

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
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

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

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

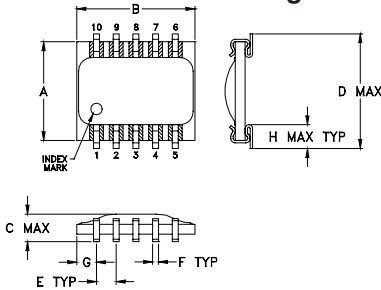
FREQUENCY (MHz)	CONVERSION LOSS (dB)	LO-RF ISOLATION (dB)		LO-IF ISOLATION (dB)		IP3 at center band (dBm)
		Typ.	Min.	Typ.	Min.	
2000-3000	DC-500	6.5	0.1	8.6	36	18

1 dB COMP.: +8 dBm typ.

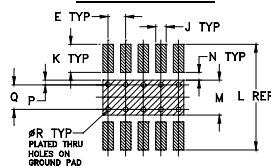
Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)	Isolation L-R (dB)	Isolation L-I (dB)	VSWR RF Port (:1)	VSWR LO Port (:1)
2000.00	7.77	25.90	11.00	4.32	2.43
2050.00	7.55	26.10	11.40	3.79	2.35
2100.00	7.34	26.70	12.30	3.50	2.25
2150.00	7.08	27.60	13.10	3.21	2.12
2200.00	6.94	28.30	14.10	2.96	2.03
2250.00	6.93	29.60	15.10	2.88	1.97
2300.00	7.02	31.20	16.10	2.72	1.88
2350.00	6.80	32.30	17.30	2.55	1.84
2400.00	6.90	34.40	18.60	2.52	1.69
2470.00	6.76	37.50	20.60	2.49	1.56
2500.00	6.70	38.40	21.40	2.43	1.51
2550.00	6.57	36.30	23.10	2.32	1.48
2600.00	6.25	31.70	24.90	2.20	1.43
2650.00	6.32	29.20	25.90	1.97	1.46
2700.00	6.48	27.70	27.20	1.70	1.46
2750.00	6.53	27.70	28.80	1.51	1.44
2800.00	6.72	28.30	30.70	1.35	1.48
2850.00	6.74	28.70	35.10	1.22	1.47
2900.00	6.68	29.40	40.90	1.10	1.48
3000.00	6.64	32.10	30.50	1.16	1.54

Outline Drawing



PCB Land Pattern

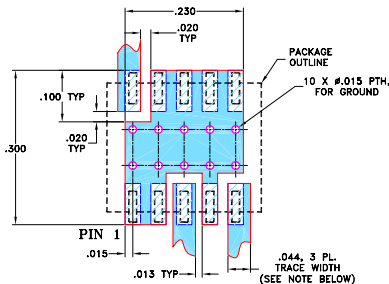


Suggested Layout,
Tolerance to be within ±.002
ADJACENT GROUND PINS SHALL BE CONNECTED TO EACH OTHER AND TO GROUND PAD

Outline Dimensions (inch/mm)

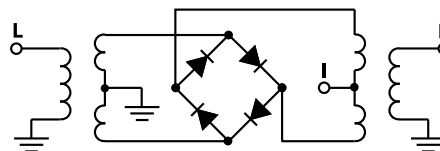
A	B	C	D	E	F	G	H	wt
.250	.300	.095	.290	.050	.015	.050	.060	
6.35	7.62	2.41	7.37	1.27	0.38	1.27	1.52	
J	K	L	M	N	P	Q	R	grams
.030	.080	.300	.100	.020	.015	.070	.014	0.3
0.76	2.03	7.62	2.54	0.51	0.38	1.78	0.36	

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

Electrical Schematic



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