

Surface Mount Frequency Mixer

MBA-25MH+ MBA-25MH

Level 13 (LO Power +13 dBm) 2000 to 3000 MHz



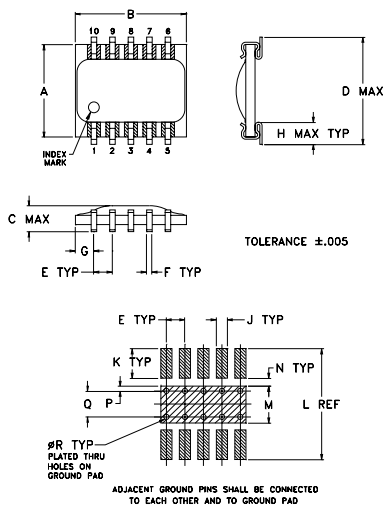
Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

Pin Connections

LO	10
RF	5
IF	3
GROUND	1,2,4,6,7,8,9

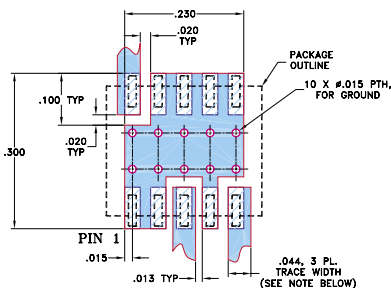
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.250	.300	.070	.290	.050	.015	.050	.060	
6.35	7.62	1.78	7.37	1.27	0.38	1.27	1.52	
J	K	L	M	N	P	Q	R	wt
.030	.080	.300	.100	.020	.015	.070	.014	grams
0.76	2.03	7.62	2.54	0.51	0.38	1.78	0.36	0.3

Demo Board MCL P/N: TB-99 Suggested PCB Layout (PL-066)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - ▨ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent temperature stability
- excellent performance repeatability
- leads with strain relief
- very low cost
- ultra low height, 0.07"
- aqueous washable
- protected by US Patent 5,534,830

Applications

- wireless local loop
- satellite communication
- PCMCIA

CASE STYLE: SM2
PRICE: \$7.95 ea. QTY (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications

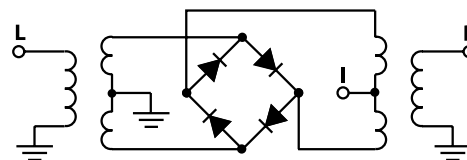
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		Typ.	Min.	Typ.	Min.	
2000-3000	DC-500	6.5	0.1	8.6	36	18

1 dB COMP.: +8 dBm typ.

Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
2000.00	2030.00	7.77	25.90	11.00	4.32
2050.00	2080.00	7.55	26.10	11.40	3.79
2100.00	2130.00	7.34	26.70	12.30	3.50
2150.00	2180.00	7.08	27.60	13.10	3.21
2200.00	2230.00	6.94	28.30	14.10	2.96
2250.00	2280.00	6.93	29.60	15.10	2.88
2300.00	2330.00	7.02	31.20	16.10	2.72
2350.00	2380.00	6.80	32.30	17.30	2.55
2400.00	2430.00	6.90	34.40	18.60	2.52
2470.00	2500.00	6.76	37.50	20.60	2.49
2500.00	2530.00	6.70	38.40	21.40	2.43
2550.00	2580.00	6.57	36.30	23.10	2.32
2600.00	2630.00	6.25	31.70	24.90	2.20
2650.00	2680.00	6.32	29.20	25.90	1.97
2700.00	2730.00	6.48	27.70	27.20	1.70
2750.00	2780.00	6.53	27.70	28.80	1.51
2800.00	2830.00	6.72	28.30	30.70	1.35
2850.00	2880.00	6.74	28.70	35.10	1.22
2900.00	2930.00	6.68	29.40	40.90	1.10
3000.00	3030.00	6.64	32.10	30.50	1.16

Electrical Schematic



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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS

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MBA-25MH
EE-7756/24
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Performance Charts

