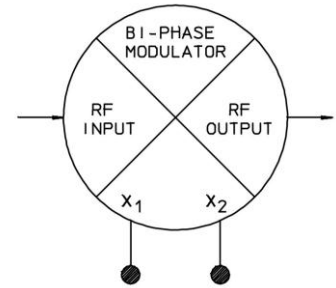


M109-A – BIPHASE MODULATORS

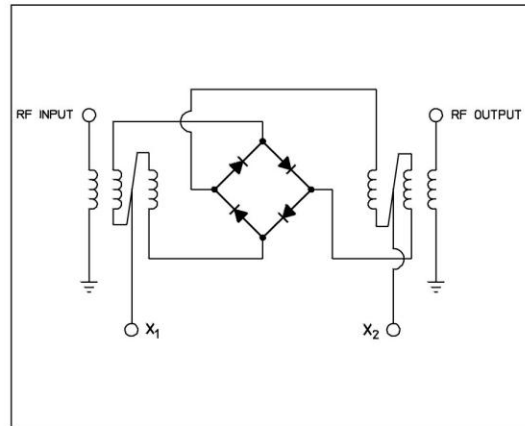
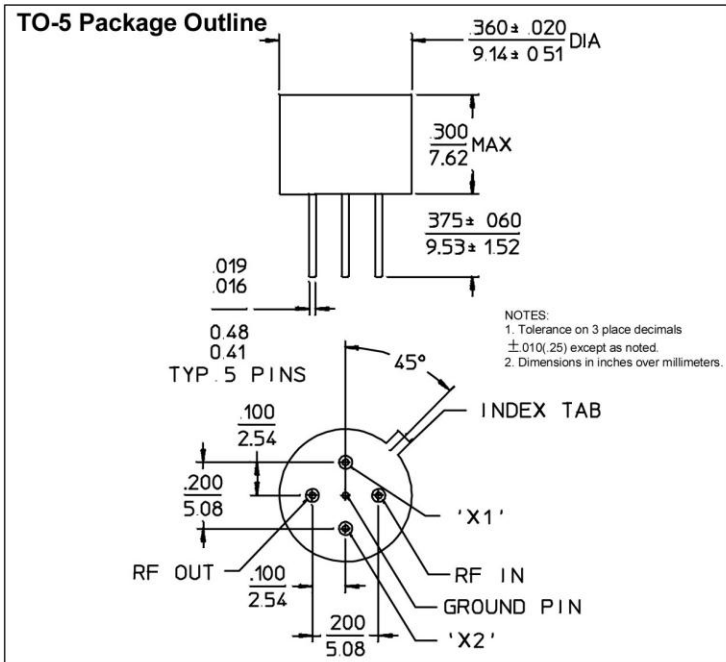
TECHNICAL FEATURE

FEATURES

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



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



GENERAL SPECIFICATIONS	
Package type:	TO-5
Impedance:	50 Ω nom.
Weight:	0.07 oz. (2 g)
Operating Temperature:	-55° to +85°C

General Notes:

1. The M-109A Biphaser 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 Biphaser Modulators for a variety of signal processing functions with frequencies and bandwidths available for most applications from routine to very special.
4. Merrimac Biphaser 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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