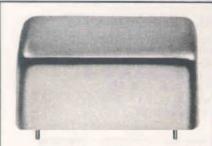


SS-50 SPST High Isolation RF Switch 1-200 MHz



### DESCRIPTION

SS-50 is a high performance, moderately priced RF switch intended for signal switching at lower to medium IF frequencies. High ON/OFF ratio and excellent isolation of switching signal transients makes this switch suitable for use as an RF/IF gate and in noise blanker circuits.

The circuitry, consisting of two balanced transformers and 8 matched Schottky diodes are encapsulated to withstand severe environments in a sealed enclosure.

Each SS-50 is individually tested to Vari-L's demanding quality and performance specifications.

### 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

## TEST CONDITION

"On": Input power +6 dBm +20 mA bias "Off": Input power +6 dBm

- 20 mA bias Switching port driven by a 20 mA constant current source.

#### OVERALL FREQUENCY RANGE:

1-200 MHz

## FREQUENCY BANDS IN

0-200	j
2.5	
50	
1.5	
- 1	

### **ABSOLUTE MAXIMUM RATINGS:**

Operating Temperature - 54°C to +100°C Total RF input power 100 mW @ +25°C

Derate linearly to 50 mW @ + 100°C Max. DC bais current 50 mA

# ENVIRONMENTAL CONDITIONS

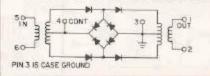
## GUARANTEED ENVIRONMENTAL PERFORMANCE:

All units are designed to meet their specifications over  $-54^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  and after exposure to any or all of the following tests per MIL-STD-202E.

	lest		
Exposure	Method (	Condition	
Thermal Shock	107D	В	
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	В	

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

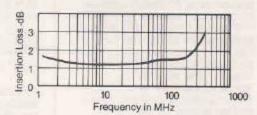
## **FUNCTIONAL SCHEMATIC**

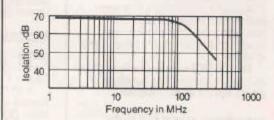


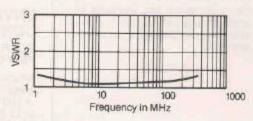
## TYPICAL PERFORMANCE

Impedance: 50 ohms
3rd Order Intercept Point: + 32 dBm
(on condition)
Switching Signal Palestian: 20 dB

Switching Signal Rejection: 30 dB Rise and Fall Time: 10 nS Signal Power up to +10 dBm On Off Current up to ±37 mA







### PACKAGE MATERIAL:

Header: SAE 1008 or equivalent Cover; CRS QQ-S-698

Pins: Type D or F per MIL-STD-1276 Glass: Corning type 9010 or equivalent

### FINISH:

Header and Pins; tin per MIL-T-10727, Type II Cover: Tin per MIL-T-10727, Type II

