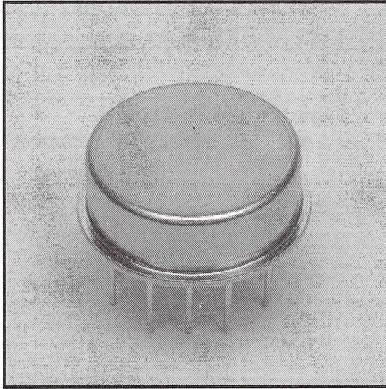




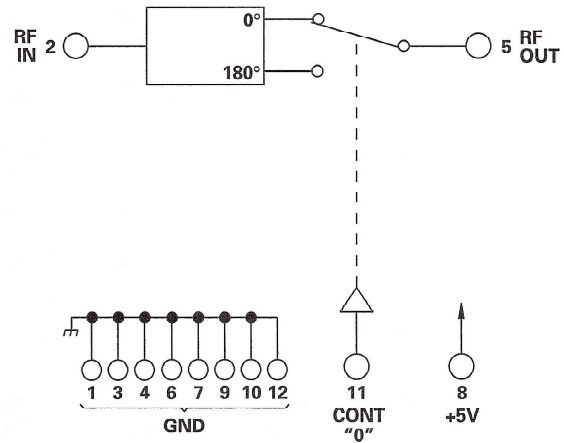
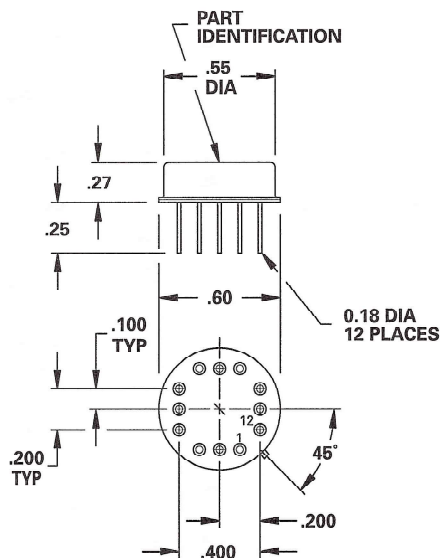
## MODEL NUMBER DPB0938

## GaAs Bi-Phase Modulator

### 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 Time
- 22 mV Transients
- TTL Control
- TO-8 Package

### 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<br>Logic "1" = Phase Reversal   |
| Control Current              | High<br>Low          | 0<br>0           | $\pm 20$<br>$\pm 20$ | $\mu$ A | $V_{IH} = +3.0$ V<br>$V_{IL} = +0.6$ V |
| Insertion Loss               |                      | 1.0<br>1.8       | 1.5<br>2.5           | dB      | 10 - 100 MHz<br>100 - 500 MHz          |
| Phase                        | Step<br>Accuracy     | 180<br>$\pm 1.0$ | $\pm 3.0$            | DEG     |                                        |
| VSWR                         |                      | 1.25/1           | 1.4/1                |         |                                        |
| Impedance                    |                      | 50               |                      | OHMS    |                                        |
| Switching Speed              |                      | 50               | 70                   | nSec    | 50% TTL to 90% / 10% RF                |
| Transition (Rise/Fall) Time  |                      | 35               | 50                   | nSec    | 90% / 10% or 10% / 90% RF              |
| Switching (Video) Transients |                      | 22               | 50                   | mV      | Peak Value                             |
| Intercept Points             | 2nd<br>3rd           | +80<br>+51       |                      | dBm     | 70 MHz / 50 MHz<br>35 MHz / 50 MHz     |
| RF Power                     | Operate<br>No Damage | +17<br>+23       | +13<br>+23           | dBm     | 0.1 dB Compression                     |
| Operating Temperature        | -55                  | +25              | +85                  | °C      | TA                                     |

