

Low Cost Frequency Doubler

Rev. V2

Features

INPUT: 10 TO 2400 MHzOUTPUT: 20 TO 4800 MHz

INPUT DRIVE LEVEL +23 dBm (NOMINAL)

SURFACE MOUNT

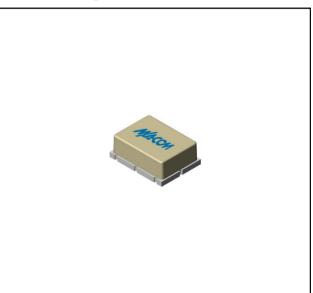
Description

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

Product Image



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

Downwater		Units	Typical	Guaranteed	
Parameter	Test Conditions			+25°C	-40° to +85°C
SSB Conversion Loss (max)	f _{in} = 10 to 2400 MHz	dB	12.0	13.5	13.8
Suppression Fundamental (min)	$f_{in} = 10 \text{ to } 1000 \text{ MHz}$ $f_{in} = 1000 \text{ to } 2000 \text{ MHz}$ $f_{in} = 2000 \text{ to } 2400 \text{ MHz}$	dBc dBc dBc	35 25 20	25 20 16	24 19 15
Third Harmonic Suppression (min)	f_{in} = 10 to 1000 MHz f_{in} = 1000 to 2400 MHz	dBc dBc	40 35	30 25	29 24
Input VSWR	f _{in} = 10 to 2400 MHz		2.0:1		

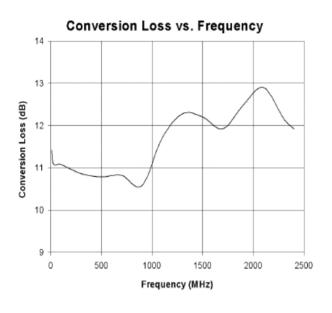
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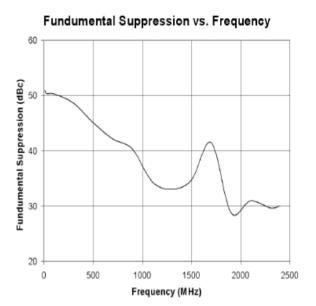


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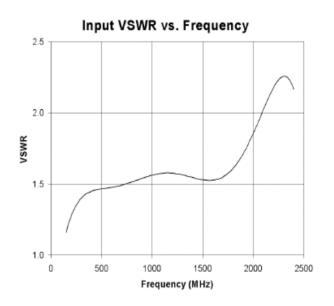
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Typical Performance Curves





Third Harmonic Suppression vs. Frequency 70 60 40 20 0 500 1000 1500 2000 2500 Frequency (MHz)



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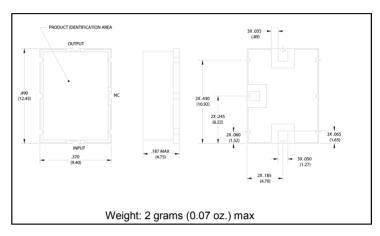
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Absolute Maximum Ratings

Parameter	Absolute Maximum		
Operating Temperature	-54°C to +85°C		
Storage Temperature	-65°C to +100°C		
Peak Input Power	+23 dBm max @ +25°C +20 dBm max @ +100°C		

Outline Drawing: Surface Mount *



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

CSFD25H



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