

HF-110/HF-122  
Wideband  
RF/Pulse  
Transformers  
.1-500 MHz/.1-700 MHz



### 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-110

Type: 50 ohm unbalanced  
50 ohm balanced

- 1 dB Bandwidth, MHz	.1-500
Midband insertion loss dB	.5
Amplitude unbalance dB (- 1 dB point)	1.0
Phase unbalance (- 1 dB point) <sup>°</sup>	5
(deviation from 180 <sup>°</sup> ) <sup>°</sup>	
VSWR (- 1 dB point)	2.0:1

#### SPECIFICATIONS FOR MODEL HF-122

Type: 50 ohm unbalanced  
200 ohm balanced

- 1 dB Bandwidth, MHz	1-700
Midband insertion loss dB	1.2
Amplitude unbalance dB (- 1 dB point)	1.5
Phase unbalance (- 1 dB point) <sup>°</sup>	7
(deviation from 180 <sup>°</sup> ) <sup>°</sup>	
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

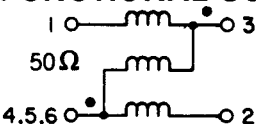
#### GUARANTEED ENVIRONMENTAL PERFORMANCE:

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

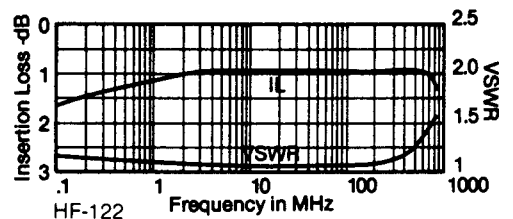
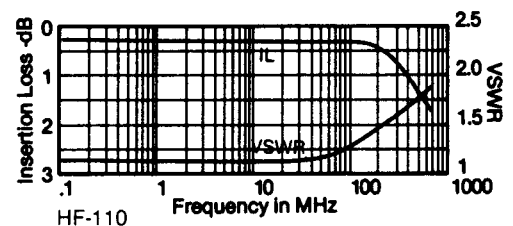
Sealed units, meet the requirements of Method 106D of MIL-STD-202E when exposed to humidity.

### FUNCTIONAL SCHEMATIC



Specifications subject to change without notice.

### TYPICAL PERFORMANCE



### 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

