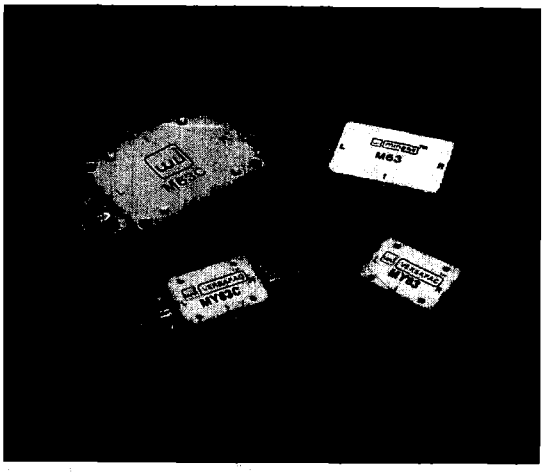
M63 / M63C
MY63 / MY63C

DOUBLE-BALANCED MIXER

- LO 2.5 TO 7.0 GHz
- RF 2.5 TO 5.5 GHz
- IF DC TO 1.5 GHz
- LO DRIVE +9 dBm (NOMINAL)
- LOW NOISE FIGURE: 5.8 dB (TYP.)
- MIL–M–28837 EQUIVALENT LEVEL SCREENING AVAILABLE



Guaranteed Specifications[1,2]

Characteristics	Typ.	+25°C	-54°C to +85°C	Test Conditions
SSB Conversion Loss and SSB Noise Figure (Max.)	5.0 dB	6.0 dB	6.5 dB	f_R 3.0 to 5.0 GHz f_L 3.0 to 5.5 GHz f_I 0.03 to 0.5 GHz
	5.8 dB	7.0 dB	7.5 dB	f_R 2.5 to 5.5 GHz f_L 2.5 to 7.0 GHz fI 0.03 to 1.5 GHz
ISOLATION (Min.)				
f_L to R	40 dB	30 dB	28 dB	f_L 2.5 to 7.0 GHz
f_L to I	25 dB	17 dB	15 dB	f_L 2.5 to 3.5 GHz
	30 dB	20 dB	18 dB	f_L 3.5 to 7.0 GHz
Conversion Compression	1.0 dB			f_R level +2 dBm f_L level +9 dBm
Third-Order Input Intercept Point	+11 dBm			f_{R1} 4.00 GHz at -10 dBm f_{R2} 4.01 GHz at -10 dBm f_L 2.8 GHz at +9 dBm
VSWR				
R-Port	1.5:1			f_R 2.5 to 5.5 GHz
L-Port	1.5:1			f_L 2.5 to 7.0 GHz
I-Port	2.0:1			f_L .03 to 1.5 GHz

Notes:
1. Measured in a 50-ohm system with nominal LO drive and downconverter application only, unless otherwise specified. The I -Port frequency range extends to DC for phase detection, pulse modulation, or attenuator applications, I-Port VSWR degrades from a 50-ohm system at low IF frequencies.
2. Typical values are measured at 25°C and are not guaranteed. Typical performance applies to the MINPAC™ model and does not necessarily reflect the performance of the VERSAPAC® model.

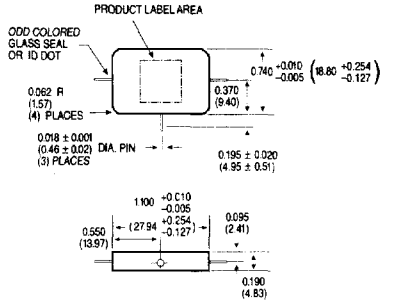
Absolute Maximum Ratings

Operating Temperature ..... -54°C to +100°C
Storage Temperature ..... -65°C to +100°C
Peak Input Power ..... +23 dBm max. at +25°C
Peak Input Current at 25°C ..... 100 mA DC

Weight M63: 14 grams (0.5 oz.) max. M63C: 45 grams (1.6 oz.) max.
MY63: 7.9 grams (0.28 oz.) max. MY63C: 20.0 grams (0.70 oz.) max.

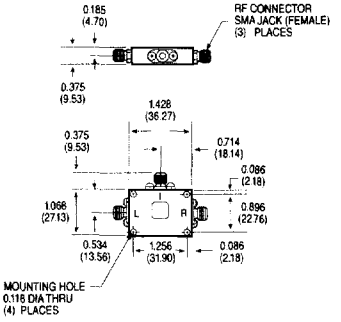
Outline Drawings

M63
(MINPAC)



DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.015 (.38) UNLESS OTHERWISE SPECIFIED

M63C
(CONNECTORIZED)



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±.015 (.38) UNLESS OTHERWISE SPECIFIED

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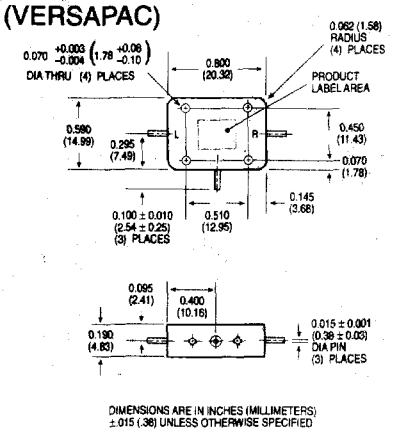
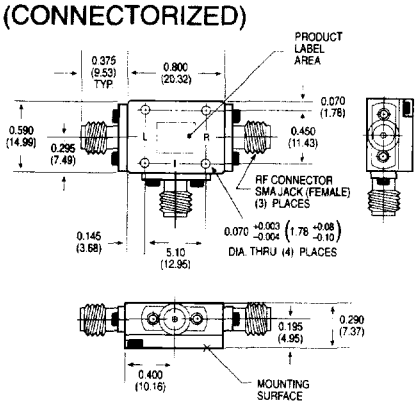
MY63 (VERSAPAC)

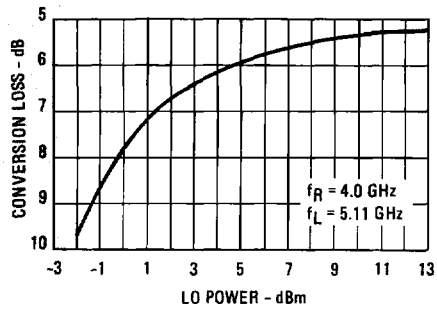


DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.015 (.38) UNLESS OTHERWISE SPECIFIED

MY63C (CONNECTORIZED)

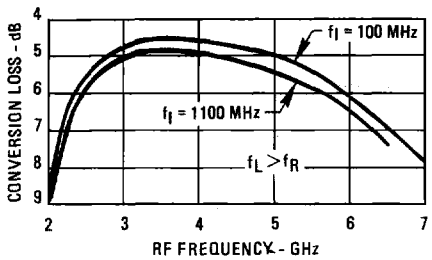


DIMENSIONS ARE IN INCHES (MILLIMETERS)
±.015 (.38) UNLESS OTHERWISE SPECIFIED

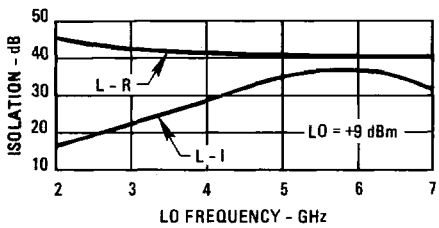


Drive Level: The maximum recommended drive level is +13 dBm.

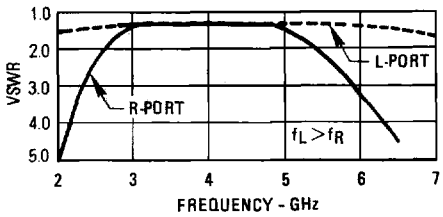
Conversion Loss

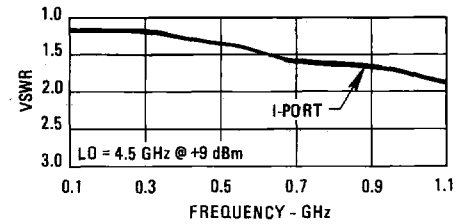


Isolation

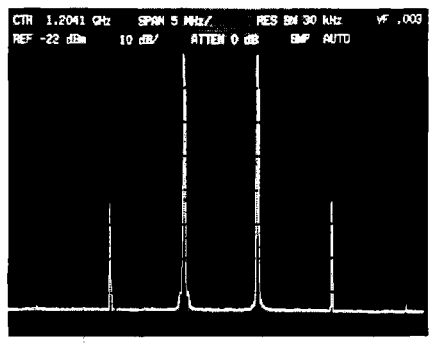


VSWR





Typical Two-Tone Intermodulation Performance



Typical Two-Tone Intermodulation Performance: f_I = 1200 MHz, f_R = 3.95 GHz ±10 MHz, f_R @ -10 dBm $f_R > f_L$, f_L = 2.75 GHz @ +9 dBm. Vertical scale = 10 dB/cm.

*Typical performance applies to the MINPAC™ model and does not necessarily reflect the performance of the VERSAPAC® model.

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