

**1.85mm SPST PIN Diode Switch From  
 50 MHz to 67 GHz Rated at +27 dBm**

The FMSW2023 is a Single Pole Single Throw (SPST) Reflective PIN Diode Switch that operates from 0.05 to 67 GHz. Electrical performance includes 8.5 dB max insertion loss, -4 dB max return loss, 20 dB min isolation, and 150 nsec max switching speed. The design incorporates TTL-compatible driver circuitry for accurate logic control. Operational temperature range is -30°C to +60°C and dual voltage controls of +5 Vdc and -5 Vdc are required. The package interface uses solder terminals and 1.85mm Female connectors.



**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	0.05		67	GHz
Impedance		50		Ohms
Return Loss			-4	dB
Insertion Loss			8.5	dB
Isolation	20			dB
Switching Time			150	ns
Input Power (CW)			0.5	Watts
Positive Operating Voltage		5		Vdc
Negative Operating Voltage		-5		Vdc
Current @ 5 Vdc		50		mA
Current @ -5 Vdc		50		mA
Operating Temperature	-30		+60	deg C

Electrical Specification Notes:  
 Specified switching time includes TTL driver delay.

**Mechanical Specifications**

Length	1 in [25.4 mm]
Width	1 in [25.4 mm]
Height	0.5 in [12.7 mm]
Weight	0.0856 lbs [38.83 g]
Design	Reflective, SPST
RF Connector	1.85mm Female
Control Connector	Solder Pin

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-30 to +60 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle only in ESD Workstation.



**Features:**

- SPST Reflective Switch
- 0.05 GHz to 67 GHz
- Insertion Loss 8.5 dB max
- Isolation 20 dB min
- Power Input +27 dBm CW max

**Applications:**

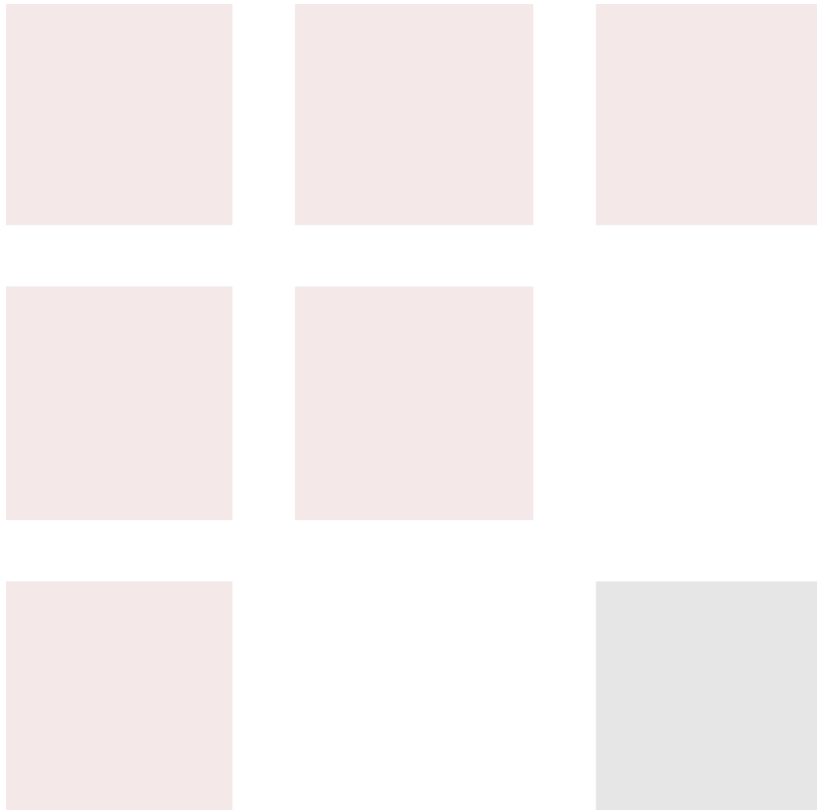
- Test & Measurement
- Military Communication
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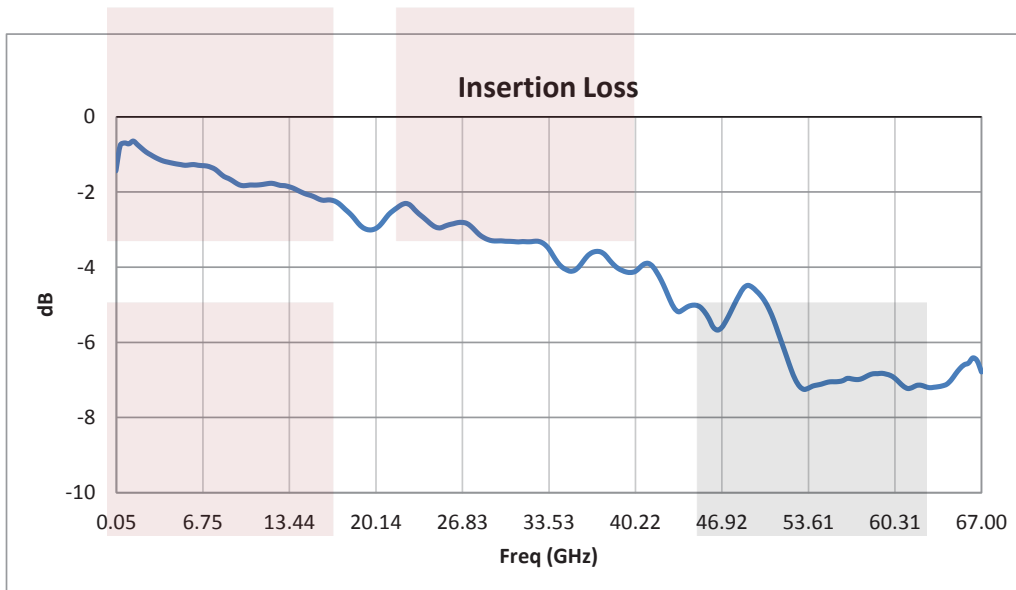
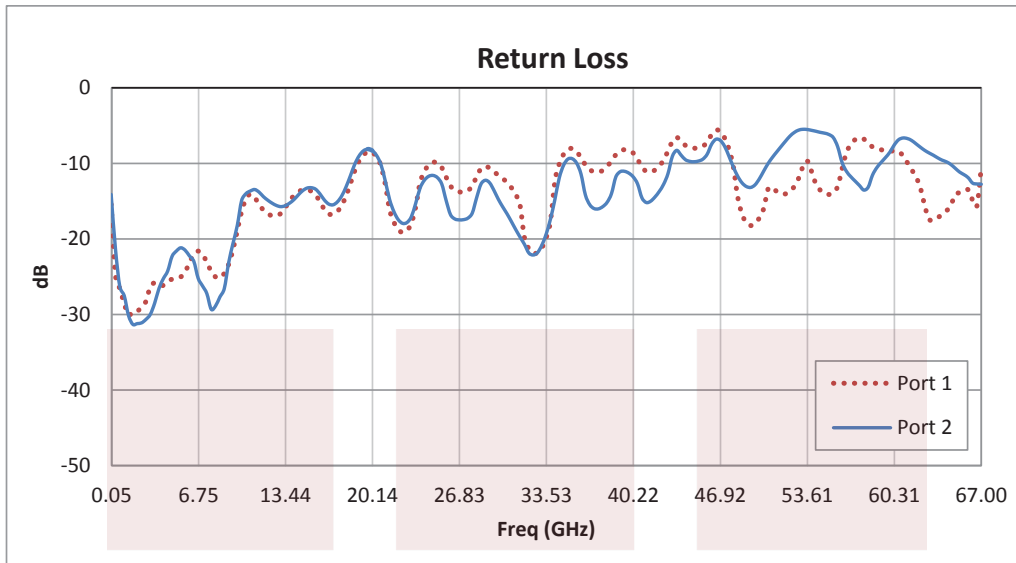
**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

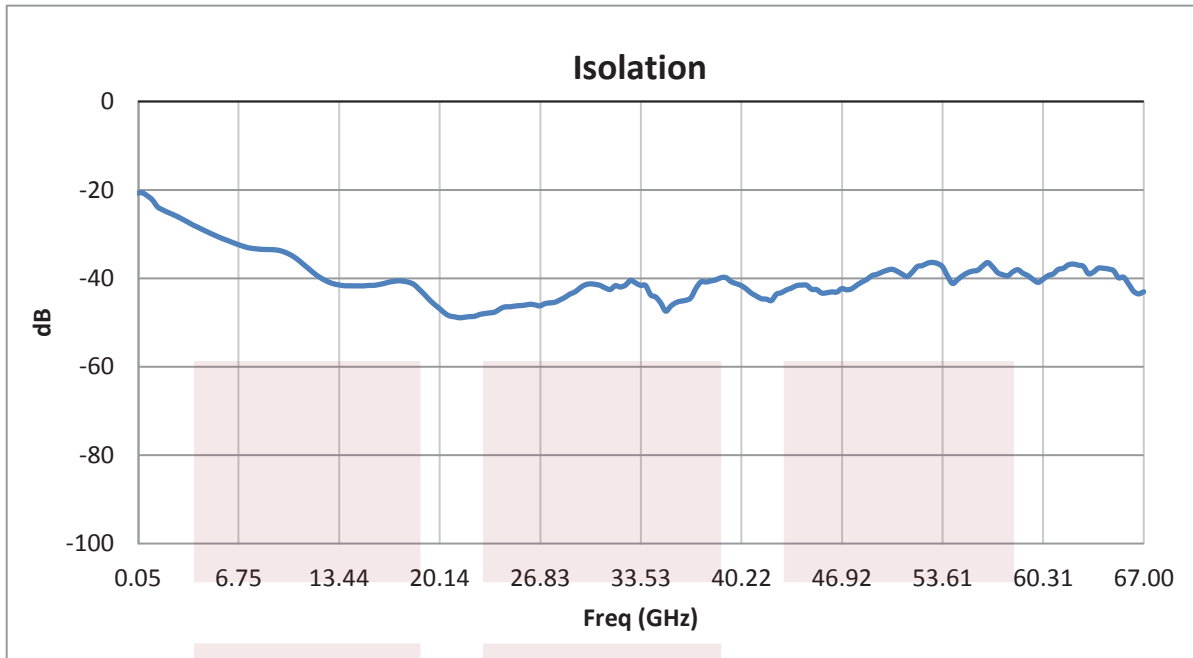
**Plotted and Other Data**

Notes:



**Typical Performance Data**



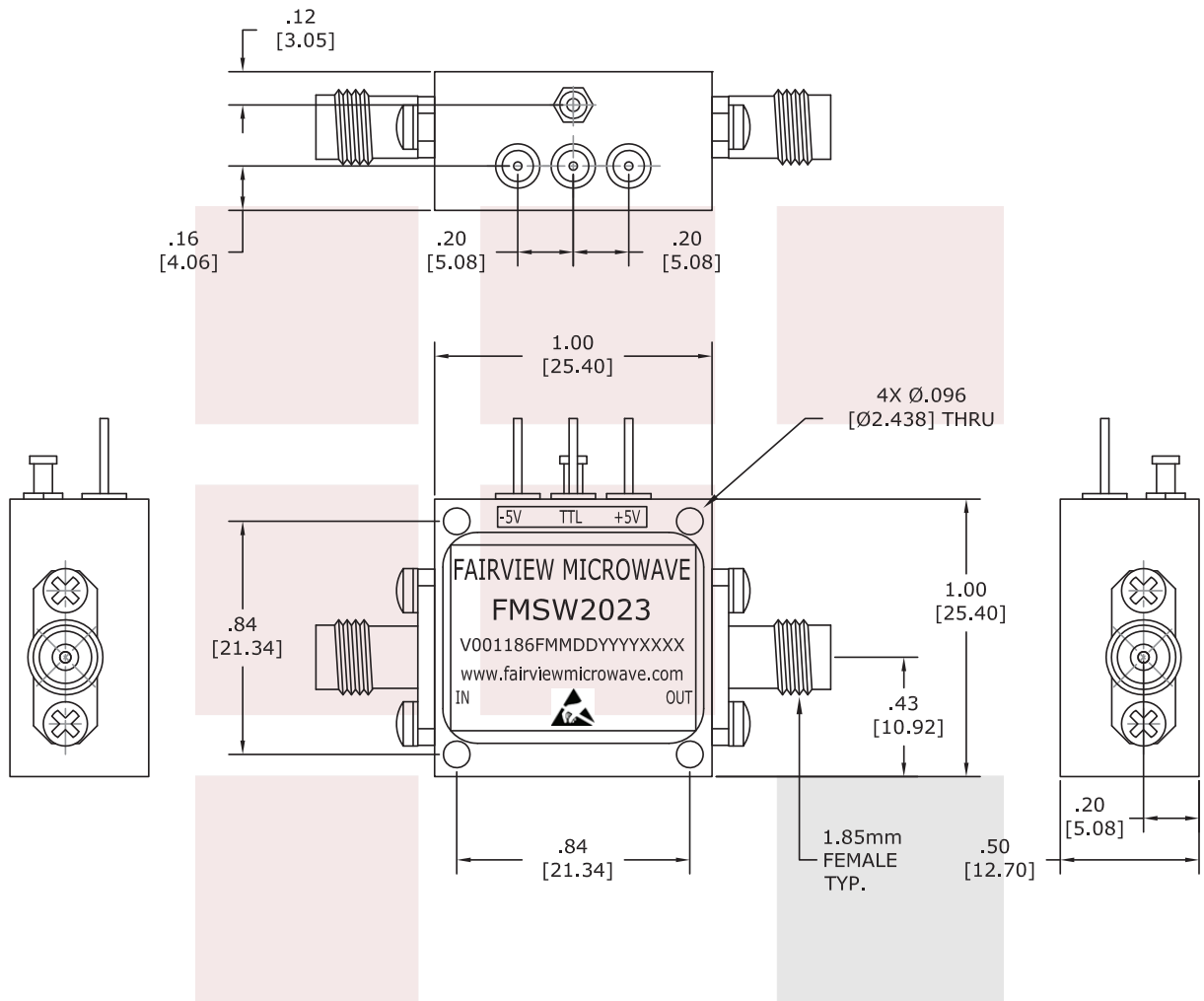


1.85mm SPST PIN Diode Switch From 50 MHz to 67 GHz Rated at +27 dBm from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [1.85mm SPST PIN Diode Switch From 50 MHz to 67 GHz Rated at +27 dBm FMSW2023](#)

URL: <https://www.fairviewmicrowave.com/1.85mm-spst-pin-diode-switch-67-ghz-27-dbm-fmsw2023-p.aspx>

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN: inches  
TOLERANCES ARE: [mm]  
.XX ± .01 [±.25]  
.XXX ±.001 [±.025]

\* THESE DIMENSIONS AND TOLERANCES  
SUPERSEDE NOTE #1 ON TITLE BLOCK.

<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 1.85mm SPST PIN Diode Switch From 50 MHz to 67 GHz Rated at +27 dBm		DWG NO FMSW2023		CAGE CODE 3FKR5	
CAD FILE	113015	SHEET	SCALE	N/A	SIZE A 2233