SS-30
SPST
High
Isolation,
BNC Equipped
Wideband
RF Switch
.5-500 MHz

VARI-L

DESCRIPTION

SS-30 is a connector equipped RF switch suitable for general lab use as well as in new equipment where high broadband isolation is required. In addition to the high isolation, the SS-30 offers outstanding match as well as high switching signal suppression.

The circuitry, consisting of special wideband transformers and matched Schottky diodes are packaged in a shielded enclosure.

Each SS-30 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 +10 dBm
+20 mA bias
"Off": Input power +10 dBm
−20 mA bias

Switching port driven by a 20 mA constant current source.

OVERALL FREQUENCY RANGE:

.5-500 MHz

FREQUENCY BANDS IN MHZ:

	5-50	.5-500
Insertion loss (dB)	3.5	6.0
Isolation (dB)	75	50
VSWR (on)	1.75	1.75

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

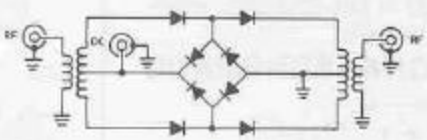
ENVIRONMENTAL CONDITIONS

GUARANTEED ENVIRONMENTAL PERFORMANCE:

All units are designed to meet their specifications over −54°C to +100°C and after exposure to any or all of the following tests per MIL-STD-202E.

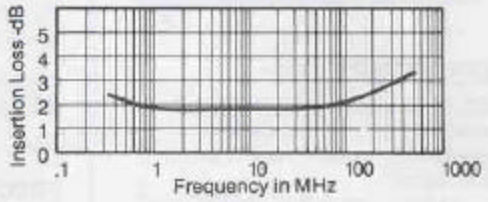
Exposure	Method	Test Condition
Thermal Shock	107D	B
Altitude	105C	G
H.F. Vibration	204C	D
Mechanical Shock	213B	C
Random Vibration (15 minutes per axis)	214	IIF

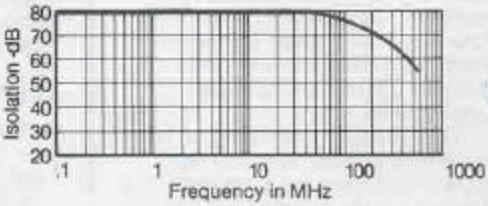
FUNCTIONAL SCHEMATIC

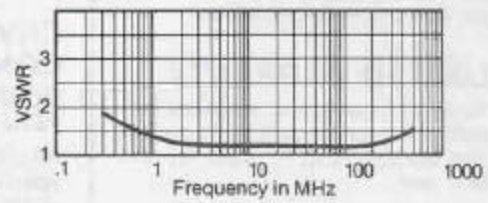


TYPICAL PERFORMANCE

Impedance: 50 ohms
3rd Order Intercept Point: +20 dBm (on condition)
Switching Signal Rejection: 43 dB
Rise and Fall Time: 10 nS
Signal Power up to +17 dBm
On Off Current up to ±37 mA







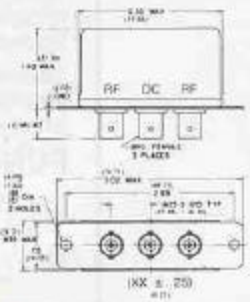
PACKAGE

MATERIAL:

Header, Plate and Cover: CRS per QQ-S-698
Connectors: Non ferrous

FINISH:

Header, Plate and Cover: Bright Nickel per QQ-N-290A
Connectors: Silver plated



SWITCHES