**SIRENZA MICRODEVICES**

## DESCRIPTION

The HF series is a line of eight transformers offering all popular configurations in our popular six pin molded epoxy package. These transformers are high reliability devices designed to meet MIL-T-55631.

Typical applications are: Interstage coupling, phase detection and pulse transformation.

## GUARANTEED MINIMUM PERFORMANCE DATA

### SPECIFICATIONS FOR MODEL HF-128

Type: 50 ohm unbalanced
    200 ohm balanced
    DC isolated C.T.

| | |
|---|---|
| − 1 dB Bandwidth, MHz | .5-200 |
| Midband insertion loss dB | 1.0 |
| Amplitude unbalance dB (− 1 dB point) dB | 1.0 |
| Phase unbalance (− 1 dB point)° | 8 |
| VSWR (− 1 dB point) | 2.5:1 |

### SPECIFICATIONS FOR MODEL HF-132

Type: 50 ohm unbalanced
    600 ohm balanced
    DC isolated C.T.

| | |
|---|---|
| − 1 dB Bandwidth, MHz | .1-100 |
| Midband insertion loss dB | 1.5 |
| Amplitude unbalance dB (− 1 dB point) dB | 1.5 |
| Phase unbalance (− 1 dB point)° | 11 |
| VSWR (− 1 dB point) | 1.5:1 |

**NOTE:**
− 1 dB bandwidth is measured relative to midband loss.

**ABSOLUTE MAXIMUM RATINGS:**
Input power 2 w. limited by
$(I_{DC}{}^2 + I_{RF}{}^2)Z \cong P_{max}.$
Temperature range − 54°C to + 100°C
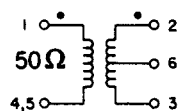
## ENVIRONMENTAL CONDITIONS

**GUARANTEED ENVIRONMENTAL PERFORMANCE:**
All units are designed to meet their specifications over − 54°C to + 100°C and after exposure to any or all of the following tests per MIL-STD-202E.

| Exposure | Method | Test Condition |
|---|---|---|
| Thermal Shock | 107D | B |
| Altitude | 105C | G |
| H.F. Vibration | 204C | D |
| Mechanical Shock | 213B | C |
| Random Vibration (15 minutes per axis) | 214 | IIF |
| Solderability | 208C | |
| Terminal Strength | 211A | C |
| Resistance to Soldering Heat | 210A | B |

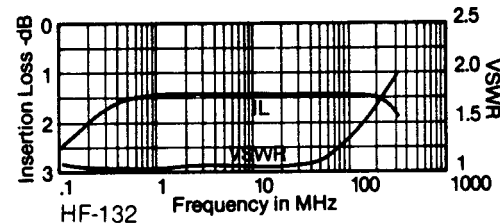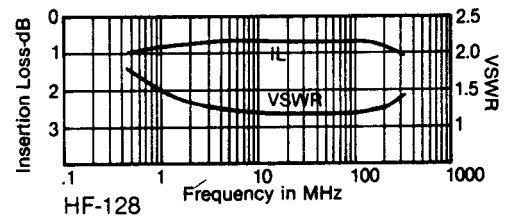Sealed units, meet the requirements of Method 106D of MIL-STD-202E when exposed to humidity.

## FUNCTIONAL SCHEMATIC

50 Ω — pins I, 4,5 / 2, 6, 3

## TYPICAL PERFORMANCE

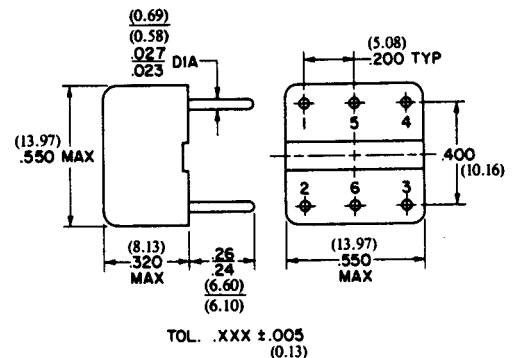HF-128   Frequency in MHz

HF-132   Frequency in MHz

## PACKAGE

**MATERIAL:**

Header: Diallyl Phthalate
Leads: Phosphor Bronze, Grade A, Spring temper

**FINISH:**

Header: Glossy red Diallyl Phthalate
Leads: Silver plated per QQ-S-365A, Type I, Grade B

(0.69)
(0.58)
.027
.023 DIA

(13.97) .550 MAX

(8.13) .320 MAX

.26 .24 (6.60) (6.10)

(5.08) .200 TYP

.400 (10.16)

(13.97) .550 MAX

TOL. .XXX ±.005 (0.13)