


## FEATURES

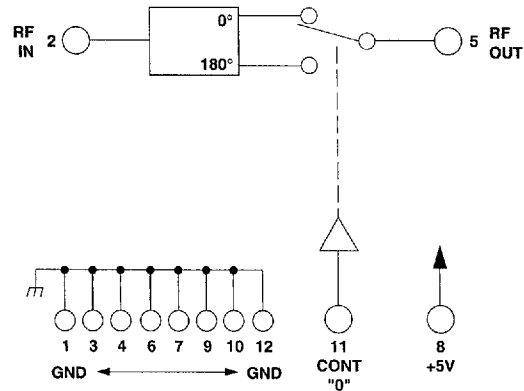
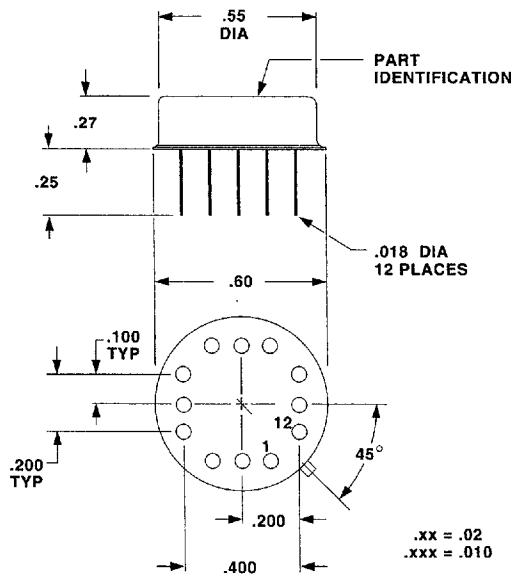
- 10 - 500 MHz
- $\pm 1$  Deg. Phase Accuracy
- 0.3 mA, +5 VDC
- 1.0 dB Insertion Loss
- 35 nSec Transition Time
- 50 nSec Switching Speed
- 22 mV Transients
- TTL Control
- TO-8 Package



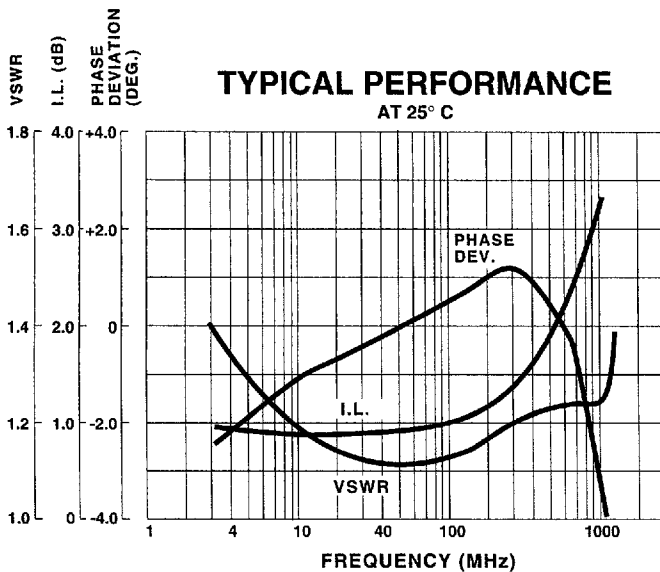
# MODEL NO. DBP0938

## GaAs Bi-Phase Modulator

STOCKED



**BPM**



### GUARANTEED PERFORMANCE

| PARAMETER                    | MIN                  | TYP              | MAX                  | UNITS              | CONDITIONS   |
|------------------------------|----------------------|------------------|----------------------|--------------------|--|
| OPERATING FREQUENCY          | 10                   |                  | 500                  | MHz                |  |
| DC CURRENT                   |                      | 0.3              | 2                    | mA                 | At +5 VDC SUPPLY                                   |
| CONTROL TYPE                 |                      | TTL              |                      |                    | 1 LINE LOGIC "1" = PHASE REVERSAL                  |
| CONTROL CURRENT:             | HIGH<br>LOW          | 0<br>0           | $\pm 20$<br>$\pm 20$ | $\mu$ A<br>$\mu$ A | V <sub>IH</sub> = +3.0V<br>V <sub>IL</sub> = +0.6V |
| INSERTION LOSS               |                      | 1.0<br>1.8       | 1.5<br>2.5           | dB<br>dB           | 10 - 100 MHz<br>100 - 500 MHz                      |
| PHASE:                       | STEP<br>ACCURACY     | 180<br>$\pm 1.0$ | $\pm 3.0$            | DEG<br>DEG         |  |
| VSWR                         |                      | 1.25/1           | 1.4/1                |                    |  |
| IMPEDANCE                    |                      | 50               |                      | OHMS               |  |
| SWITCHING SPEED              |                      | 50               | 70                   | n SEC              | 50% TTL TO 90% / 10% RF                            |
| TRANSITION (RISE/FALL) TIME  |                      | 35               | 50                   | n SEC              | 90% / 10% OR 10% / 90% RF                          |
| SWITCHING (VIDEO) TRANSIENTS |                      | 22               | 50                   | mV                 | PEAK VALUE   |
| INTERCEPT POINTS             | 2ND<br>3RD           | +80<br>+51       |                      | dBm<br>dBm         | 70 MHz / 50 MHz<br>35 MHz / 50 MHz                 |
| RF POWER:                    | OPERATE<br>NO DAMAGE | +17              | +13<br>+23           | dBm<br>dBm         | 0.1 dB COMPRESSION                                 |
| OPERATING TEMPERATURE        |                      | -55              | +25                  | -85                | °C<br>TA   |