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

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.

Specifications subject to change without notice.

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) dB	1.0
Phase unbalance (−1 dB point)° (deviation from 180°)°	5
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) dB	1.5
Phase unbalance (−1 dB point)° (deviation from 180°)°	7
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 $(I_{DC}^2 + I_{RF}^2)Z \cong$ Pmax.
Temperature range −54°C to +100°C

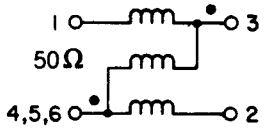
ENVIRONMENTAL CONDITIONS

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.

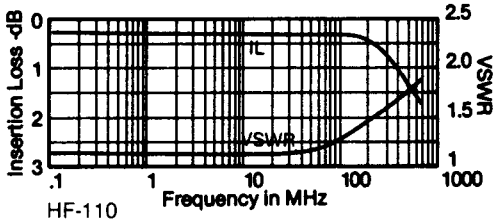
Exposure	Method	Test Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration (15 minutes per axis)	214	IIF
Solderability	208C	
Terminal Strength	211A	C
Resistance to Soldering Heat	210A	B

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

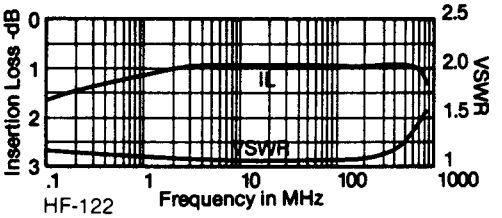
FUNCTIONAL SCHEMATIC



TYPICAL PERFORMANCE



HF-110



HF-122

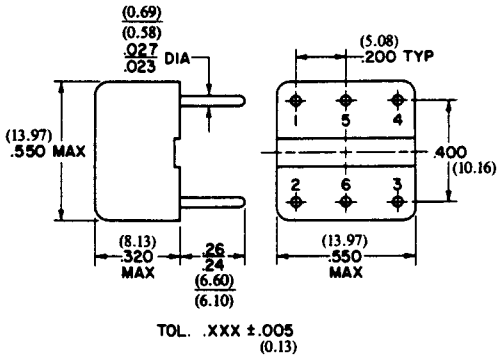
PACKAGE

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



8.10.04 Rev. A