

# FD93H / FD93HC





# **FREQUENCY DOUBLER**

- INPUT: 2 TO 9 GHz •
- OUTPUT: 4 TO 18 GHz •
- INPUT DRIVE LEVEL: +19 dBm (NOMINAL) •
- HERMETICALLY-SEALED PACKAGE •

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

Characteristics	Typical	Guaranteed	
			-54° to +85°C
Conversion Loss (max.) $F_{in} = 2 \text{ to } 4 \text{ GHz}$ $F_{in} = 4 \text{ to } 9 \text{ MHz}$	11.0 dB 12.0 dB	13.0 dB 14.0 dB	13.3 dB 14.3 dB
Fundamental Isolation (min.) $F_{in} = 2 \text{ to } 9 \text{ GHz}$	25 dB	18 dB	17 dB
Third Harmonic Suppression $F_{in} = 2 \text{ to } 6 \text{ GHz}$	25 dBc	16 dBc	15 dBc
Input VSWR $F_{in} = 2 \text{ to } 9 \text{ GHz}$	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
Minpac	DQ	FD93H
SMA Connectorized	DP	FD93HC

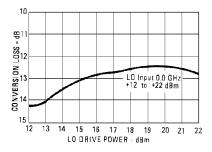




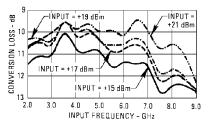
## FD93H / FD93HC

# Typical Performance at 25°C

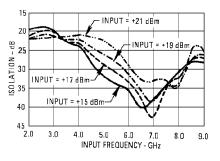
#### Conversion Loss Vs. LO Drive Power



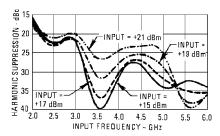
#### Conversion Loss vs. Input Frequency



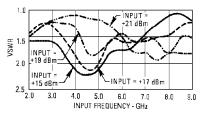
#### Isolation vs. Frequency



Suppression vs. Input Frequency



#### VSWR vs. Frequency



Specifications subject to change without notice. • North America: 1-800-366-2266 Visit www.macom.com for complete contact and product information.

