

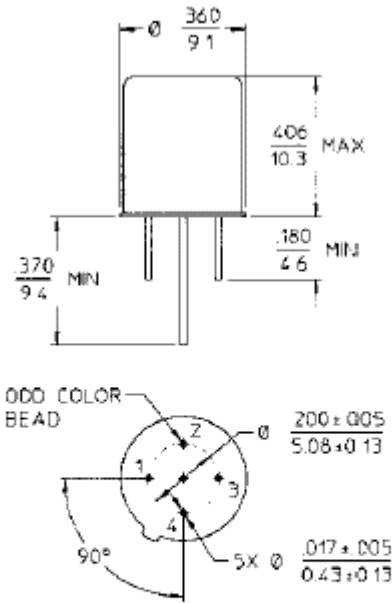
Features

- Convenient Microstrip or Stripline Mounting
- Low Conversion Loss: -6 dB
- Impedance: 50 Ohms Nominal
- Maximum Input Power: 300 mW max. @ 25°C, Derated linearly to 85°C @ 3.2 mW/°C
- IF Port Current: 50 mA Max.
- MIL-STD-883 Screening Available

Description

Transformers convert the LO and RF paths to balanced lines connecting to a low barrier, Schottky diode ring quad. These transformers help provide excellent isolation between ports. Conversion Loss is low. The direct connection of the IF port to the diode quad allows these mixers to be used as phase detectors and bi-phase modulators.

TO-5-2



Lower dimensions are in mm
 Unless otherwise noted: XXX = ±0.10 (XX = ±0.25)
 .XX = ±0.02 (X = ±0.5)
 Weight (Approx) 0.11 Ounces 3 Grams

Pin Configuration

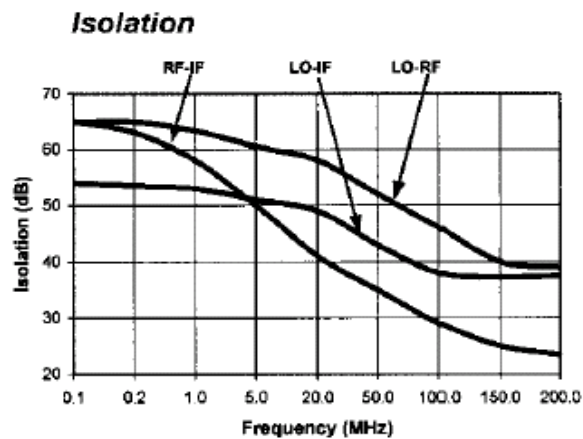
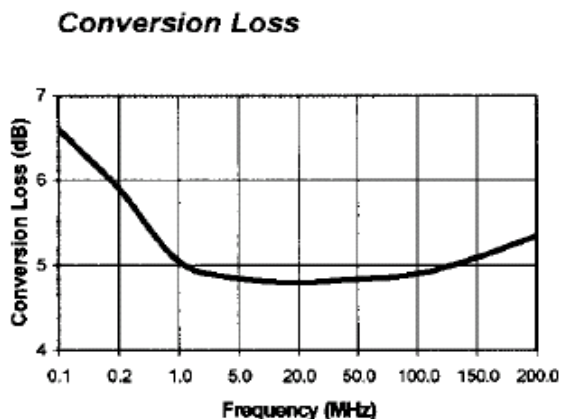
| Pin No. | Function | Pin No. | Function |
|---------|----------|---------|----------|
| 1 | LO | 3 | RF |
| 2 | IF | 4 | GND |

Electrical Specifications¹: T_A = -55°C to +85°C

| Parameter | Test Conditions | Frequency | Units | Min | Typ | Max |
|-----------------------|--|-----------------------|------------|--------|----------|--------|
| Frequency Range | RF, LO Ports IF Port | 0.2 - 200 DC - 200 | MHz MHz | — — | — — | — — |
| Conversion Loss | | — | dB | — | — | 6.0 |
| Isolation | LO to RF | 0.2 - 50 MHz | dB | 35 | — | — |
| | | 50 - 200 MHz | dB | 25 | — | — |
| | LO to IF | 0.2 - 50 MHz | dB | 35 | — | — |
| | | 50 - 200 MHz | dB | 25 | — | — |
| | RF to IF | 0.2 - 50 MHz | dB | 25 | — | — |
| | | 50 - 200 MHz | dB | 20 | — | — |
| DC Polarity | Negative | — | — | — | — | — |
| DC Offset | | | mV | — | ≤1 | — |
| RF Input ² | 1 dB Compression 1 dB Desensitization | | dBm dBm | — — | +1 -3 | — — |
| SSB Noise Figure | Within 1 dB of Conversion Loss Max. | — | — | — | — | — |

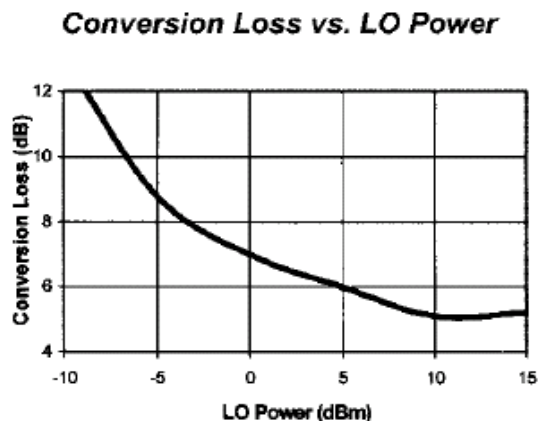
1. All specifications apply when operated at +7 dBm available LO power with 50 ohm source and load impedance.
2. Measured at 100 MHz

Typical Performance Curves



Ordering Information

| Part Number | Package |
|-------------|---------|
| MAC-50 PIN | TO-5-2 |



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