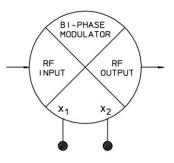
# M109-A – BIPHASE MODULATORS

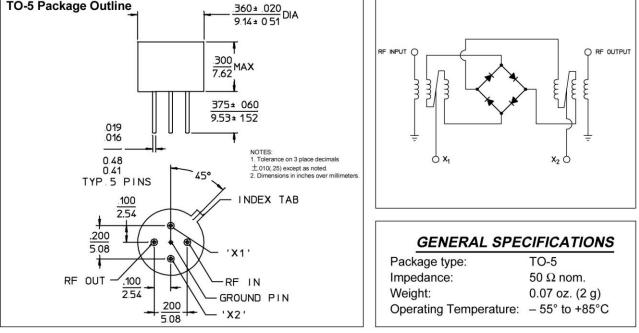
## **TECHNICAL FEATURE**

### **FEATURES**

- 10 to 1000 MHz
- 1° Phase Deviation (typ)
- 0.1 dB Amplitude Balance (typ)



<b>Model</b> Number M-109A	Frequency Range, MHz 10 - 1000	Insertion Loss, dB,		VSWR,	Phase Deviation,	Carrier Suppression,	Data Signal Level, mA,		Amplitude Balance,
		Тур.	Max.	Max.	Max.	dB, Typ.	Logic 0	Logic 1	dB, Max.
		2.5*	4.0*	2:1*	±3° *	35**	-15	+15	-3
		*Applies 10 - 500 MHz only.			**With 100 MHz RF and 1 MHz mo		dulation		



### General Notes:

1. The M-109A Biphase modulator covers the frequency range of 10 to 1000 MHz using broadband ferrite core transformers and specially selected diodes.

2. The M-109A is usable up to 1000 MHz while certain custom units are available for frequency ranges up to 4 GHz. The TO-5 package used in the M-109A is ideal where space is critical.

3. Merrimac offers a broad selection of Biphase Modulators for a variety of signal processing functions with frequencies and bandwidths available for most applications from routine to very special.

4. Merrimac Biphase Modulators comply with MIL-M-28837 and may be supplied screened for compliance with additional specifications for military and space applications requiring the highest reliability.

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