



Biphase Modulators

10-750 MHz

PM-101/102/103

- Variety of Drivers: PM-101; Current, PM-102; ECL, PM-103; TTL
- Phase Deviation — 1° Typical
- TO-8 Case

TO-8-2

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range	10-750 MHz	
Insertion Loss	10-500 MHz	3.0 dB Max
	10-750 MHz	3.5 dB Max
VSWR	50-500 MHz	1.3:1 Max
	10-750 MHz	1.6:1 Max
Amplitude Balance	0.2 dB Max	
Phase Deviation	10-500 MHz	2° Max
	10-750 MHz	3° Max

Operating Characteristics

Impedance 50 Ohms Nominal

RF Input Level

Operating -3 dBm Max
Non-Destruct +17 dBm Max

Carrier Suppression 35 dB Typ

(100 MHz RF, 1 MHz Modulation)

Control Input

PM-101
Logic 1 +10 mA Drive Current
Logic 0 -10 mA Drive Current

PM-102 (ECL Series 10,000)

Logic 1 ECL High
Logic 0 ECL Low

PM-103 (LS TTL)

Logic 1 TTL High
Logic 0 TTL Low

Bias Power

PM-102 -4.7 to -6.2 VDC @ 50 mA Max (260 mW Typ)
PM-103 +5.0 VDC ±5% @ 30 mA Max (125 mW Typ)

Environmental

See Appendix for MIL-STD-883 screening option.

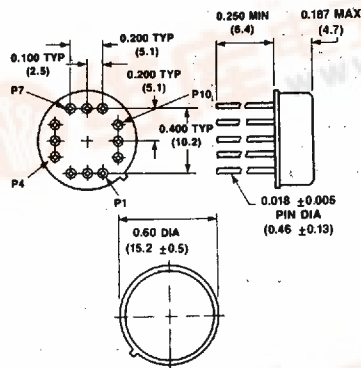
Pin Configuration

PM-101 RF IN; P2, RF Out; P5, D1; P11, D2; P8
PM-102 RF IN; P2, RF Out; P5, D1; P11, D2; P8, DC; P7
PM-103 RF IN; P2, RF Out; P5, D1, P11, DC; P8
All other pins are ground.

*All specifications apply with 50 ohm source and load impedance and inputs to -3 dBm.

Ordering Information

Model No.	Package
PM-101 PIN	TO-8-2
PM-102 PIN	TO-8-2
PM-103 PIN	TO-8-2



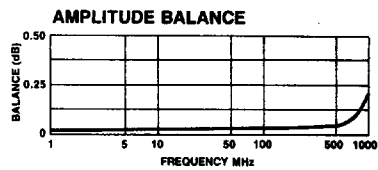
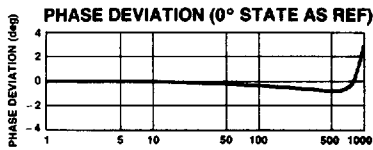
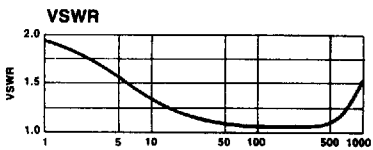
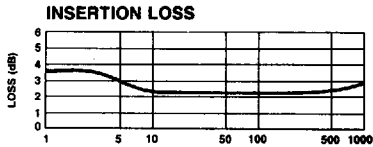
Dimensions in () are in mm.

Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
.xx = ± 0.02 (.x = ± 0.5)

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Typical Performance



PHASE STATE	LOGIC STATE	
	D1	D2
0°	1	0
+180°	0	1