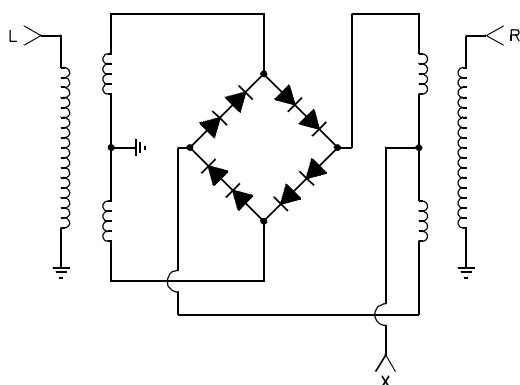


DMF-8A Series

DOUBLE BALANCED MIXERS

500 kHz to 2 GHz / +17 to +23 dBm LO / +25 dBm Third Order Intercept / Flat pack

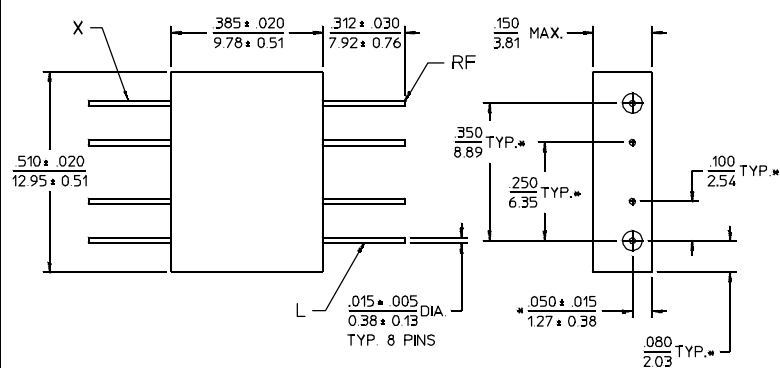


PRINCIPAL SPECIFICATIONS

Model Number	RF/LO Frequency, MHz	IF Frequency, MHz	Operating Range, MHz	Conversion Loss, dB		Port Isolation, Min. dB			Polarity Sense
				Max.	Typ.	L-R	L-X	R-X	
DMF-8A-250	0.5 - 500	DC - 500	0.5 - 1	8.0	7.0	40	30	23	Pos.
			1 - 300	7.0	6.0	40	30	23	
			300 - 500	8.0	7.0	35	20	20	
DMF-8A-500	10 - 1000	DC - 1000	10 - 50	7.5	6.5	35	30	25	Pos.
			50 - 500	7.5	6.5	30	25	20	
			500 - 1000	8.5	7.5	25	15	15	
DMF-8A-700	10 - 1500	DC - 1000	10 - 600	8.0	7.0	30	20	15	Neg.
			600 - 1000	8.0	7.0	20	12	15	
			1000 - 1500	9.5	8.5	20	12	8	
DMF-8A-1700	500 - 2000	DC - 1000	500 - 2000	8.0	6.0	25	25	15	Neg.

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

Package Outline



- NOTES:
1. Tolerance on 3 place decimals ±.010(.25) except as noted.
 2. Dimensions in inches over millimeters.
 3. Dimensions marked with * apply only at body.
 4. All unmarked pins are case ground.

GENERAL SPECIFICATIONS

LO Drive:	+20 dBm nom.
Impedance:	50 Ω nom.
Noise Figure:	Within ±1 dB of Conversion Loss
1 dB Comp. Point:	+13 dBm input typ.
Input Intercept Point:	+25 dBm typ.
Maximum Input Power:	600 mW @ 25°C (derate linearly to 0 mW @ 125°C)
DC Offset Voltage:	5 mV typ.
Weight:	0.1 oz (2.8 g)
Operating Temperature:	-55° to +85°C

General Notes:

1. The DMF-8A series of Double Balanced Mixers covers the frequency range of 0.5 to 2000 MHz using an eight diode ring modulator to produce a high level mixer with high third order intercept points.
2. Merrimac offers a broad selection of Double Balanced Mixers ideal for a variety of signal processing functions with frequencies ranging from 20 kHz to 20 GHz and for applications from the routine to the very special.
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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