FD26 / FD26C / FD26E / SFD26

Frequency Doubler

Rev. V2

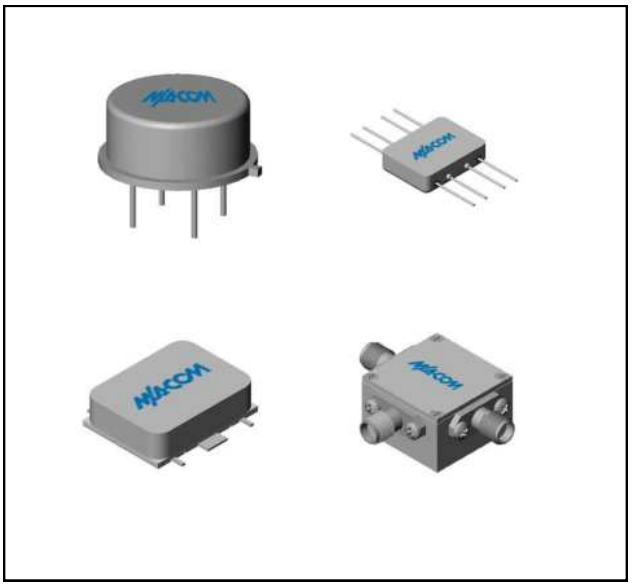
Features

- INPUT: 50 TO 3300 MHz
- OUTPUT: 100 TO 6600 MHz
- INPUT DRIVE LEVEL +10 dBm (NOMINAL)
- HERMETICALLY-SEALED PACKAGE

Description

The FD26 is a passive bridge diode frequency doubler, designed for use in military, commercial and test equipment applications. The design utilizes Schottky bridge quad diodes and broadband soft dielectric and/or ferrite baluns to attain excellent performance. The use of high temperature solder assembly processes used internally makes it ideal for use in manual and semi-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
FD26	TO-8
FD26C	SMA Connectorized
FD26E	Flatpack
SFD26	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} = 5 to 400 MHz f_{in} = 400 to 2500 MHz f_{in} = 2500 to 3000 MHz f_{in} = 3000 to 3300 MHz	dB dB dB dB	12.0 12.0 12.5 13.5	14.5 13.5 14.0 15.5	15.0 14.0 14.5 16.0
Fundamental Suppression (min)	f_{in} = 50 to 500 MHz f_{in} = 500 to 3300 MHz	dBc dBc	25 20	22 17	20 15
Third Harmonic Suppression	f_{in} = 50 to 200 MHz f_{in} = 200 to 3300 MHz	dBc 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		

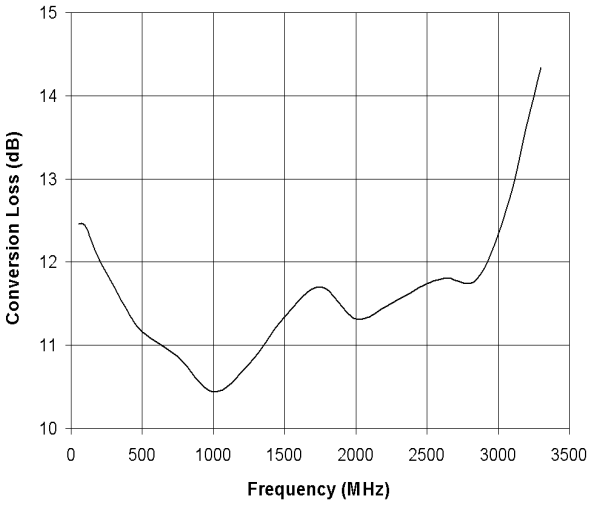
* The FD26C specification limits apply at 0ºC to +50ºC.

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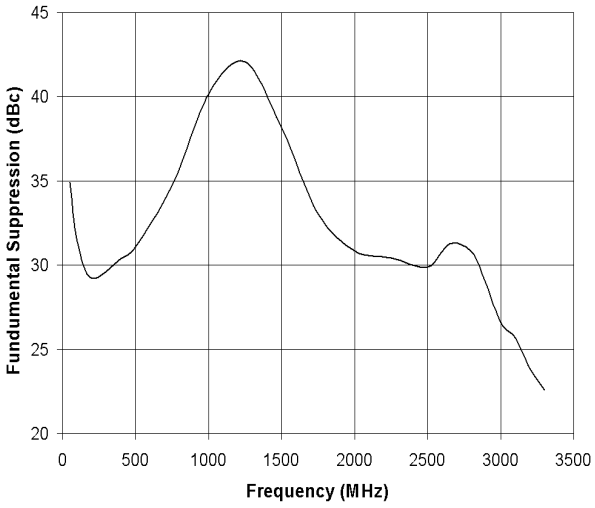
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Typical Performance Curves

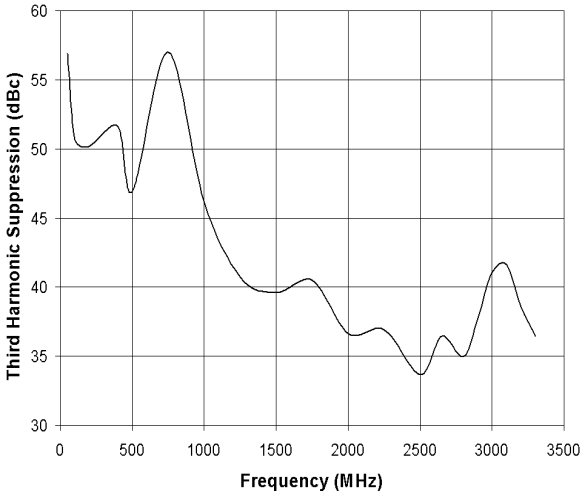
Conversion Loss vs. Frequency



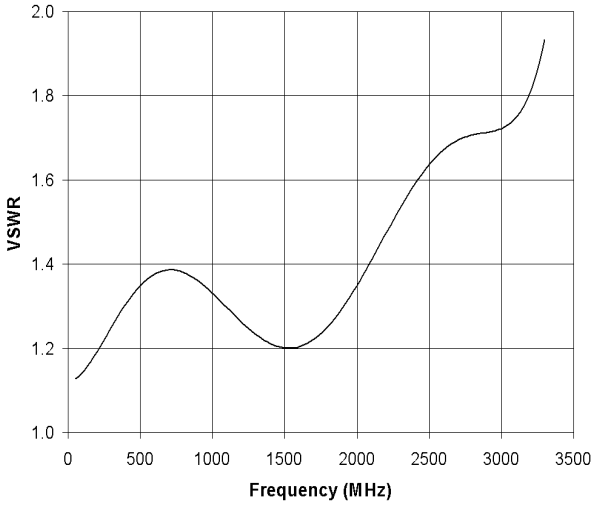
Fundumental Suppression vs. Frequency



Third Harmonic Suppression vs. Frequency



Input VSWR vs. Frequency



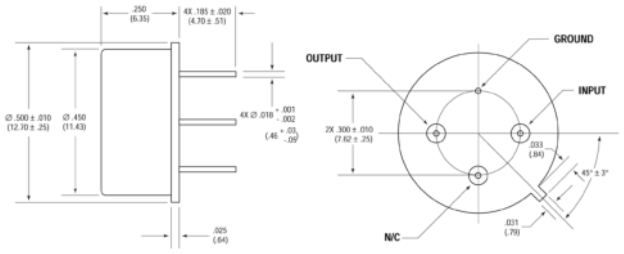
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Absolute Maximum Ratings

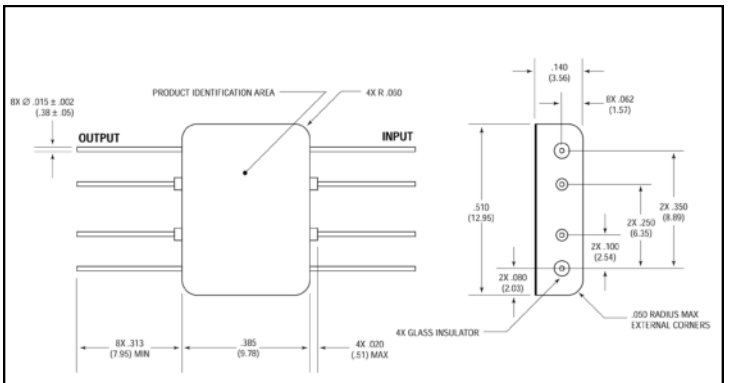
Parameter	Absolute Maximum
Operating Temperature	-54ºC to +100ºC
Storage Temperature	-65ºC to +100ºC
Peak Input Power	+23 dBm max @ +25ºC +20 dBm max @ +100ºC

Outline Drawing: TO-8 *



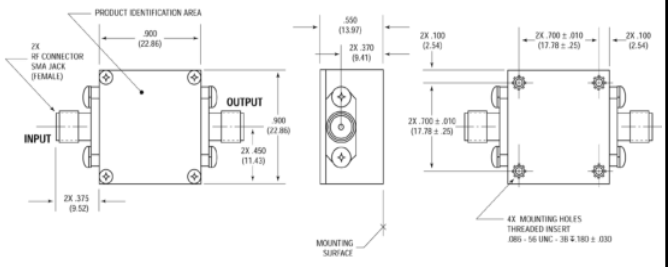
Weight: 2 grams (0.07 oz.) max

Outline Drawing: Flatpack *



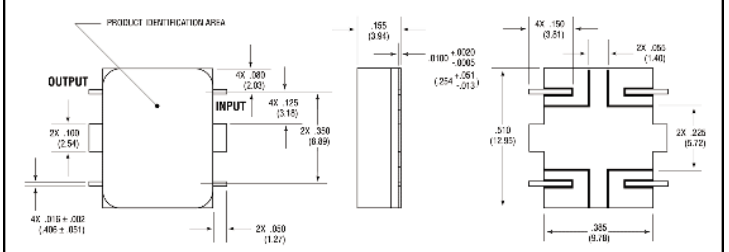
Weight: 1 gram (0.04 oz.) max

Outline Drawing: SMA Connectorized *



Weight: 21 grams (0.74 oz.) max

Outline Drawing: Surface Mount *



Weight: 2 grams (0.07 oz.) max

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

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