

Surface Mount

# Frequency Mixer

Level 17 (LO Power +17 dBm) 80 to 2500 MHz



## SYM-25DHW

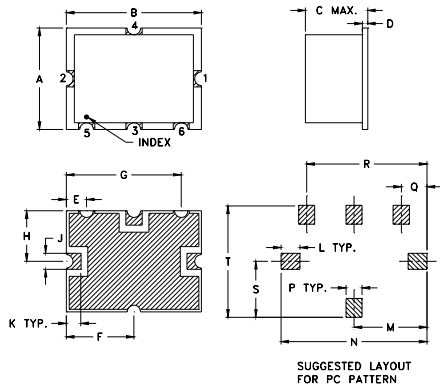
### Maximum Ratings

Operating Temperature	-20°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA

### Pin Configuration

LO	2
RF	1
IF	3
GROUND	4,5,6

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.375	.500	.23	.020	.075	.250	.425	.187	
9.53	12.70	5.84	0.51	1.91	6.35	10.80	4.75	
J	K	L	M	N	P	Q	R	
.050	.050	.070	.270	.540	.060	.095	.445	
1.27	1.27	1.78	6.86	13.72	1.52	2.41	11.30	
S	T	wt.						
.208	.415	grams						
5.28	10.54	.8						

### Features

- low conversion loss, 6.4 dB typ.
- high L-R isolation, 37 dB typ.
- high L-I isolation, 36 dB typ.

### Applications

- cellular
- PCN
- ISM



CASE STYLE: TTT167  
PRICE: \$9.95 ea.  
QTY.: (10-49)

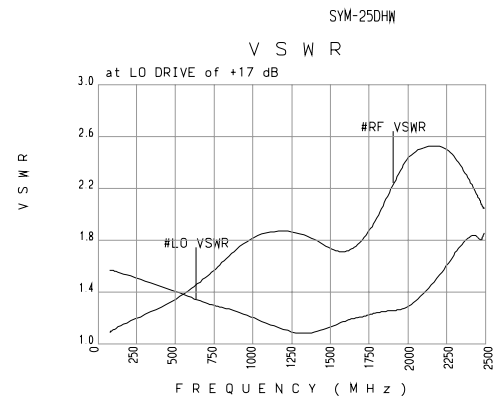
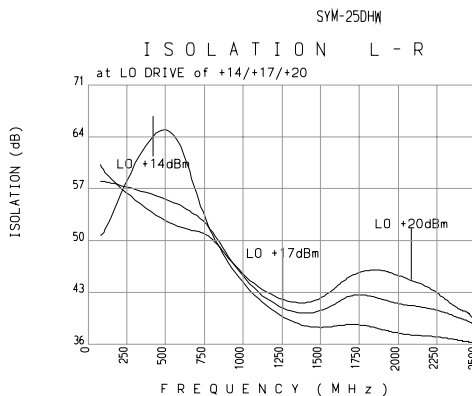
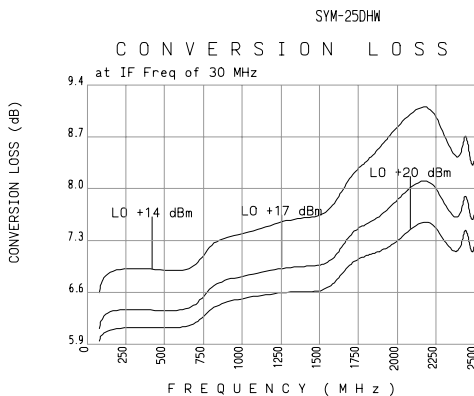
### Electrical Specifications

FREQUENCY MHz	CONVERSION LOSS dB	LO-RF ISOLATION, dB			LO-IF ISOLATION, dB			IP3@ center band Typ. (dBm)										
		L	M	U	L	M	U											
80-2500	DC-1000	6.4	0.1	8.0	8.6	46	29	37	25	35	20	38	26	33	24	36	20	30

\* Conversion loss increases up to 6 dB higher as IF frequency decreases from 5 MHz to DC.  
1 dB COMPR. +14 dBm typ.  
L = low range [ $f_L$  to  $f_U$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]  
m = mid band [ $2f_L$  to  $f_U/2$ ]

### Typical Performance Data

RF MHz	LO MHz	Conversion Loss (dB) LO +17dBm	Isolation L-R (dB) LO +17dBm	Isolation L-I (dB) LO +17dBm	VSWR LO port (:1) LO +17dBm	VSWR RF port (:1) LO +17dBm
80.00	110.00	6.11	58.01	38.77	1.57	1.09
100.00	130.00	6.41	58.12	38.42	1.57	1.12
500.00	530.00	6.34	55.88	38.53	1.41	1.33
700.00	730.00	6.36	53.55	35.89	1.30	1.53
800.00	830.00	6.74	51.64	35.25	1.29	1.64
1000.00	1030.00	6.81	44.19	33.97	1.20	1.88
1300.00	1330.00	6.96	39.90	32.47	1.04	1.88
1500.00	1530.00	6.94	40.35	32.97	1.15	1.71
1600.00	1630.00	7.06	41.70	33.92	1.19	1.71
1700.00	1730.00	7.43	42.84	35.74	1.21	1.82
1800.00	1830.00	7.52	42.70	38.06	1.26	2.04
1900.00	1930.00	7.64	42.06	41.62	1.26	2.30
2000.00	2030.00	7.86	41.44	45.61	1.29	2.52
2200.00	2230.00	8.25	40.96	39.31	1.57	2.55
2300.00	2330.00	7.77	40.34	36.04	1.77	2.39
2400.00	2430.00	7.50	39.50	33.10	1.87	2.17
2430.00	2460.00	7.96	39.32	32.64	1.77	2.09
2450.00	2480.00	7.87	39.13	32.33	1.86	2.05
2480.00	2510.00	7.48	38.81	31.75	1.94	2.00
2500.00	2530.00	7.72	38.50	31.50	1.89	1.95



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INTERNET <http://www.minicircuits.com>

ISO 9001 CERTIFIED

REV. A  
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