

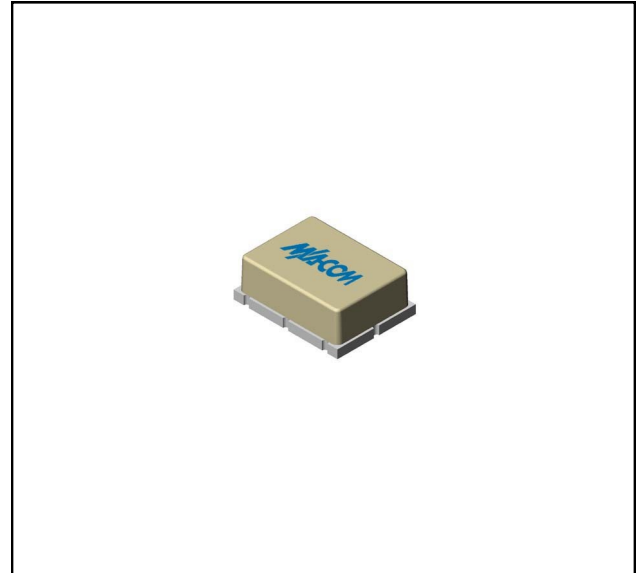
### Features

- 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.

### Product Image



### Ordering Information

| Part Number | Package       |
|-------------|---------------|
| CSFD25H     | Surface Mount |

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

| Parameter                        | Test Conditions             | Units | Typical | Guaranteed |               |
|----------------------------------|-----------------------------|-------|---------|------------|---------------|
|                                  |                             |       |         | +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)    | $f_{in} = 10$ to 1000 MHz   | dBc   | 35      | 25         | 24            |
|                                  | $f_{in} = 1000$ to 2000 MHz | dBc   | 25      | 20         | 19            |
|                                  | $f_{in} = 2000$ to 2400 MHz | dBc   | 20      | 16         | 15            |
| Third Harmonic Suppression (min) | $f_{in} = 10$ to 1000 MHz   | dBc   | 40      | 30         | 29            |
|                                  | $f_{in} = 1000$ to 2400 MHz | dBc   | 35      | 25         | 24            |
| Input VSWR                       | $f_{in} = 10$ to 2400 MHz   |       | 2.0:1   |            |               |

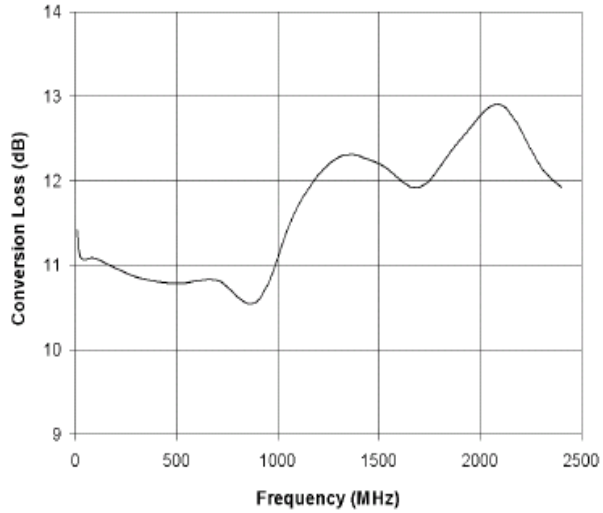
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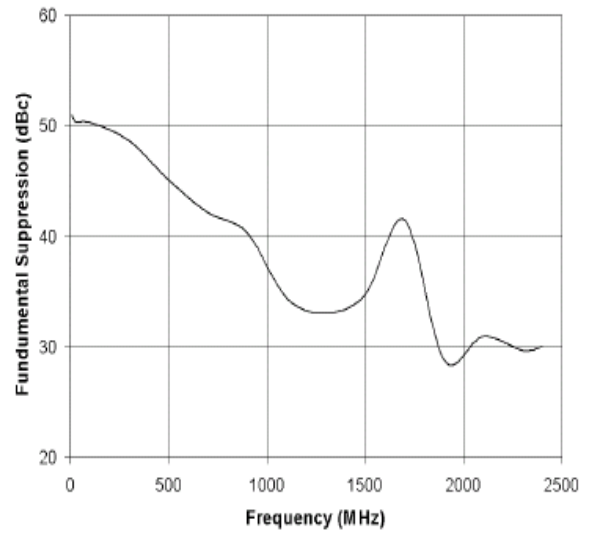
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### Typical Performance Curves

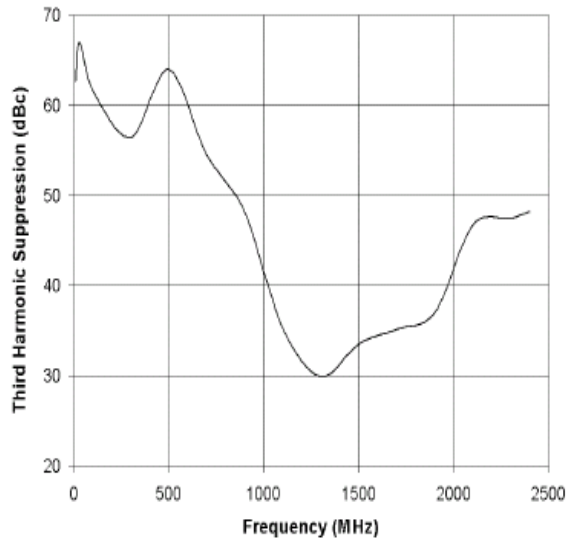
#### Conversion Loss vs. Frequency



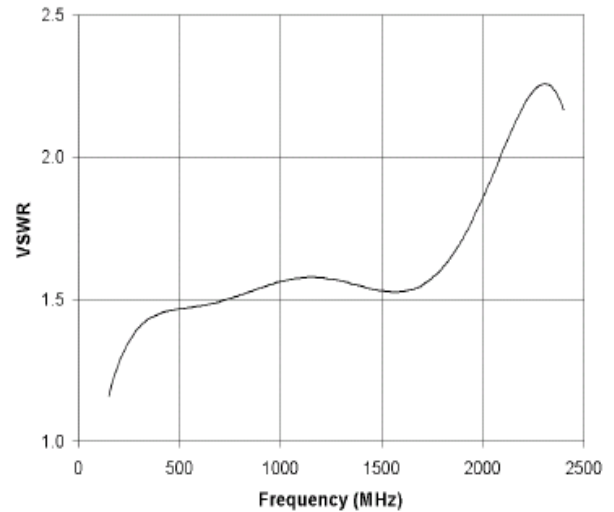
#### Fundamental Suppression vs. Frequency



#### Third Harmonic Suppression vs. Frequency



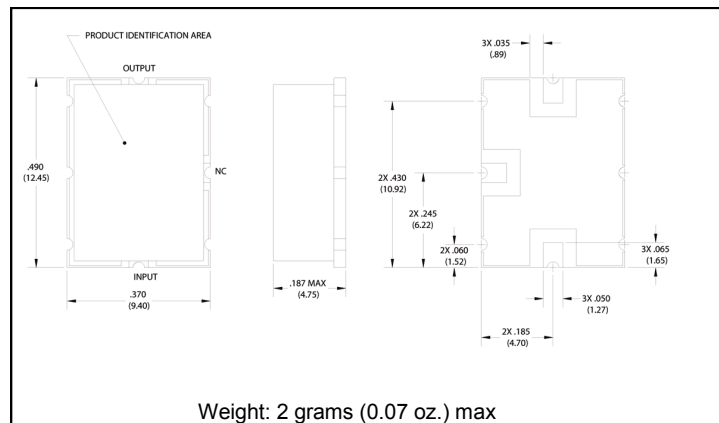
#### Input VSWR vs. Frequency



### 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<br>+20 dBm max @ +100°C |

### Outline Drawing: Surface Mount \*



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

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