

## SMA SP6T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm

The FMSW2046 is a Single Pole Six Throw (SP6T) Absorptive PIN Diode Switch that operates from 0.1 to 20 GHz. The output port is terminated in 50 ohms when switched in the isolation (off) state. Electrical performance includes 4.2 dB max insertion loss, 65 dB min isolation, and 75 nsec max switching speed. The design incorporates TTL-compatible driver circuitry for accurate logic control. Operational temperature range is -55°C to +85°C and dual voltage controls of +5 Vdc and -12 Vdc are required. The package interface uses solder terminals and SMA Female connectors.



### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.1		20	GHz
Impedance		50		Ohms
VSWR			2:1	
Insertion Loss			4.2	dB
Isolation	65			dB
Switching Time			75	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage	4.7	5	5.3	V
Negative Operating Voltage	-12	-15	-20	Vdc
Current @ 5 Vdc			240	mA
Current @ -15Vdc			40	mA
Operating Temperature	-55		+85	deg C

### Mechanical Specifications

Length	1.34 in [34.04 mm]
Width	1.34 in [34.04 mm]
Height	0.45 in [11.43 mm]
Weight	0.0825 lbs [37.42 g]
Design	Absorptive, SP6T
RF Connector	SMA Female
RF Connector Specification	MIL-C-39012
Control Connector	Solder Pin

### Environmental Specifications

#### Temperature

Operating Range	-55 to +85 deg C
Storage Range	-65 to +125 deg C

ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.
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### Features:

- SP6T Absorptive Switch
- 100 MHz to 20 GHz
- Insertion Loss 4.2 dB max
- Isolation 65 dB min
- Switching speed 75 nsec max
- Max Operating Power +27 dBm

### Applications:

- Test & Measurement
- Military Communication
- Commercial Communication
- Wireless Communications
- SATCOM
- Military Electronic Systems
- RF Test Stations

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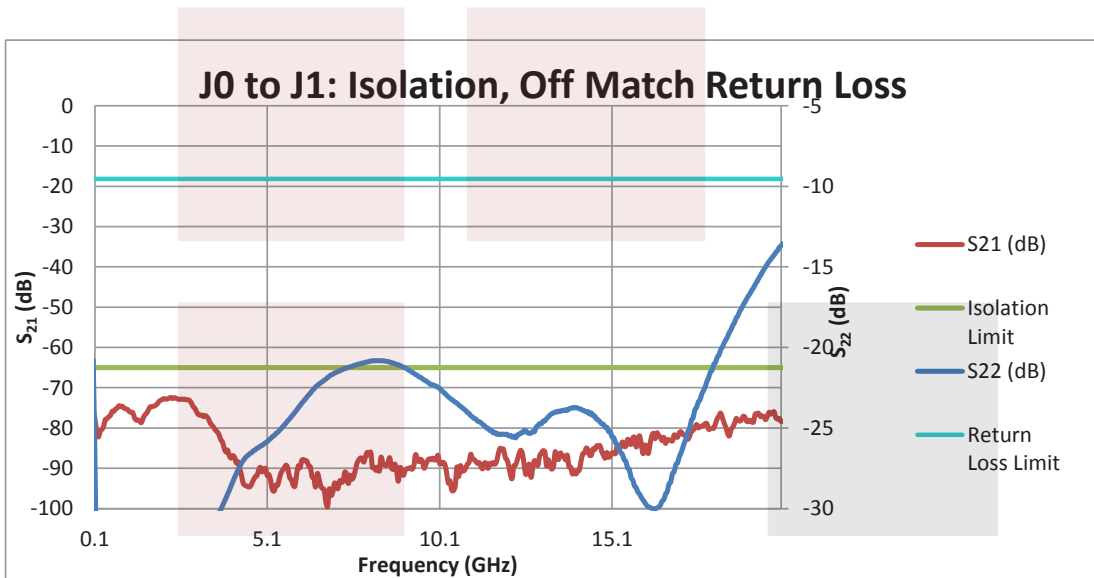
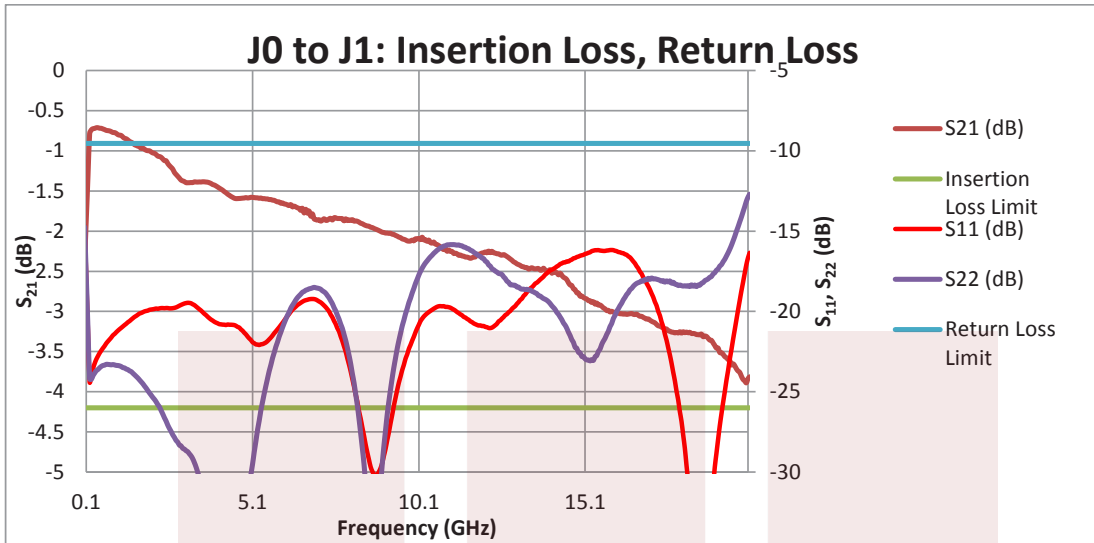
**Compliance Certifications** (see [product page](#) for current document)

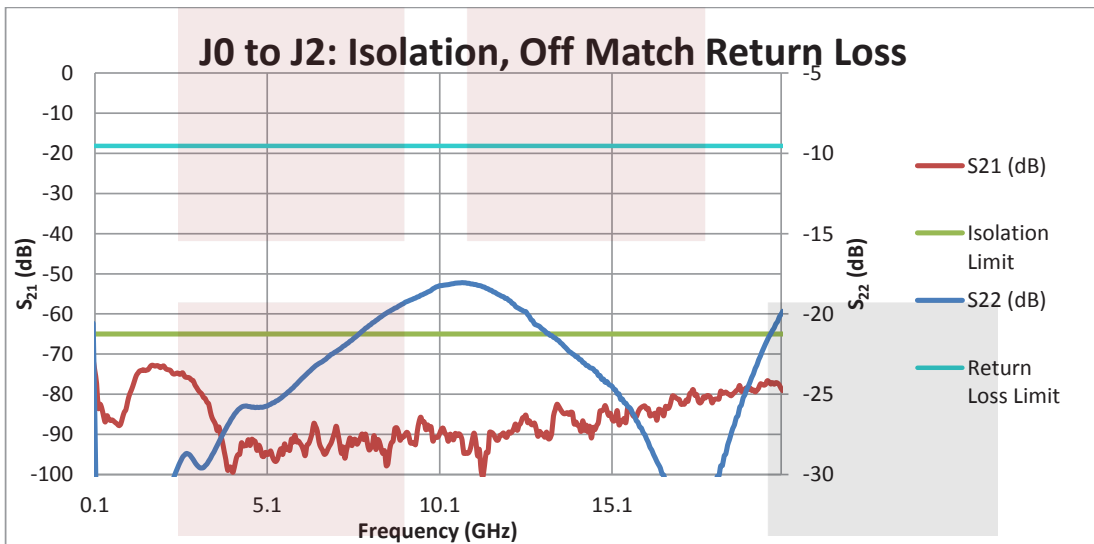
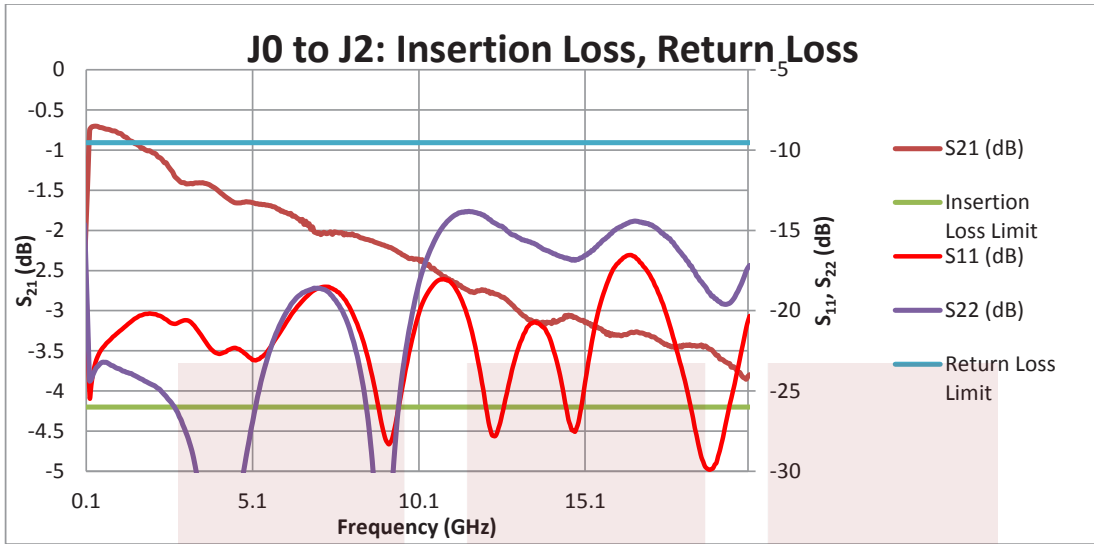
**Plotted and Other Data**

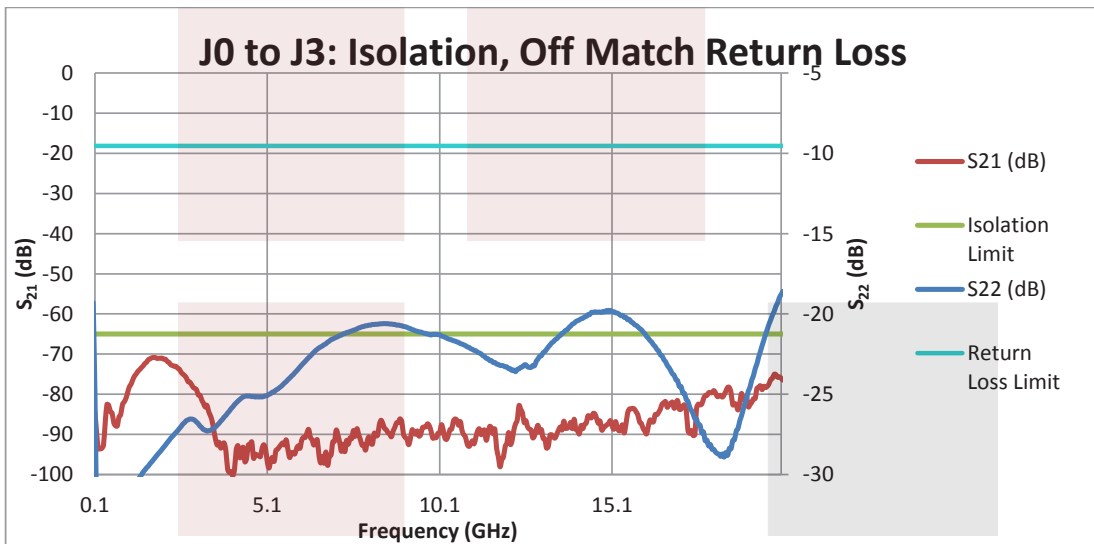
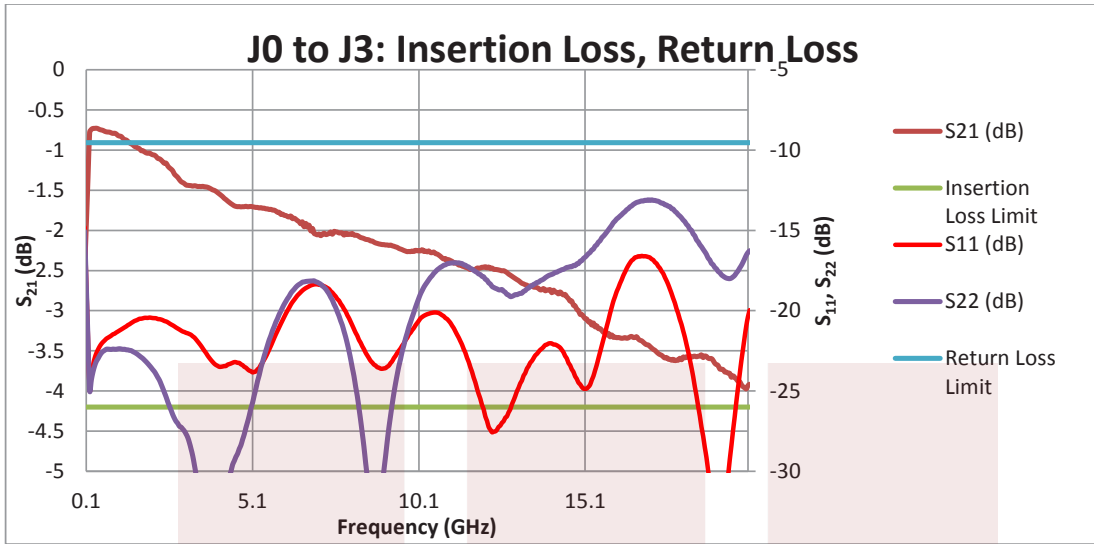
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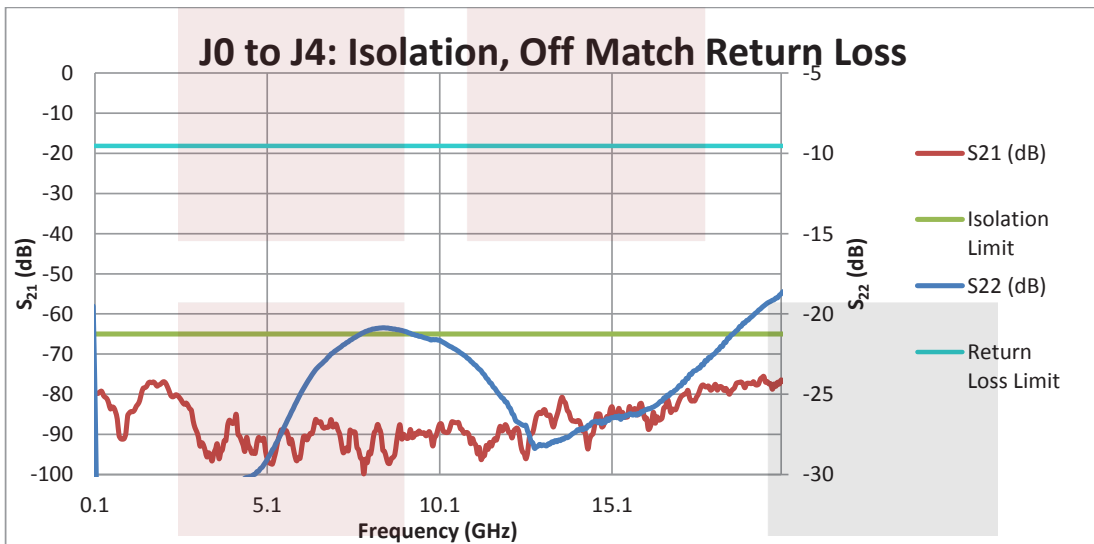
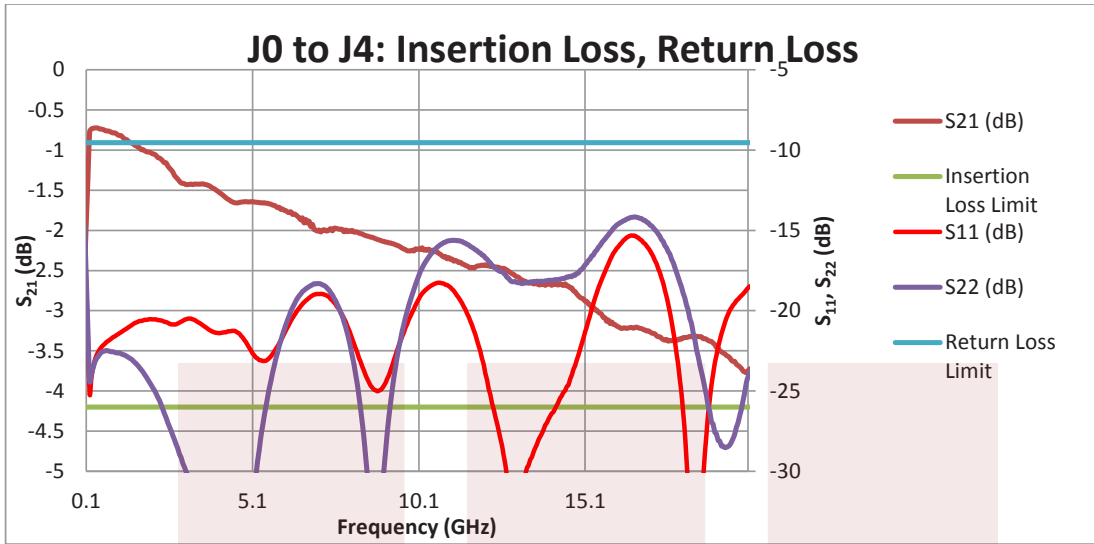


**Typical Performance Data**







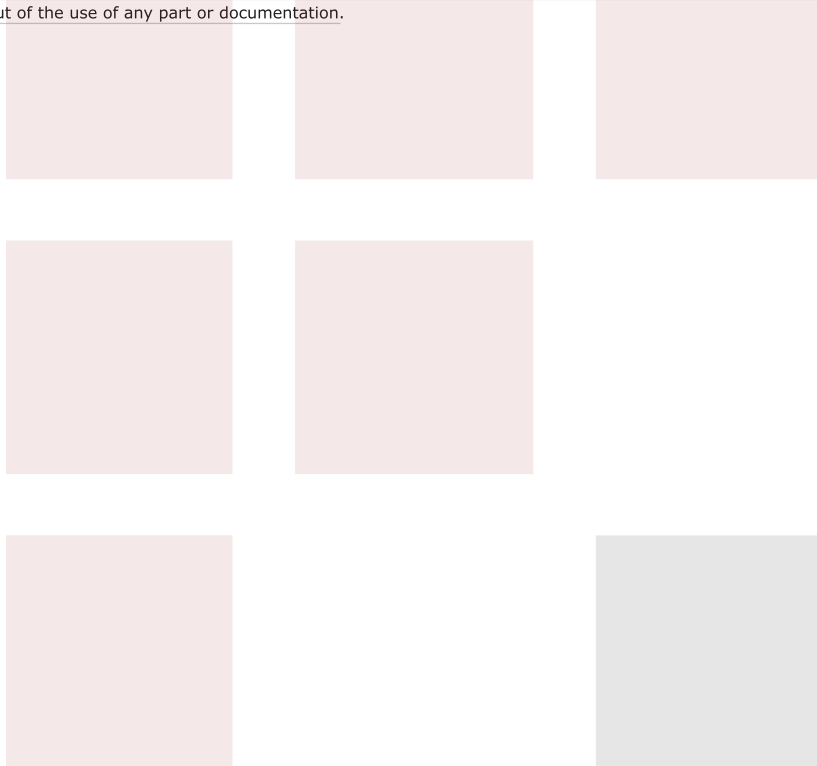


SMA SP6T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA SP6T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm FMSW2046](#)

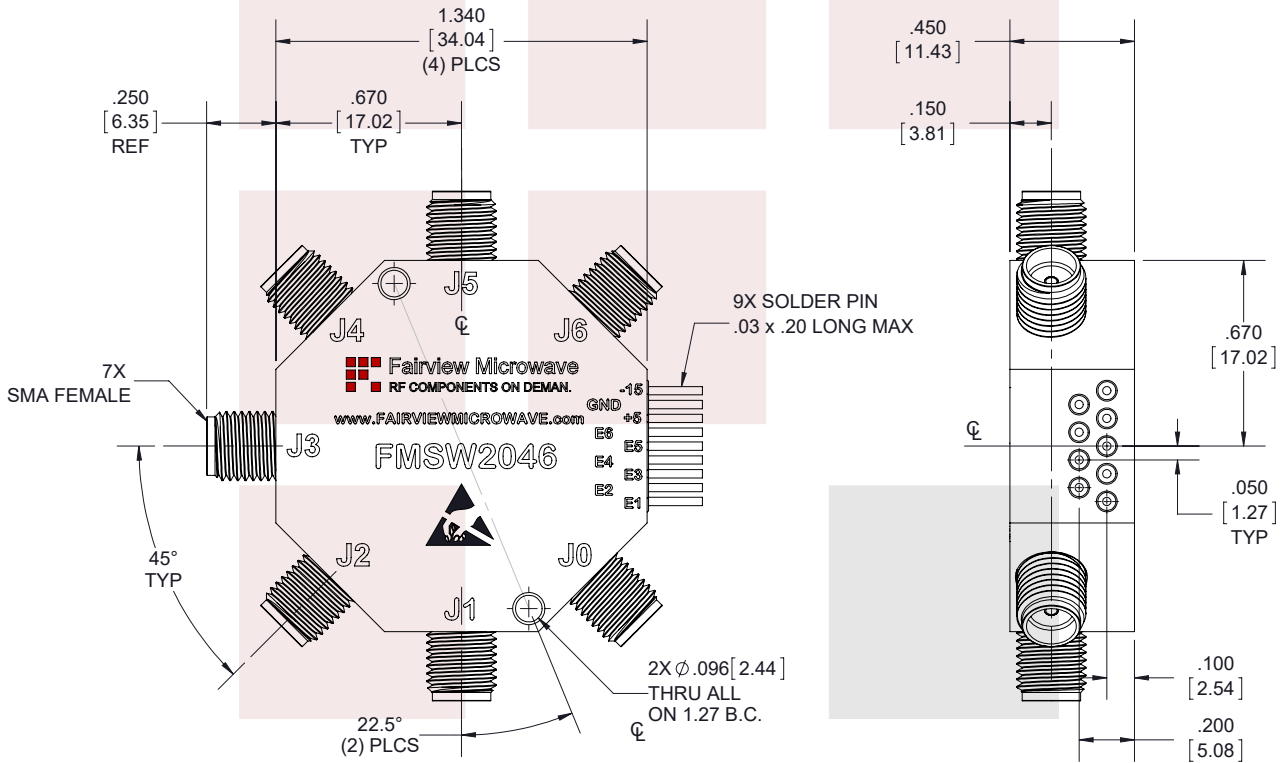
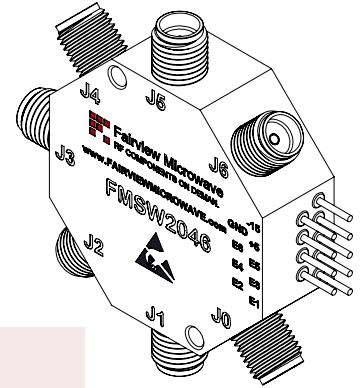
URL: <https://www.fairviewmicrowave.com/sma-sp6t-pin-diode-switch-absorptive-20-ghz-27-dbm-fmsw2046-p.aspx>

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TTL LOGIC TABLE						
E1	E2	E3	E4	E5	E6	Low Loss
0	1	1	1	1	1	J0 - J1
1	0	1	1	1	1	J0 - J2
1	1	0	1	1	1	J0 - J3
1	1	1	0	1	1	J0 - J4
1	1	1	1	0	1	J0 - J5
1	1	1	1	1	0	J0 - J6

NOTE:  
 • 0 = LOW LOSS  
 • 1 = ISOLATION



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].				
TITLE SMA SP6T PIN Diode Switch Absorptive From 100 MHz to 20 GHz Rated at +27 dBm		DWG NO FMSW2046		CAGE CODE 3FKR5		
CAD FILE	100917	SHEET	1 OF 1	SCALE	N/A	SIZE A 7361