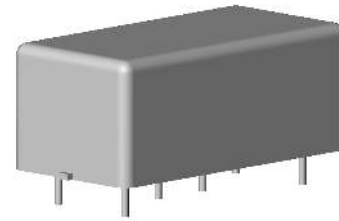


Features

- Frequency:
LO & RF: 0.5 - 500 MHz
IF: DC - 500 MHz
- LO Drive: 17 dBm (nom.)
- High Intercept: 25 dB
- High Isolation: 50 dB



Applications

- Military, Commercial, and test Equipment

Description

The M9BC is a double balanced mixer, designed for use in military, commercial, and test equipment applications. The design utilizes Schottky ring quad diodes and broadband ferrite baluns to attain excellent performance. This mixer can also be used as a phase detector and/or bi-phase modulator since the IF port is DC coupled to the diodes. Environmental screening is available to MIL-STD-883, MIL-STD-202, or MIL-DTL-28837, consult factory.

Ordering Information

Part Number	Package
M9BC	Relay Can

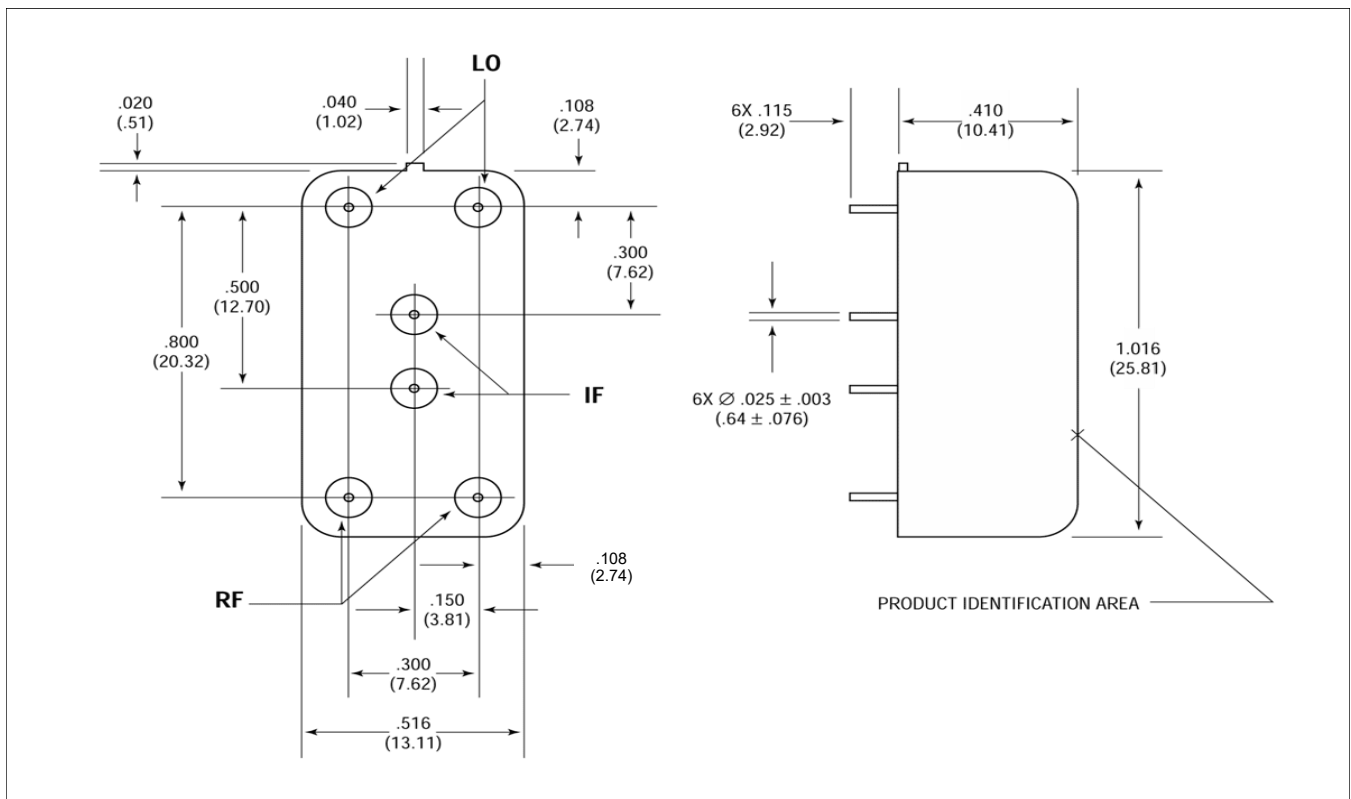
Electrical Specifications: $Z_0 = 50\Omega$ $L_o = +17$ dBm (Downconverter Application only)

Parameter	Test Conditions	Units	Typical	Guaranteed	
			+25°C	0° to +50°C	-54° to +85°C
SSB Conversion Loss & SSB Noise Figure (max.)	fR = 0.0005 - 0.03 GHz, fL = 0.0005 - 0.03 GHz, fl = 0.0004 - 0.03 GHz	dB	6.0	7.0	7.3
	fR = 0.03 - 0.1 GHz, fL = 0.03 - 0.1 GHz, fl = 0.0004 - 0.1GHz		7.0	7.5	7.8
	fR = 0.1 - 0.5 GHz, fL = 0.1 - 0.5 GHz, fl = 0.0004 - 0.5 GHz		8.0	9.0	9.3
Isolation, L to R (min)	fL = 0.0005 - 0.03 GHz	dB	60	55	54
	fL = 0.03 - 0.1 GHz		55	45	44
	fL = 0.1 - 0.5 GHz		40	35	34
Isolation, L to I (min)	fL = 0.0005 - 0.03 GHz	dB	55	45	44
	fL = 0.03 - 0.1 GHz		45	35	34
	fL = 0.1 - 0.5 GHz		30	25	24
Isolation, R to I (min)	fL = 0.0005 - 0.5 GHz	dB	20	—	—
1 dB Conversion Compression	fL @ +17 dBm	dBm	8	—	—
Input IP3	—	dBm	23	—	—

Absolute Maximum Ratings @ +25°C

Parameter	Absolute Maximum
Peak Input Power	23 dBm
Peak Input Current	100 mA DC
Operating Temperature	-54°C to +100°C
Storage Temperature	-65°C to +100°C

Outline Drawing: Relay Can



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