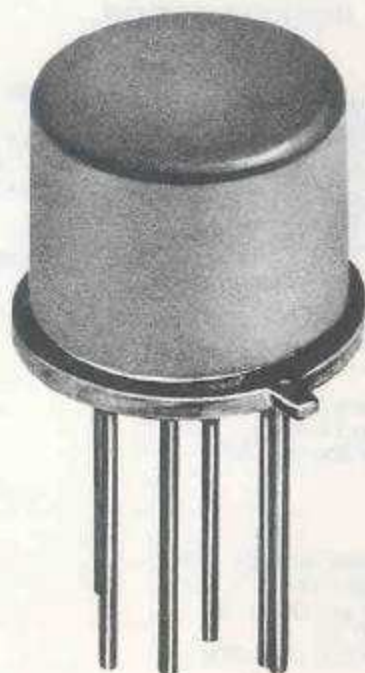


VARI-L

TO-228/TO-232
Wideband
RF/Pulse
Transformers
.25-200 MHz/.5-100 MHz



DESCRIPTION

The TO series is a line of six TO-5 packaged transformers offering the most common configurations.

These transformers are high reliability devices designed to meet MIL-T-55631. Typical applications are: Interstage coupling, phase detection and pulse transformation.

LIMITED WARRANTY

Vari-L Company, Inc. warrants its products against defects in parts and workmanship for a period of one year.

GUARANTEED MINIMUM PERFORMANCE DATA

SPECIFICATIONS FOR MODEL TO-228

Type: 50 ohm unbalanced	
200 ohm balanced	
symm. DC isolated C.T.	
- 1 dB Bandwidth, MHz	.25-200
Midband insertion loss dB	.75
Amplitude unbalance	1
Phase unbalance (deviation from 180°)*	8
VSWR	2:1

SPECIFICATIONS FOR MODEL TO-232

Type: 50 ohm unbalanced	
600 ohm balanced	
DC isolated C.T.	
- 1 dB Bandwidth, MHz	5-100
Midband insertion loss dB	.75
Amplitude unbalance	.25
Phase unbalance (deviation from 180°)*	3
VSWR	2.25:1

NOTE:

- 1 dB bandwidth is measured relative to midband loss.

ABSOLUTE MAXIMUM RATINGS:

Input power 1 w. limited by $I_{DC}^2 + I_{RF}^2 Z \leq P_{max}$
Temperature range - 54°C to +100°C

ENVIRONMENTAL CONDITIONS

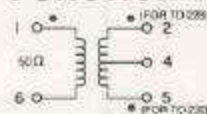
GUARANTEED ENVIRONMENTAL PERFORMANCE:

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.

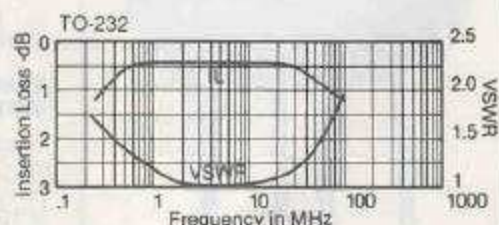
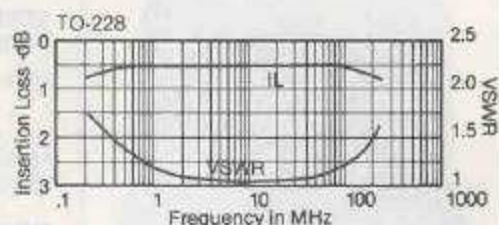
Exposure	Method	Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration (15 minutes per axis)	214	IIF
Solderability	208C	
Terminal Strength	211A	C
Resistance to Soldering Heat	210A	B

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

FUNCTIONAL SCHEMATIC



TYPICAL PERFORMANCE



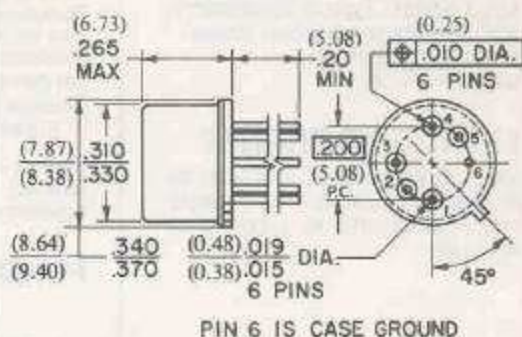
PACKAGE

MATERIAL:

Header & Leads: F15 Kovar per ASTM Standard F-15-68
Cover: Nickel 200 per ASTM B162-58T

FINISH:

Header & Leads: Gold per MIL-G-45204, Type I, Grade A, Class 1, over nickel per QQ-N-290, Class 1, Form SB
Cover: Nickel 200 per ASTM B162-58T



TRANSFORMERS