

# M/A-COM Double Balanced Mixer 10 - 3000 MHz

## Features

- Space Qualified version of MD-123
- Designed to meet the Stringent Reliability Standards of Space Hardware
- -7 dB Typical Compression Level
- Excellent Intermodulation Rejection
- 1.5 dB Conversion Loss Flatness

## Description

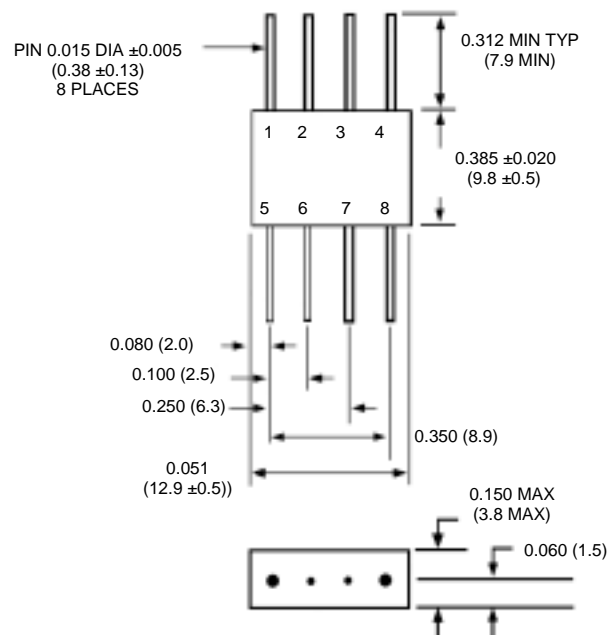
M/A-COM's MD20-0017-S is a High Performance Double Balanced Mixer designed to operate between 10-3000 MHz.

## Absolute Maximum Ratings<sup>1</sup>

| Parameter                      | Absolute Maximum |
|--------------------------------|------------------|
| Max. Input Power<br>10-500 MHz | 600 milliWatt    |
| Operating Temperature          | -40°C to +85°C   |
| Storage Temperature            | -65°C to +125°C  |

1. Operation of this device above any one of these parameters may cause permanent damage.

## FP-2



Dimensions in ( ) are in mm.  
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)  
.xx = ±0.02 (.x = ±0.5)  
WEIGHT (APPROX.): 0.09 OUNCES 2.5 GRAMS

## Electrical Specifications, T<sub>A</sub> = +25°C

| Parameter         | Test Conditions | Frequency     | Units | Min. | Typ. | Max. |
|-------------------|-----------------|---------------|-------|------|------|------|
| Conversion Loss   | -               | 10-3000 MHz   | dB    | -    | -    | 8    |
| Isolation         | LO-RF           | 10-500 MHz    | dB    | 25   | -    | -    |
|                   |                 | 500-1000 MHz  | dB    | 30   | -    | -    |
|                   |                 | 1000-3000 MHz | dB    | 25   | -    | -    |
|                   | LO-IF           | 10-500 MHz    | dB    | 20   | -    | -    |
|                   |                 | 500-1000 MHz  | dB    | 25   | -    | -    |
|                   |                 | 1000-3000 MHz | dB    | 25   | -    | -    |
|                   | RF-IF           | 10-500 MHz    | dB    | 20   | -    | -    |
|                   |                 | 500-1000 MHz  | dB    | 20   | -    | -    |
|                   |                 | 1000-3000 MHz | dB    | 18   | -    | -    |
| 1 dB Compression  | -               | 10-3000 MHz   | dBm   | -    | +6   | -    |
| Noise Figure      | -               | 10-3000 MHz   | dB    | -    | -    | +9   |
| Two-Tone IM Ratio | -               | 100-2000      | dBc   | -    | 50   | -    |

Specifications subject to change without notice.

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Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

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V 2.0

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