DMG-B Series DOUBLE BALANCED MIXERS

5 to 2000 MHz / +4 to +17 dBm LO / Hi-Rel Hermetic Package / SMD

PRINCIPAL SPECIFICATIONS

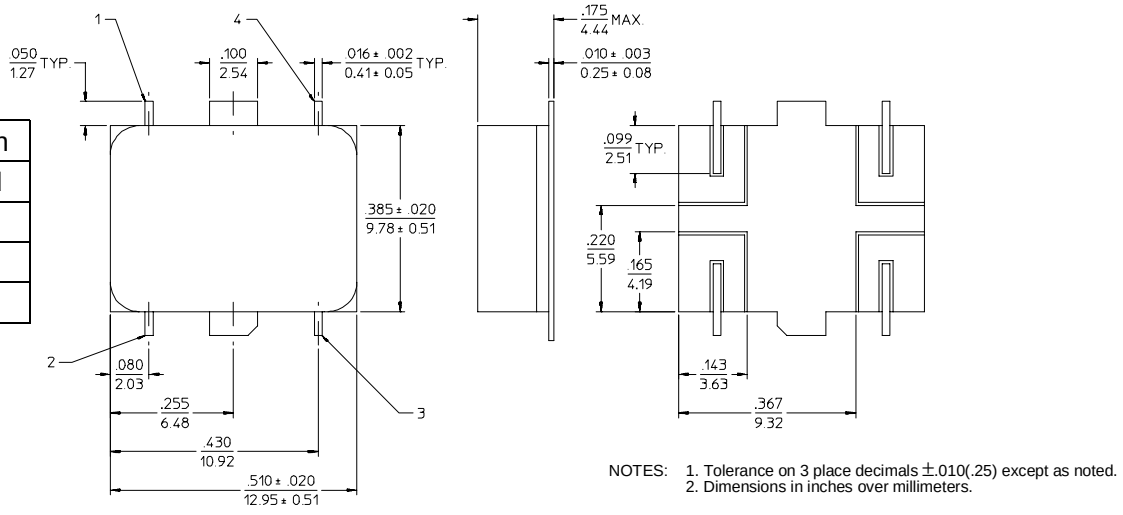
Model Number	RF/LO Frequency, MHz	IF Freq., MHz	LO Drive, dBm, Nom.	Conversion Loss, dB, Max.	Conversion Loss, dB, Typ.	Port Isolation, Typ. L-R dB	Port Isolation, Typ. L-X dB	Port Isolation, Typ. R-X dB	-1 dB Compr. Pt.Typ.	Input Intercept Pt. Typ.	Pol. Sense
†DMG-2B-350	5 - 700	DC - 500	+7	8	6	35	20	20	0 dBm	+12 dBm	Neg
†DMG-2B-2000	500 - 3000	DC - 1000	+7	10	7	35	25	20	0 dBm	+12 dBm	Pos
DMG-4B-1700	500 - 2000	DC - 1000	+13	8	6	25	20	15	+8 dBm	+19 dBm	Neg

†Unit designed for IR or Vapor Phase Attachment

All specifications are as measured in a 50Ω system, at nominal LO power, in a down converter application.

Package Outline

Tab	Function
1	Ground
2	L (LO)
3	R (RF)
4	X (IF)



NOTES: 1. Tolerance on 3 place decimals ±.010(.25) except as noted.
2. Dimensions in inches over millimeters.

General Notes:

1. The DMG-B series surface mount Double Balanced Mixers covers the frequency range of 5 to 2000 MHz using miniature diode rings specially tailored for high performance.

2. The package has been carefully designed for 50Ω systems to optimize RF performance while achieving the small size and profile required of surface mount devices. The Kovar input leads extend beyond the package wall to facilitate inspection. In all units except the DMG-4B-1700, the internal components and connections are compatible with IR and vapor phase mounting of the device on a PCB. Hand soldering is required on the DMG-4B-1700.

3. Merrimac mixers comply with MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

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GENERAL SPECIFICATIONS

Impedance:	50 Ω nom.
Noise Figure:	Within ±1 dB of Conversion Loss
Maximum Input Power:	300 mW @ 25°C (derate linearly to 0 mW @ 125°C)
Usable LO Drive Range:	±3 dB of nominal
DC Offset Voltage:	3 mV typ.
Weight, nom:	0.07 oz (2 g)
Operating Temperature:	– 55° to +85°C

For further information contact ***MERRIMAC / 41 Fairfield Pl., West Caldwell, NJ, 07006 / 973-575-1300 / FAX 973-575-0531***