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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Frequency Doubler

Rev. V3

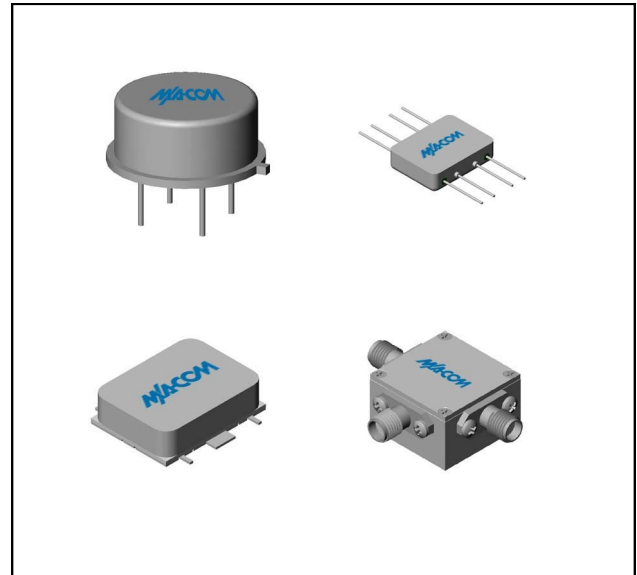
### Features

- Input: 5 - 2400 MHz
- Output: 10 - 4800 MHz
- Input Drive Level: +23 dBm (nominal)
- Hermetically-Sealed Package

### Description

The FD25H is a passive bridge diode frequency doubler, designed for use in the high volume commercial and test equipment applications. The design utilizes Schottky bridge quad diodes and broadband baluns to attain excellent performance. 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
FD25H	TO-8
FD25HC	SMA Connectorized
SFD25H	Surface Mount
MAUC-010499-SFD25H	Surface Mount Screened

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

Parameter	Test Conditions	Units	Typical	Guaranteed	
				+25°C	-54° to +85°C*
SSB Conversion Loss (max)	$f_{in} = 5 - 2400$ MHz	dB	12.0	13.5	13.8
Fundamental Suppression (min)	$f_{in} = 5 - 1000$ MHz $f_{in} = 1000 - 2000$ MHz $f_{in} = 2000 - 2400$ MHz	dBc	35 25 20	25 20 16	24 19 15
Third Harmonic Suppression	$f_{in} = 5 - 500$ MHz $f_{in} = 500 - 2400$ MHz	dBc	40 35	30 25	29 24
Input VSWR	$f_{in} = 5 - 2400$ MHz	dB	1.5:1	—	—

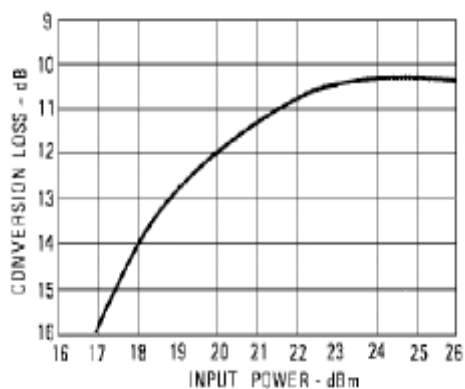
\* The FD25HC specification limits apply at 0°C to +50°C.

### Absolute Maximum Ratings

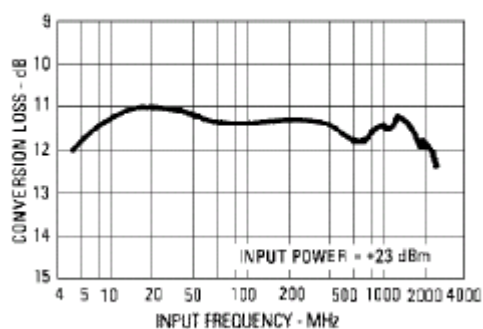
Parameter	Absolute Maximum
Operating Temperature	-54°C to +100°C
Storage Temperature	-65°C to +100°C
Peak Input Power	+27.6 dBm max @ +25°C +25.0 dBm max @ +100°C

### Typical Performance Curves

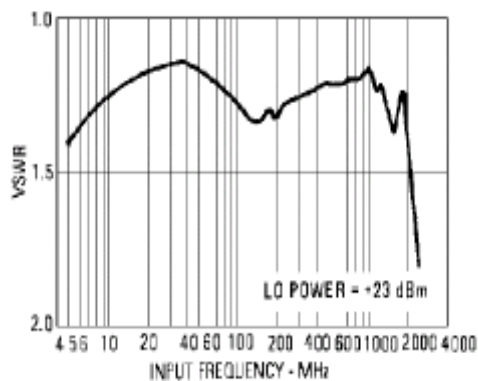
Conversion Loss vs. Input Power



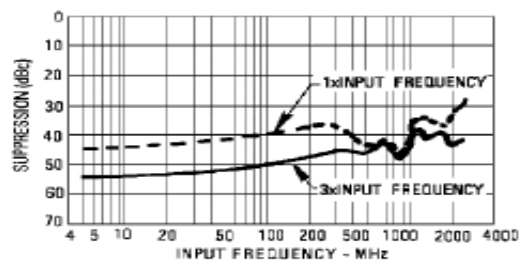
Conversion Loss vs. Input Frequency



VSWR vs. Frequency



Harmonic Suppression vs. Input Frequency

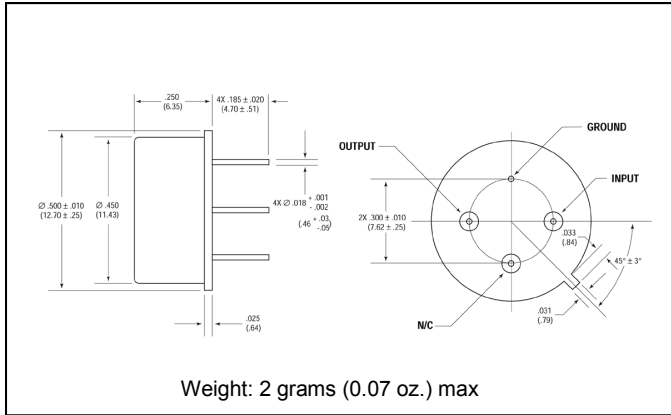




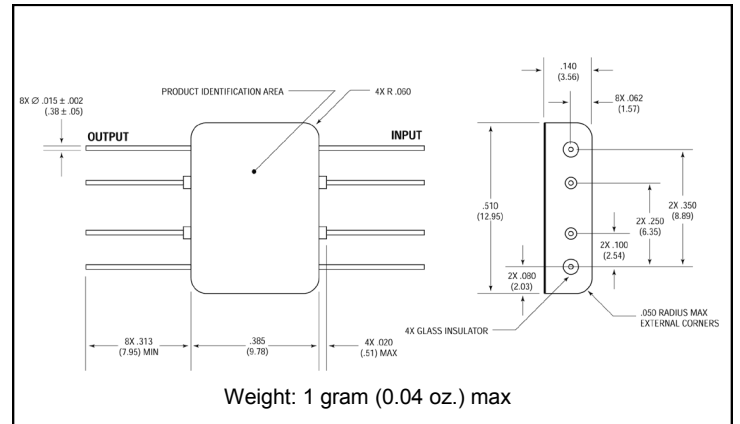
## Frequency Doubler

Rev. V3

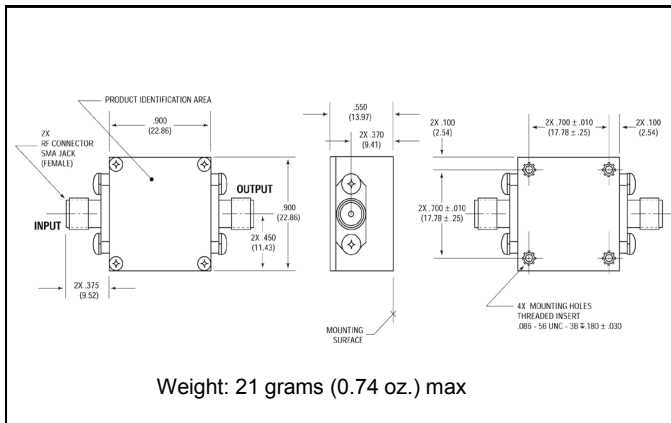
### Outline Drawing: TO-8 \*



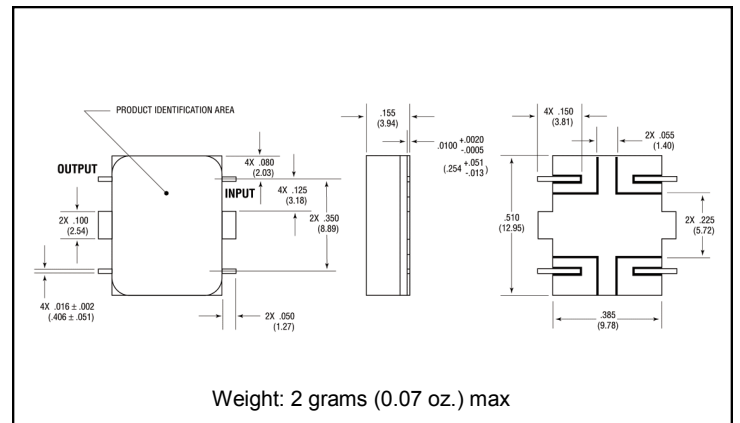
### Outline Drawing: Flatpack \*



### Outline Drawing: SMA Connectorized \*



### Outline Drawing: Surface Mount \*



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

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