HYB-1
Wideband Impedance Transforming 180° 3 dB Hybrid 1-300 MHz

SIRENZA MICRODEVICES

DESCRIPTION

The HYB-1 offers excellent isolation and balance over the 1 to 300 MHz frequency range. Pins 1-6 and 2-3 are mutually isolated. HYB-1 is packaged in molded Diallyl Phthalate. Pins 1-6 are 50 ohms while the output Pins 2-3 have 100 ohms impedance.

GUARANTEED MINIMUM PERFORMANCE DATA

Isolation (dB) pins 1-6	17
− 1 dB Bandwidth, MHz	1-300
Midband insertion loss dB	.9
Amplitude unbalance dB	1
Phase unbalance°	15
VSWR (R = 50Ω)	1.75

ABSOLUTE MAXIMUM RATINGS:

Input power 2 w.
Temperature range − 54°C to + 100°C

ENVIRONMENTAL CONDITIONS

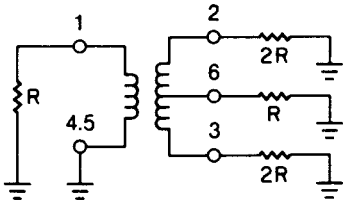
GUARANTEED ENVIRONMENTAL PERFORMANCE:

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.

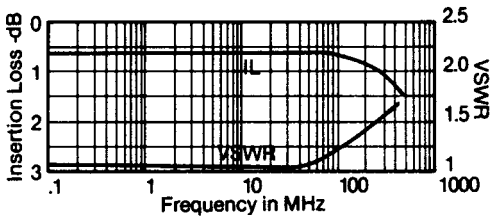
Exposure	Method	Test Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration (15 minutes per axis)	214	IIF
Solderability	208C	
Terminal Strength	211A	C
Resistance to Soldering Heat	210A	B

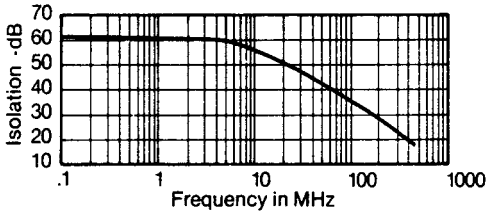
Sealed units, meet the requirements of Method 106D of MIL-STD-202E when exposed to humidity.

FUNCTIONAL SCHEMATIC



TYPICAL PERFORMANCE





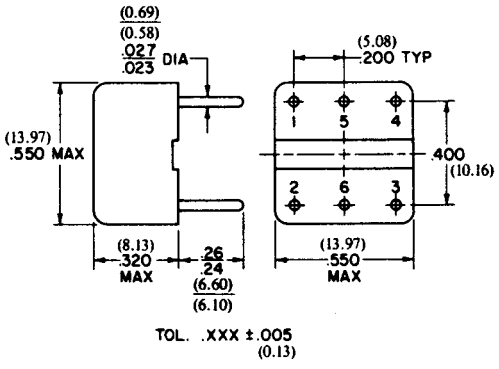
PACKAGE

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



Specifications subject to change without notice.

8.10.04 Rev. A