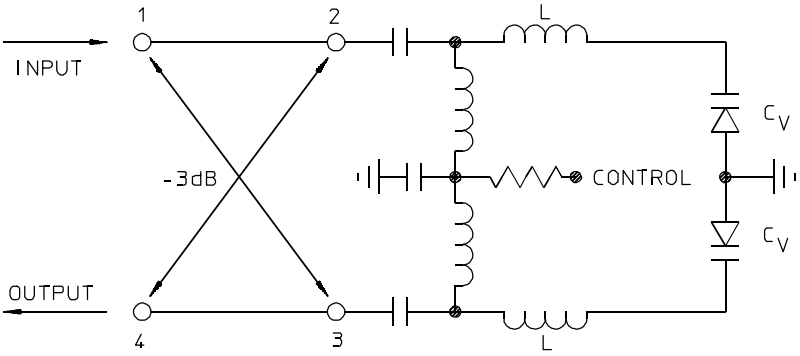
PMP-3R Series ANALOG PHASE MODULATOR

10 to 500 MHz / Up to 10% Modulation Rate / Low Insertion Loss / High Sensitivity / Meri-Pac TM



PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, f_o, MHz	RF Bandwidth
PMP-3R-***B	10 - 500	10% of f_o

For complete Model Number replace ** with desired Center Frequency, f_o in MHz.

General Notes:

1. The PMP-3R series of high frequency, voltage controlled phase modulators covers 10 to 500 MHz. Phase modulation is achieved by the application of a DC coupled signal between 0 and 15 volts and can have a rate up to 10% of the RF center frequency when driven from a low impedance source.
2. The modulating signal varies the capacitance of two varactor diodes which form part of a tuned LC circuit connected across the output ports of a 90° Quadrature Hybrid. The resulting reactance changes cause a shift in the insertion phase of an RF signal passed through the hybrid. A single unit provides more than 180° of phase shift, peak-to-peak.
3. The PMP-3R series of voltage variable phase modulators are designed for analog modulation of an RF carrier. For digital modulation, the JPP and BPP series of quadrature and bi-phase modulators are suggested.
4. Merrimac Phase Modulators are designed for high reliability and can be supplied screened to meet specific military and space applications.

GENERAL SPECIFICATIONS

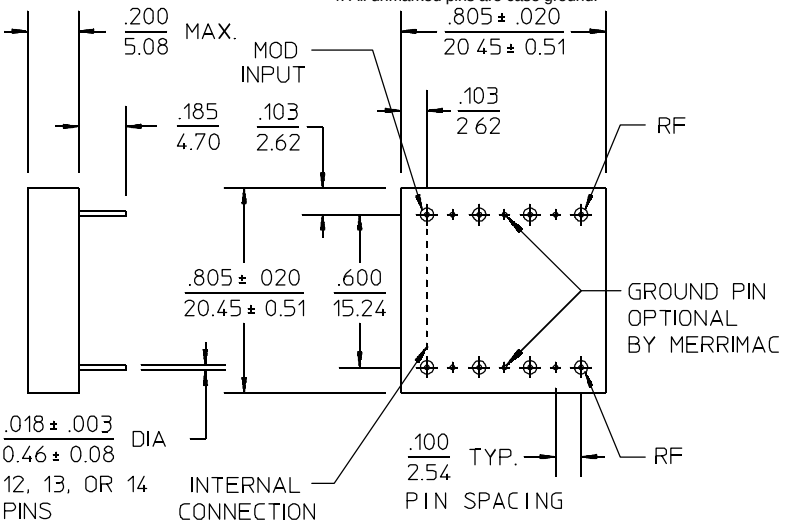
RF Characteristics	
Impedance:	50 Ω
Phase Shift Range*:	0 to –180° min.@fo
Insertion Loss:	2.0 dB max.
Loss Variation vs. V_C:	< 0.5 dB typ.
VSWR:	1.6:1 max.
Input Power:	0 dBm max.**
Modulation Characteristics	
Impedance:	50 Ω
Control Voltage, V_C:	0 to +15 V p-p max.
Sensitivity:	0.2 Rad/Volt Avg.
Modulation Rate:	10% of f_o max.
Weight, nominal:	0.32 oz. (9 g)
Operating Temp:	– 55° to +85°C

*In addition to insertion phase

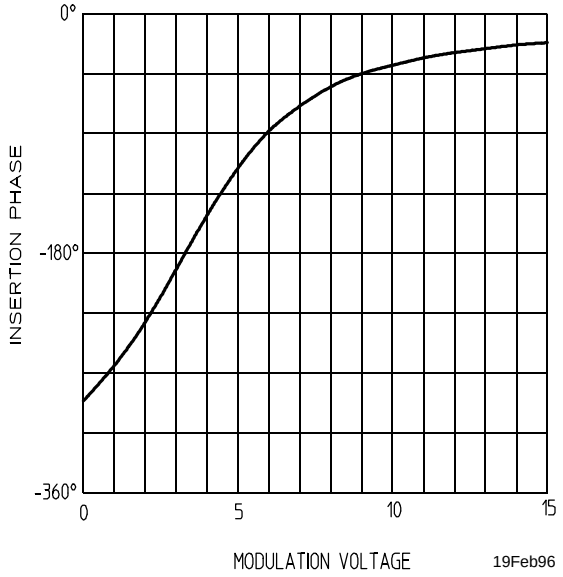
**Unit may be operated at +10 dBm in reduced control range of 1.5 - 15 V (+30 V no damage)

Meri-Pac™ R-Package

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



Typical Transfer Characteristic



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