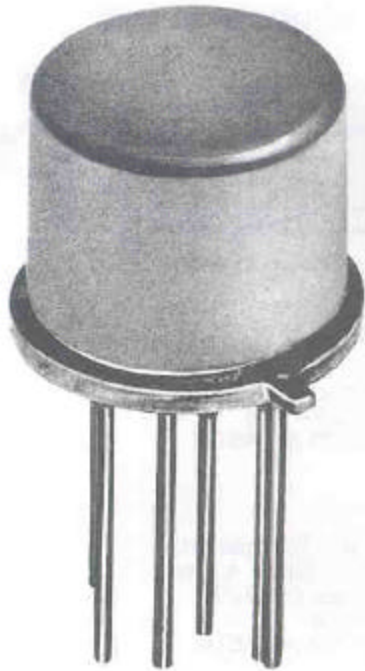


TO-222  
Wideband  
RF/Pulse  
Transformers  
.5-450 MHz

# VARI-L



## 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-222

Type: 50 ohm unbalanced  
200 ohm balanced  
symm.

- 1 dB Bandwidth, MHz	5-450
Midband insertion loss dB	1.25
Amplitude unbalance	1
Phase unbalance (deviation from 180°)	17
VSWR	2.25:1

### NOTE:

- 1 dB bandwidth is measured relative to midband loss.

### ABSOLUTE MAXIMUM RATINGS:

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

### ENVIRONMENTAL CONDITIONS

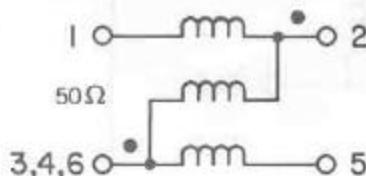
#### GUARANTEED ENVIRONMENTAL PERFORMANCE:

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.

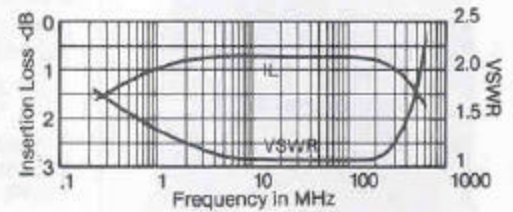
Exposure	Method	Condition	Test Condition
Thermal Shock	107D	B	
Altitude	105C	G	
H.F. Vibration	204C	D	
Mechanical Shock	213B	C	
Random Vibration	214	IIF	
(15 minutes per axis)			
Solderability	208C		
Terminal Strength	211A	C	
Resistance to Soldering Heat	210A	B	

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

### FUNCTIONAL SCHEMATIC



## TYPICAL PERFORMANCE



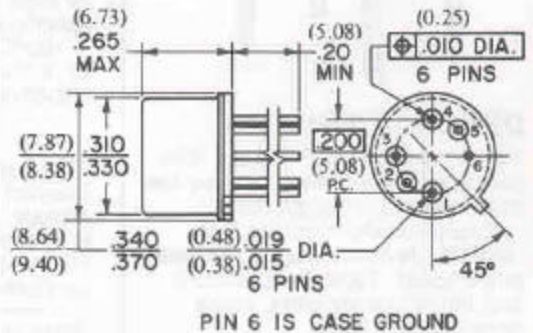
## PACKAGE

### 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