

PSES-3 SERIES – PHASE SHIFTERS

TECHNICAL FEATURE

FEATURES

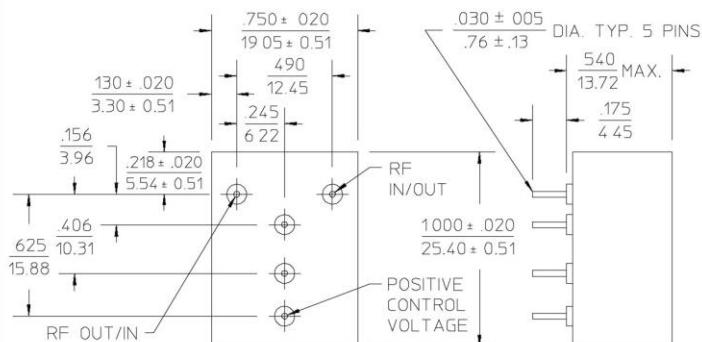
- 10 to 500 MHz
- 0° to 180°
- 10% bandwidth
- Voltage Controlled
- PC Header Package

PRINCIPAL SPECIFICATIONS

| Model Number | Center Frequency, f_0 , MHz | Usable Bandwidth |
|--------------|-------------------------------|------------------|
| PSES-3-***B | 10 to 500 | $f_0 \pm 5\%$ |

For complete Model Number replace *** with desired center frequency, f_0 , in MHz

Package Outline



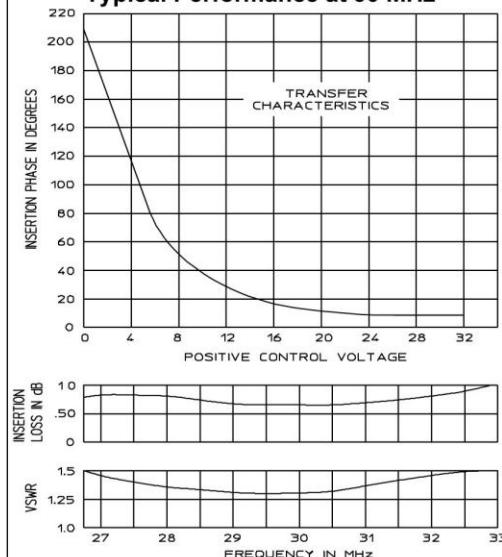
NOTES: 1. Tolerance on 3 place decimals $\pm 010(.25)$ except as noted.
 2. Dimensions in inches over millimeters.
 3. All unmarked pins are internally ground.

GENERAL SPECIFICATIONS

| | |
|--------------------|-------------------|
| Phase Shift Range: | 180° min. @ f_0 |
| Insertion Loss: | 1 dB max. |
| Impedance: | 50 Ω nom. |
| VSWR: | 1.6:1 max. |
| Phase Stability: | 0.1° per °C typ. |
| Control Voltage: | 0.5 to +30V max.* |
| Input Power: | –10 dBm max. |
| Weight, nominal: | 0.49 oz (14 g) |
| Operating Temp: | –55° to +85°C |

*For full control range

Typical Performance at 30 MHz



General Notes:

1. The PSES-3 series of phase shifters provides continuously variable phase shift across a range of 0° to 180° with the application of a control voltage of 0 to +30V.
2. Each phase shifter element employs lumped element quadrature hybrids with matched pairs of varactor tuned LC networks acting as sliding short circuits on the outputs. The electrical length of the short effectively delays the reflected signal which appears at the isolated port of each quadrature hybrid. Similar Phase Shifters are available in a variety of packages, including catalog models in flatpacks and Meri-Pacs.
3. All Merrimac phase shifters are designed for high reliability and can be supplied screened to meet specific military and space applications.

15Feb96

Crane Aerospace & Electronics

Microwave Solutions – Merrimac Industries
 41 Fairfield Place, West Caldwell, NJ 07006
 +1.973.575.1300 ext. 1309 • mw@crane-eq.com
www.craneae.com/mw

PSES3.doc. This revision supersedes all previous releases. All technical information is believed to be accurate, but no responsibility is assumed for errors. We reserve the right to make changes in products or specifications without notice. Copyright © 2013 Crane Electronics, Inc. All rights reserved.

