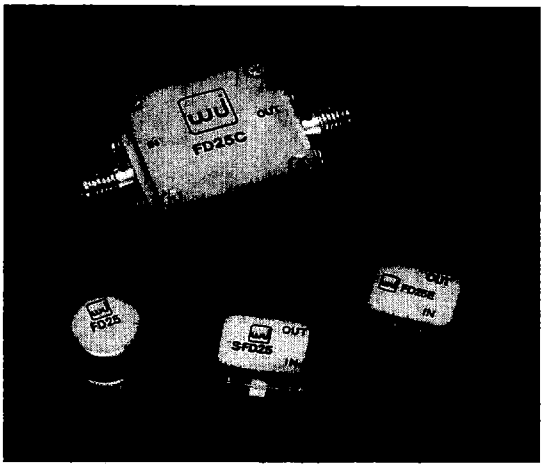
FD25 / FD25C
FD25E / SFD25

FREQUENCY DOUBLER



- ◆ INPUT FREQUENCY 5 TO 2400 MHz
- ◆ OUTPUT FREQUENCY 10 TO 4800 MHz
- ◆ INPUT DRIVE LEVEL +10 dBm (NOMINAL)
- ◆ HERMETICALLY SEALED
- ◆ AVAILABLE IN SURFACE MOUNT
- ◆ MIL–M–28837 EQUIVALENT LEVEL SCREENING AVAILABLE

Guaranteed Specifications[1,2,3]

Characteristics	Typ.	+25°C	-54°C to +85°C	Test Conditions
Conversion Loss (Max.)	11.5 dB	13.0 dB	13.5 dB	f_{in} 5 to 2400 MHz
Fundamental Suppression (Min.)	35 dBc 25 dBc 20 dBc	25 dBc 20 dBc 16 dBc	23 dB 18 dB 14 dB	f_{in} 5 to 1000 MHz f_{in} 1000 to 2000 MHz f_{in} 2000 to 2400 MHz
Third Harmonic Suppression (Min.)	50 dBc 40 dBc 35 dBc	40 dBc 30 dBc 25 dBc	38 dB 28 dB 23 dB	f_{in} 5 to 500 MHz f_{in} 500 to 1000 MHz f_{in} 1000 to 2400 MHz
Input VSWR	1.5:1			f_{in} 5 to 2400 MHz

Notes:
1. Measured in 50-ohm system with f_{in} at +l0 dBm.
2. Guaranteed conversion loss values for FD25C are 0.5 dB worse than values listed and guaranteed over 0°C to 50°C temperature range only.
3. Typical values are measured at +25°C and are not guaranteed.

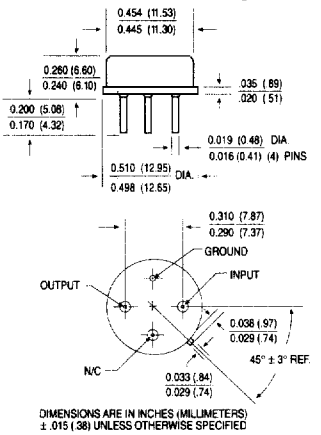
Absolute Maximum Ratings

Operating Temperature .....-54°C to +100°C
Storage Temperature .....-65°C to +100°C
Peak input Power .....+23 dBm at +25°C, +20 dBm at +100°C

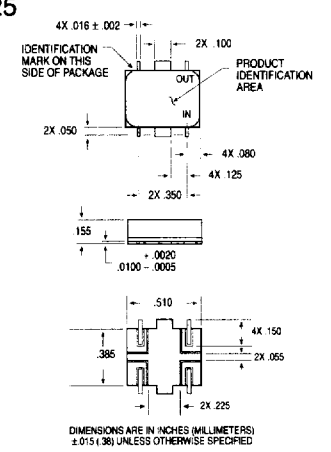
Weight
FD25: 2 grams (0.07 oz.) max.
FD25C: 20.14 grams (0.71 oz.) max.
FD25E: 2 grams (0.07oz.) max.
SFD25: 2 grams (0.07oz.) max.

Outline Drawings

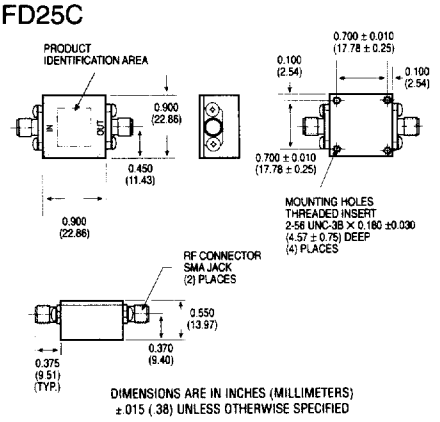
FD25



SFD25



FD25C



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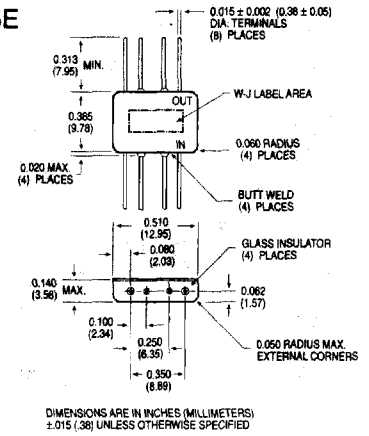
FD25E

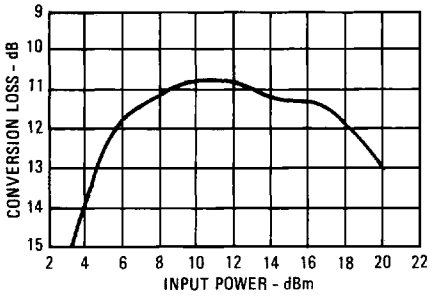


Typical Performance at 25°C

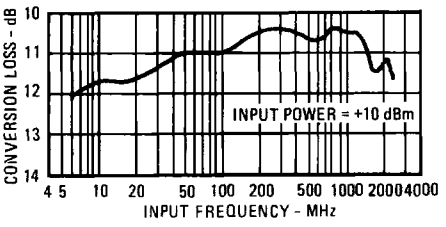
Drive Level: The minimum recommended drive level is +8 dBm. This level has been established on the premise that a lower drive level will degrade the conversion loss and input VSWR over the full temperature and frequency range.

The maximum recommended drive level is +14 dBm. This upper level is recommended to avoid excessive input VSWR and conversion loss.

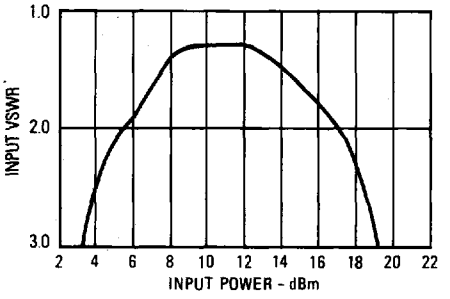
Conversion Loss vs. Input Power



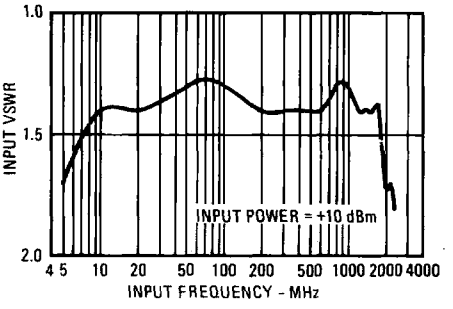
Conversion Loss vs. Frequency



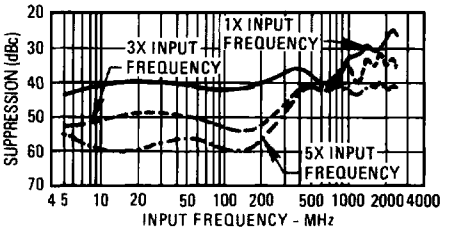
Input VSWR vs. Input Power



Input VSWR vs. Input Frequency



Suppression vs. Input Frequency



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