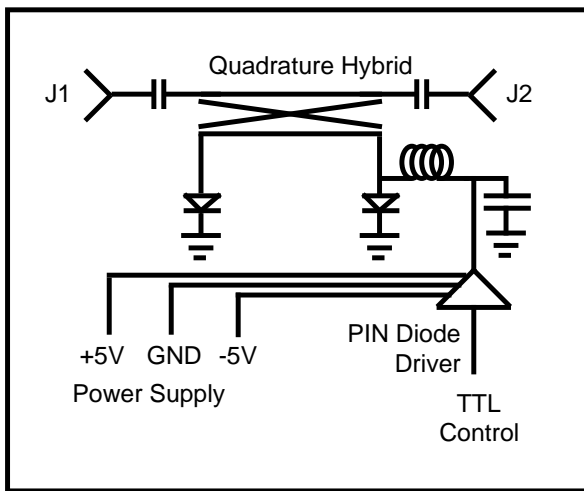


DESCRIPTION

This high-speed, high repetition rate, wide-band, 180° PIN diode phase shifter/modulator utilizes MIC hybrid technology to yield a small, high-performance, and ruggedized unit featuring field-replaceable connectors. Diodes are selected to minimize the insertion loss variation as a function of phase state.

SCHEMATIC



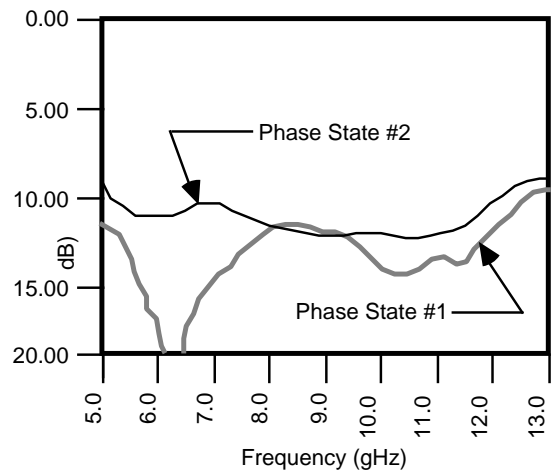
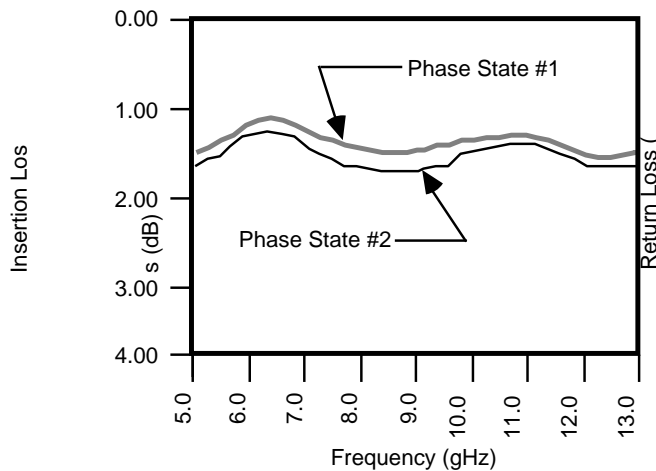
180° Phase Shifter CMCF0617

10 mHz Modulation Rate, ± 0.25 dB Insertion Loss Variation

ELECTRICAL SPECIFICATIONS

CHARACTERISTIC	MAX.	TYP.
Frequency (GHz)	6.5-12.4	5.5-13.0
Insertion Loss (dB)	2.3	1.8
Insertion Loss Variation (dB)	± 0.25	± 0.10
VSWR	2.0:1	1.8:1
Phase Shift ($180^\circ \pm __^\circ$)	$\pm 20^\circ$	$\pm 15^\circ$
Switching Speed (1)	40ns	25ns
Repetition Rate (2)	10 mHz	12 mHz
Power Handling (CW or peak)	+27 dBm	+30 dBm
Positive Supply	5V $\pm 2\%$ 50 mA max	
Negative Supply	-5V $\pm 2\%$ -20 mA max	
Control Impedance	TTL (1 unit loads max)	

TYPICAL PERFORMANCE



- (1) Turn-On Time is the time interval between 50% of the control voltage and 90% of the detected RF. Turn-Off Time is the time interval between 50% of the control voltage and 10% of the detected RF. Switching Speed is defined as the slower of the two times (usually the Turn-On Time).
- (2) Exceeding the maximum Repetition Rate may result in excessive power dissipation in the PIN Diode Driver and can cause unit failure.

