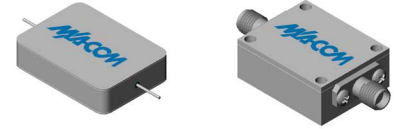




# FD93 / FD93C



## FREQUENCY DOUBLER

- INPUT: 2 TO 9 GHz
- OUTPUT: 4 TO 18 GHz
- INPUT DRIVE LEVEL: +12 dBm (NOMINAL)
- HERMETICALLY-SEALED PACKAGE

### Specifications (Rev. Date: 2/02)\*

Characteristics	Typical	Guaranteed	
		+25°C	-54° to +85°C
Conversion Loss (max.) F <sub>in</sub> = 2 to 4 GHz F <sub>in</sub> = 4 to 9 MHz	10.0 dB 12.0 dB	13.0 dB 14.0 dB	13.5 dB 14.5 dB
Fundamental Isolation (min.) F <sub>in</sub> = 2 to 9 GHz	25 dB	18 dB	16 dB
Third Harmonic Suppression F <sub>in</sub> = 2 to 6 GHz	25 dBc	17 dBc	15 dBc
Input VSWR F <sub>in</sub> = 2 to 9 GHz	1.5:1		

\*Measured in a 50-ohm system at +25°C with nominal input drive level. Typical values are measured at +25°C and are not guaranteed.

### Absolute Maximum Ratings

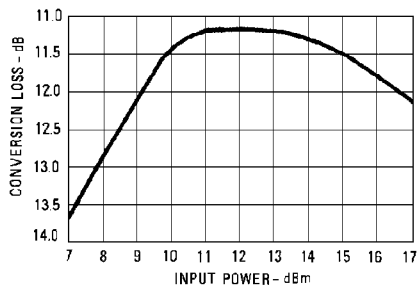
Operating Temperature	-54° to +100°C
Storage Temperature	-65° to +100°C
Peak Input Power	+23 dBm max. @ +25°, +20 dBm max. @ +100°C

### Outline Drawings

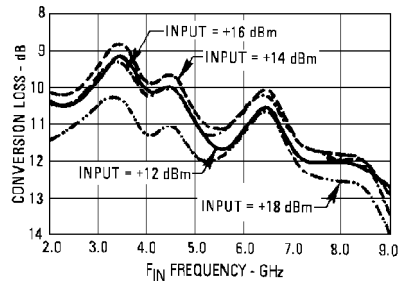
Package	Figure	Model
Minipac	DQ	FD93
SMA Connectorized	DP	FD93C

Typical Performance at 25°C

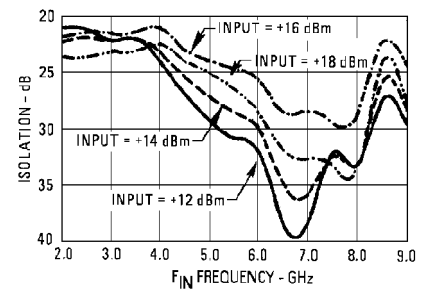
Conversion Loss vs. Input Power



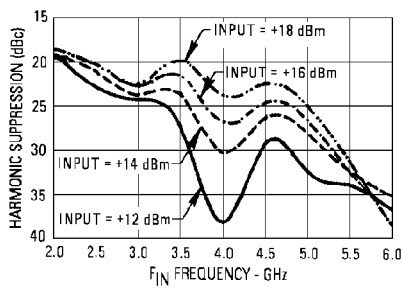
Conversion Loss vs. Input Frequency



Input/Output Isolation



Suppression vs. Input Frequency



VSWR vs. Frequency

