SP3T Reflective Switches With Drivers and Removable Connectors

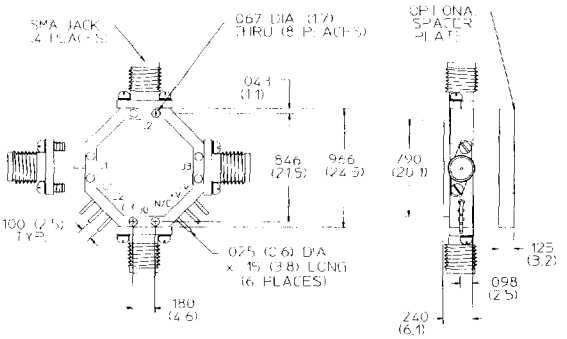
2682 Series

Features

- Broadband Frequency Ranges
- Hermetically Sealed
- TTL Compatible
- Removable SMA Connectors

Description

M/A-COM's diode switches cover multi-octave bandwidths from UHF to Ku-band. M/A-COM's capability in both semiconductor and digital circuit technology allows considerable flexibility in the tradeoffs of power, speed, RF parameters and drivers. These switches may be used as drop-ins in stripline assemblies simply by removing the SMA connectors. In addition, the field replaceable connectors allow replacement of a damaged connector without violating the hermetic seal. Typical insertion loss, return loss, and isolation curves are shown below.



RF Connector (4 Places): .015 Dia. (0.4), .100 Long (2.5)

Environmental

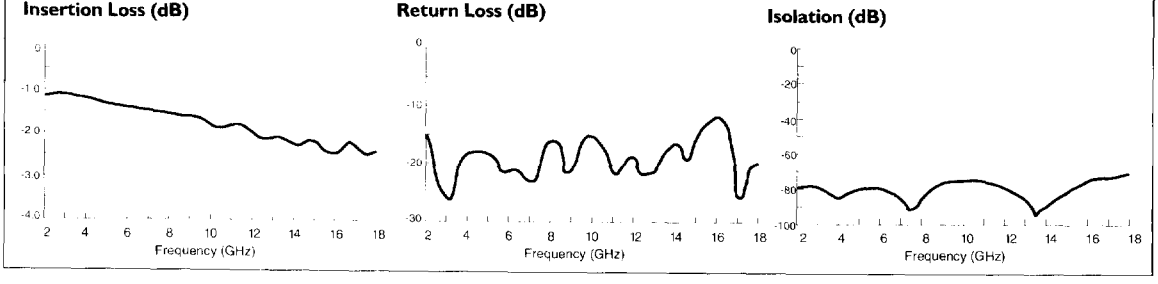
These devices are designed to meet the following screening conditions:

Test	MIL-STD	Method	Cond
Non-Destructive Bond Pull	883	2023	
Internal Visual	883	2017	
Stabilization Bake	883	1008	B
Thermal Cycle	883	1010	B
Constant Acceleration	883	2001	A (Y1 Axis)
Burn-in	883	1015	125°C
Seal Fine	883	1014	A1
Seal Gross	883	1014	C1
External Visual	883	2009	

Maximum Ratings

Storage Temp.	-65°C to +125°C
Operating Temp.	-55°C to +95°C

Typical Performance Data 2682-1004-XY



Specifications Subject to Change Without Notice.

Specifications 25°C

Frequency Range (GHz)	Insertion Loss (dB)	VSWR	Isolation (dB)	Transition Time (nS)	Switching Speed (nS)	Operating Power (W)	Part Number[4]
0.5-2.0	1.2	1.50:1	70	10	25	0.1	2682-1001-XY
2-8	1.8	1.80:1	70	10	25	0.1	2682-1002-XY
6-18	2.5	2.00:1	70	10	25	0.1	2682-1003-XY
2-18	2.8	2.00:1	65	10	25	0.1	2682-1004-XY

Notes:
1. Driver current req. +5.0 ±. 25V @ +115mA typ.
   -12.0 ±. 75V @ -55mA typ.
   Alternate bias options are available.
2. Transition Time measured from 10% to 90% of detected RF.
3. Switch Speed measured from 50% TTL to 10%/90% of detected RF.
4. Specify voltage from option table. To designate option spacer plate, change 5th digit of part number to "2", i.e. 2682-2001-XY.

-XY Option Table

X Bias Voltage		Y Logic Conn.	
0	+5V/-12V	0	Solder Pin
1	+5V/-5V		
4	+5V/-15V		

Logic Table

TTL Control Input L1	L2	L3	J0-J1	J0-J2	J0-J3
0	1	1	Insertion Loss	Isolation	Isolation
1	0	1	Isolation	Insertion Loss	Isolation
1	1	0	Isolation	Isolation	Insertion Loss

TTL Logic: "0" =0 to 0.8V @ -1.6 mA Max. Sink.
"1" =2.0 to 5.0V @ 40µA Max. Source.