

# FDS6005

## 0.05 TO 3.0 GHz: INPUT 0.1 to 6.0 GHz: OUTPUT SMT0-8 FREQUENCY DOUBLER

**Typical Values**

Input Frequency .....	<b>FDS6005</b> 0.05 - 3.0 GHz
Output Frequency .....	0.1 - 6.0 GHz
Conversion Loss .....	11.0 dB
Input Drive (nominal) .....	+13.0 dBm
High Fundamental Suppression .....	40.0 dBc
Surface Mount Package	

### SPECIFICATIONS\*

Parameter	Port	Frequency (GHz)	Guaranteed -55 to +85 °C		
			Typ. (dB)	Max. (dB)	
SSB Conversion Loss and SSB Noise Figure	f <sub>IN</sub>	0.05 to 1.5	10.5	12.5	
	f <sub>OUT</sub>	0.1 to 3.0	10.5	12.5	
	f <sub>IN</sub>	0.05 to 3.0	12.0	14.0	
	f <sub>OUT</sub>	0.1 to 6.0	12.0	14.0	
Suppression <sup>^</sup>			<b>Typ. (dB)</b>	<b>Min. (dB)</b>	
	Fundamental	f <sub>IN</sub>	0.05 to 0.5	35	25
		f <sub>IN</sub>	0.5 to 2.0	40	30
		f <sub>IN</sub>	2.0 to 3.0	35	25
	Third Harmonics	f <sub>IN</sub>	0.05 to 3.0	45	30
Fifth Harmonics	f <sub>IN</sub>	0.05 to 3.0	55	40	

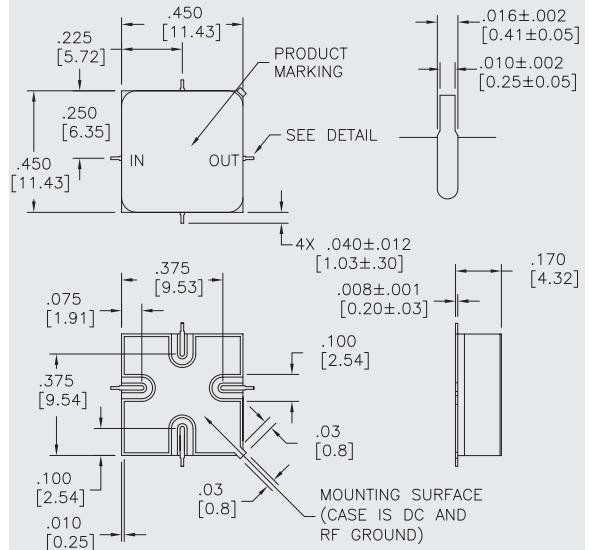
\* Measured in a 50-ohm system with nominal Input drive of +13 dBm.  
<sup>^</sup> Fundamental and harmonic suppression is referenced to the fundamental input.

### ABSOLUTE MAXIMUM RATINGS

Storage Temperature .....	-65 to +125 °C
Peak Input Power .....	+23 dBm @ 25 °C derate to +17 dBm @ 100 °C
Peak Input Current @ 25°C .....	50 mA DC

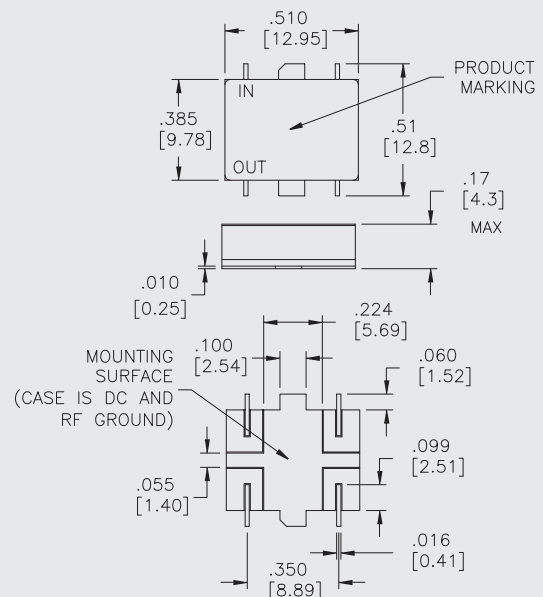
### FDS6005

#### SMT0-8 Surface Mount Package for Frequency Doubler



### FDT56005

#### Surface Mount Package for Frequency Doubler



DIMENSIONS ARE IN INCHES [MILLIMETERS]

**TYPICAL PERFORMANCE**

KEY: +25 °C —  
+85 °C - - -  
-55 °C - · - ·

