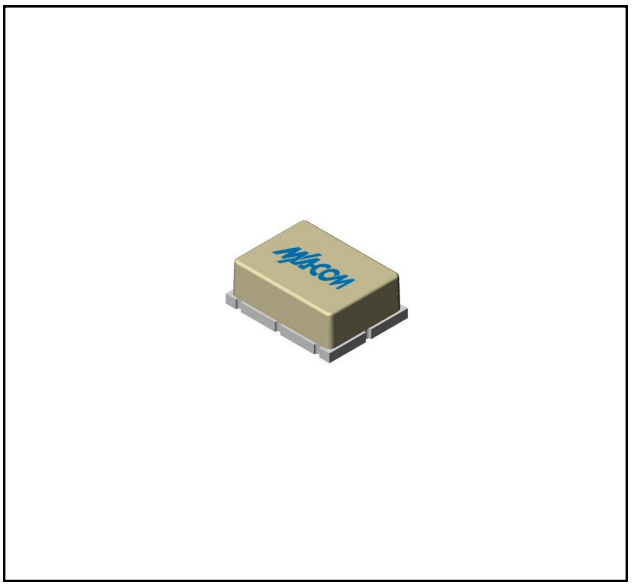
Features

- 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.

Product Image



Ordering Information

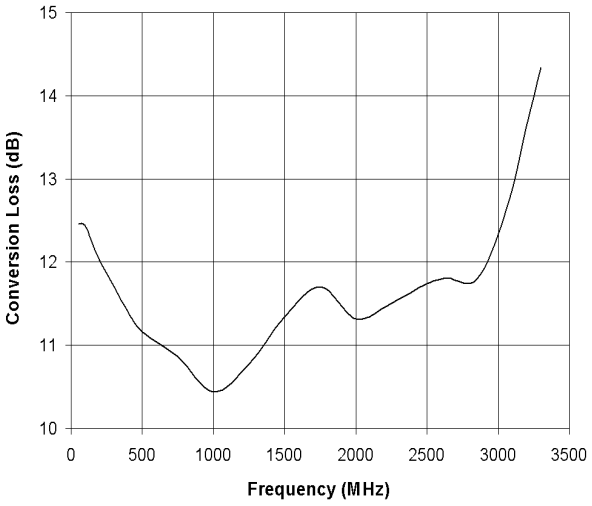
Part Number	Package
CSFD26	Surface Mount

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

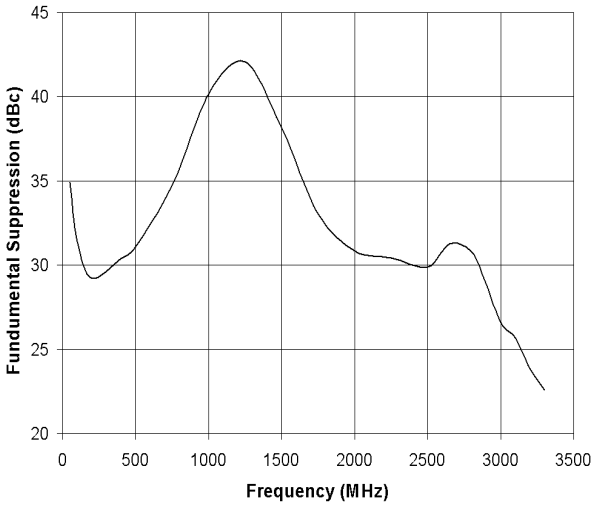
Parameter	Test Conditions	Units	Typical	Guaranteed	
				+25ºC	-54º to +85ºC
SSB Conversion Loss (max)	f_{in} = 50 to 400 MHz f_{in} = 400 to 2500 MHz f_{in} = 2500 to 3000 MHz f_{in} = 3000 to 3300 MHz	dB	12 12 12.5 13.5	14.5 13.5 14.0 15.5	15 14 14.5 16.0
Suppression Fundamental (min)	f_{in} = 50 to 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 to 2500 MHz f_{in} = 2500 to 3300 MHz		1.5:1 2.0:1		

Typical Performance Curves

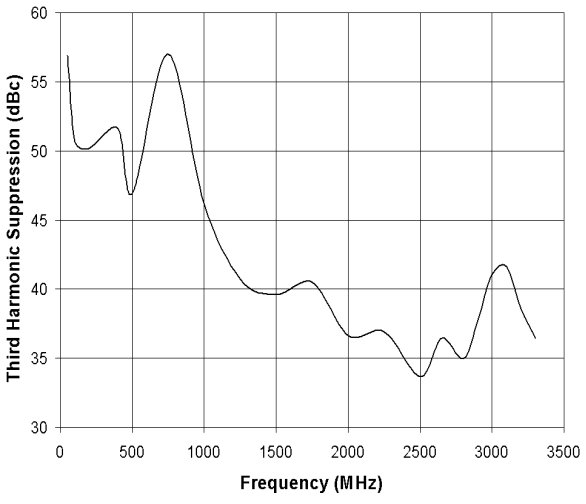
Conversion Loss vs. Frequency



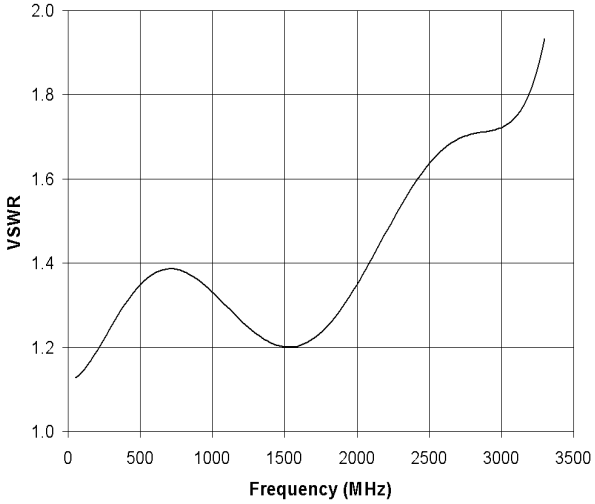
Fundumental Suppression vs. Frequency



Third Harmonic Suppression vs. Frequency



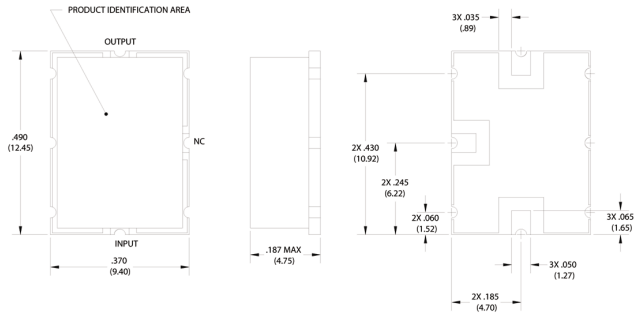
Input VSWR vs. Frequency



Absolute Maximum Ratings

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

Outline Drawing: Surface Mount *



Weight: 2 grams (0.07 oz.) max

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