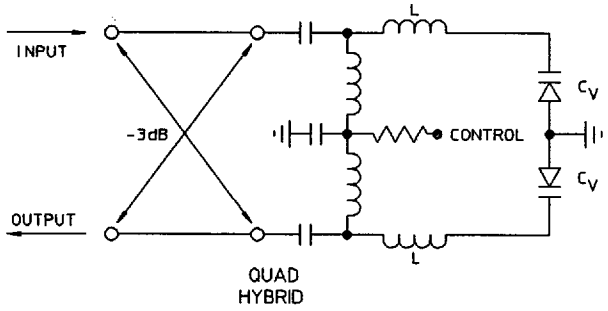
Advanced Specification

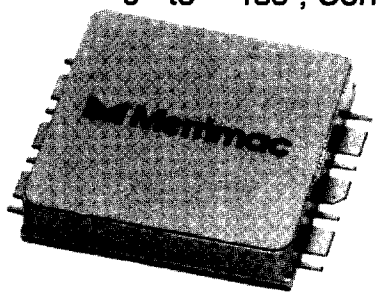
Merrimac

T-77-05-05

PEG-3E series

VOLTAGE VARIABLE PHASE SHIFTER
0° to −180°, Continuous Adjustment
Surface Mount





- **Catalog and Custom to 500 MHz**
- **Low Insertion Loss**
- **Low Profile, Hi-Rel, Hermetic Package**

Model Number	Center Frequency, f_o	Bandwidth RF (MHz)
PEG-3E-70	70 MHz	7
PEG-3E-160	160 MHz	16
PEG-3E-***B	10 - 500 MHz	10% of f_o

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

The PEG-3E series of electronically controlled phase shifters uses a lumped element design for high performance in a space saving surface mount package.

Phase control is achieved by the application of a 0 - 15 Volt control signal, which can be modulated at rates up to 1% of the RF center frequency. This 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 change in the reactance causes a shift in the phase of an RF signal passed through the hybrid.

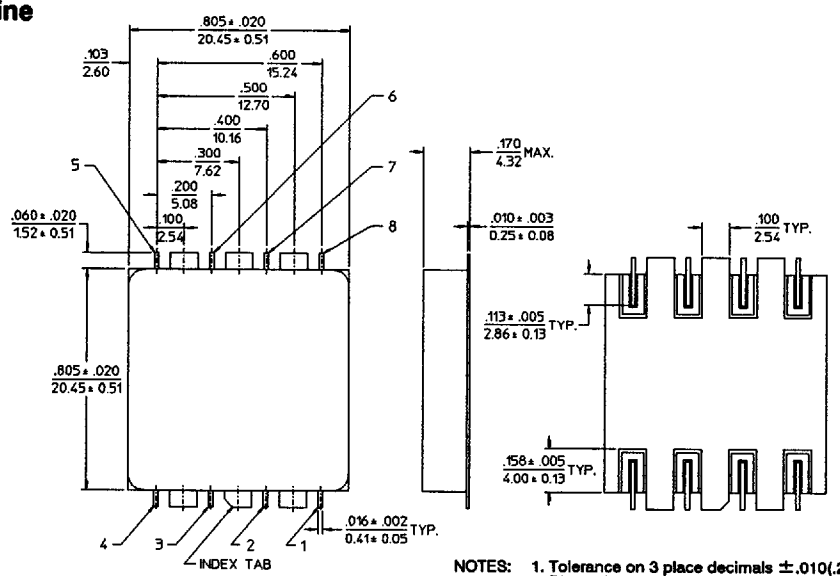
These Phase Shifters are designed for high reliability, and can be supplied screened to meet military and space applications.

COMMON SPECIFICATIONS

RF Characteristics	
Phase Shift Range @ f_o:	180° Min.
Insertion Loss:	1.5 dB Max.
Impedance:	50 Ω nom.
VSWR:	1.6:1 max.
Input Power:	−10 dBm Max.
Control Characteristics	
Control Voltage:	0.5 to +15 V Typ.
	0.5 to +30 V Max.
Modulation Rate, max:	1% of f_o
General Characteristics	
Phase Stability:	0.1°/ °C
Operating Temperature:	−20° to +85°C
Weight, nominal:	0.32 oz. (9 g)

Contact MERRIMAC for further details. (12/91)

E-Package Outline



PIN NO.	FUNCTION
1	Control
2	Ground
3	Ground
4	RF
5	RF
6	Ground
7	Ground
8	Control

NOTES:
1. Tolerance on 3 place decimals ±.010(.25) except as noted.
2. Dimensions in inches over millimeters.
3. All unmarked pins are case ground.
4. Pins 1 & 8 connected internally.

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