

Low Cost Frequency Doubler



Rev. V2

Features

- INPUT: 10 TO 2400 MHz
- OUTPUT: 20 TO 4800 MHz
- INPUT DRIVE LEVEL +23 dBm (NOMINAL)
- SURFACE MOUNT

Description

The CSFD25H 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
CSFD25H	Surface Mount

Electrical Specifications: $Z_0 = 50\Omega P_{in} = +23 \text{ dBm}$

Desembles	Test Conditions	Unito	Typical	Guaranteed	
Parameter Test Conditions		Units		+25⁰C	-40º to +85ºC
SSB Conversion Loss (max)	$f_{in} = 10 \text{ to } 2400 \text{ MHz}$	dB	12.0	13.5	13.8
Suppression Fundamental (min)		dBc dBc dBc	35 25 20	25 20 16	24 19 15
Third Harmonic Suppression (min)	$f_{in} = 10 \text{ to } 1000 \text{ MHz}$ $f_{in} = 1000 \text{ to } 2400 \text{ MHz}$	dBc dBc	40 35	30 25	29 24
Input VSWR	$f_{in} = 10 \text{ to } 2400 \text{ MHz}$		2.0:1		

may be available.

cn: ng

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typical. Mechanical outline has been fixed. Engineering samples

Commitment to produce in volume is not gu

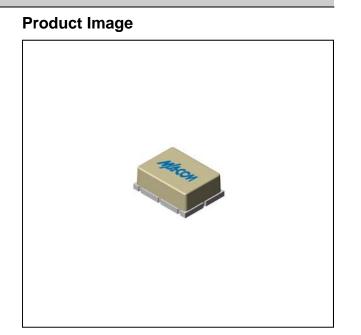
 North America
 Tel: 800.366.2266
 Europe
 Tel: +353.21.244.6400

 India
 Tel: +91.80.4155721
 China
 Tel: +86.21.2407.1588

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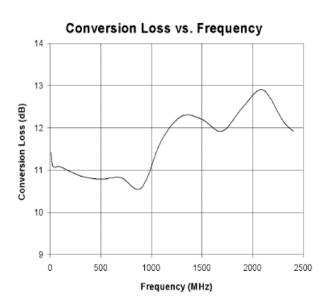


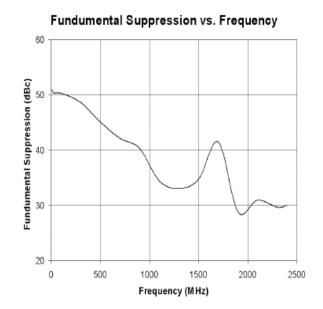
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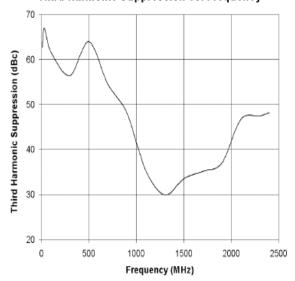


Typical Performance Curves

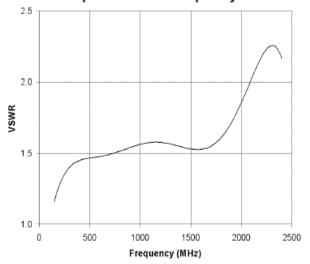




Third Harmonic Suppression vs. Frequency



Input VSWR vs. Frequency



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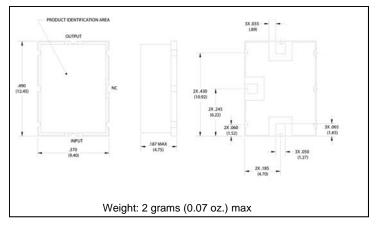
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Absolute Maximum Ratings

Parameter	Absolute Maximum
Operating Temperature	-54°C to +85°C
Storage Temperature	-65°C to +100°C
Peak Input Power	+23 dBm max @ +25⁰C +20 dBm max @ +100⁰C

Outline Drawing: Surface Mount



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

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