

SMA High Power PIN Diode Switch Absorptive From 20 MHz to 6000 MHz Rated at +26 dBm Hot Switching

The FMSW8009 is a Single Pole Double Throw (SPDT) Absorptive High Power PIN Diode Switch that operates over the frequency range of 20 MHz to 6 GHz. The 50 ohm absorptive design supports TTL control logic and is rated for hot switching up to +26 dBm average power. Impressive typical performance includes 1.75 dB insertion loss, 70 dB isolation, 4 microsecond switching speed, and 1.3:1 VSWR. Operating voltage is +5 Vdc @ 10 mA nominal. The rugged Mil Grade package design supports SMA female connectors, and a 4 pin Molex connector for DC and TTL control logic. A mating Molex connector is included. The operational temperature range is -40°C to +85°C.

Electrical Specifications

TTL Control

Off/Isolation: 0 to 8 V COM-J2 & J1 Terminated
 On/Low Loss: 2 to 5 V COM-J1 & J2 Terminated

Description	Min	Typ	Max	Units
Frequency Range	0.02		6	GHz
Impedance		50		Ohms
VSWR		1.3:1	1.8:1	
Insertion Loss		1.75	2.5	dB
Isolation	55	70		dB
Positive Operating Voltage		5		Vdc
Current @ 5 Vdc		10		mA
Operating Temperature	-40		+85	deg C

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.02 to 2	2 to 4	4 to 6			GHz
VSWR, Typ	1.25:1	1.5:1	1.5:1			
Insertion Loss, Typ	1.25	1.25	1.75			dB
Isolation, Min	75	70	65			dB
Isolation, Typ	75	70	65			dB

Electrical Specification Notes:

*Switching Speed: 50% TTL to 10% or 90% RF

Description	Min	Typ	Max	Units
Average Power, Hot Switching			26	Watts
Switching Time* (On-Off)		2	10	usec
(Off-On)		5	10	usec

Mechanical Specifications



Features:

- Single Pole Double Throw (SPDT) High Power PIN Diode Switch
- Frequency Range 20 MHz to 6 GHz
- Absorptive Design
- TTL Control Logic
- Hot Switching up to +26 dBm Average Power
- Insertion Loss 1.75 dB typ
- Isolation 70 dB typ
- VSWR 1.3:1 typ
- Switching Speed 4 microseconds typ
- Operating Voltage +5 Vdc @ 10 mA typ
- 50 Ohm Design
- -40°C to +85°C Operating Temperature
- SMA Female Connectors
- 4 Pin Molex Socket Connector for DC and TTL Control
- Rugged Mil Grade Package Design

Applications:

- Military & Commercial Communication Systems
- Microwave Radio Systems
- Radar Systems
- Test & Measurement
- Research & Development
- RF Wideband Front Ends

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Weight	0.15 lbs [68.04 g]
Design	Absorptive, SPDT
RF Connector	SMA Female
Control Connector	Solder Pin

Environmental Specifications

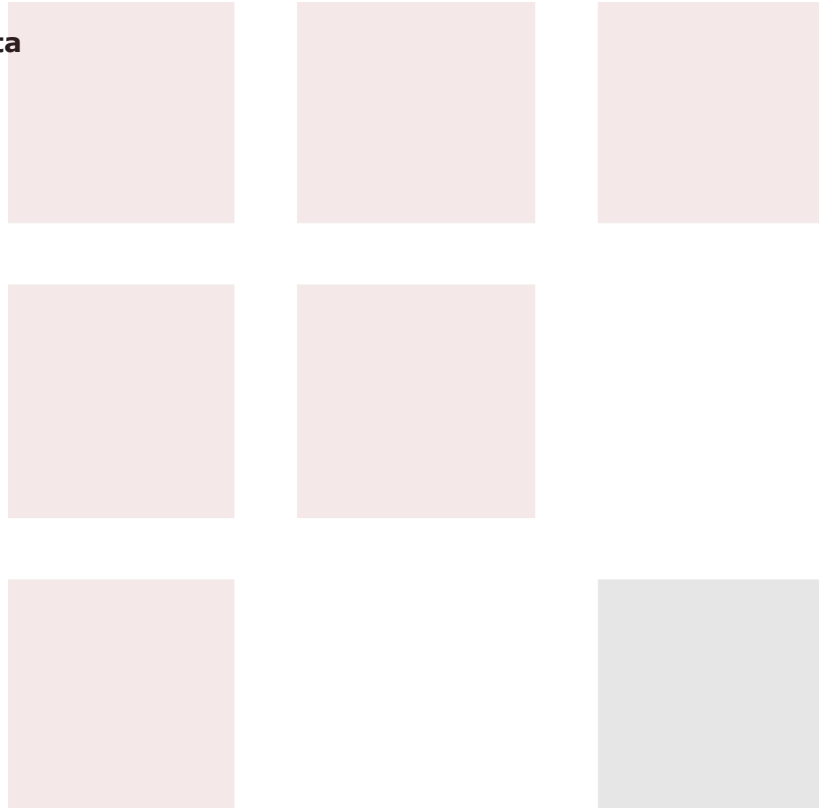
Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +90 deg C

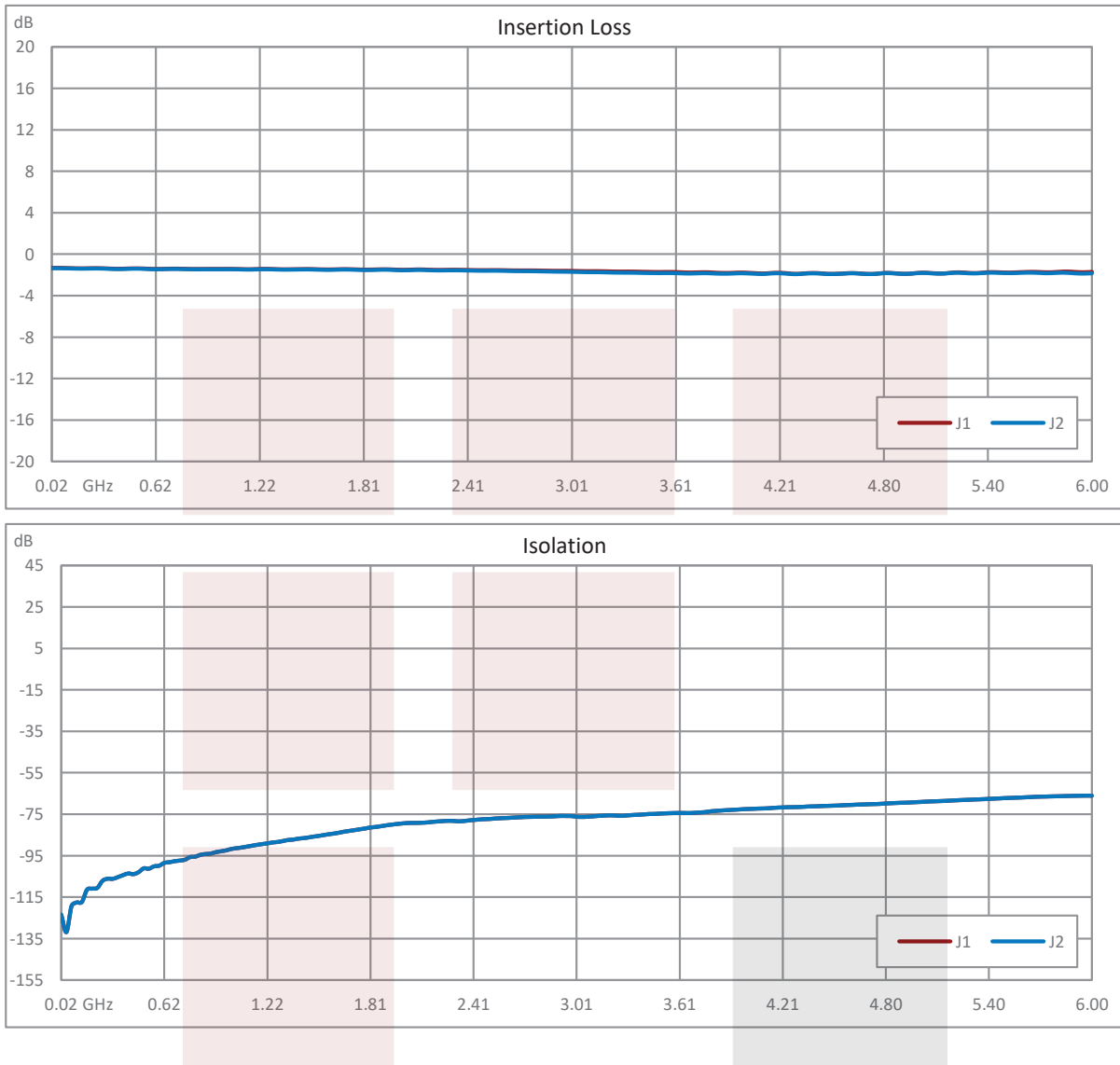
Compliance Certifications (see [product page](#) for current document)

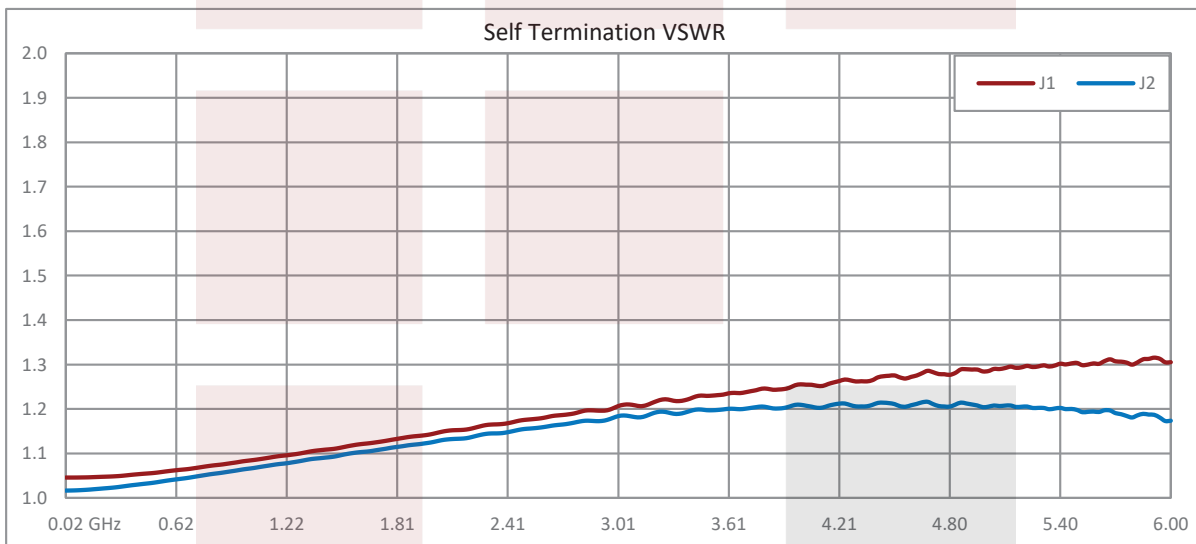
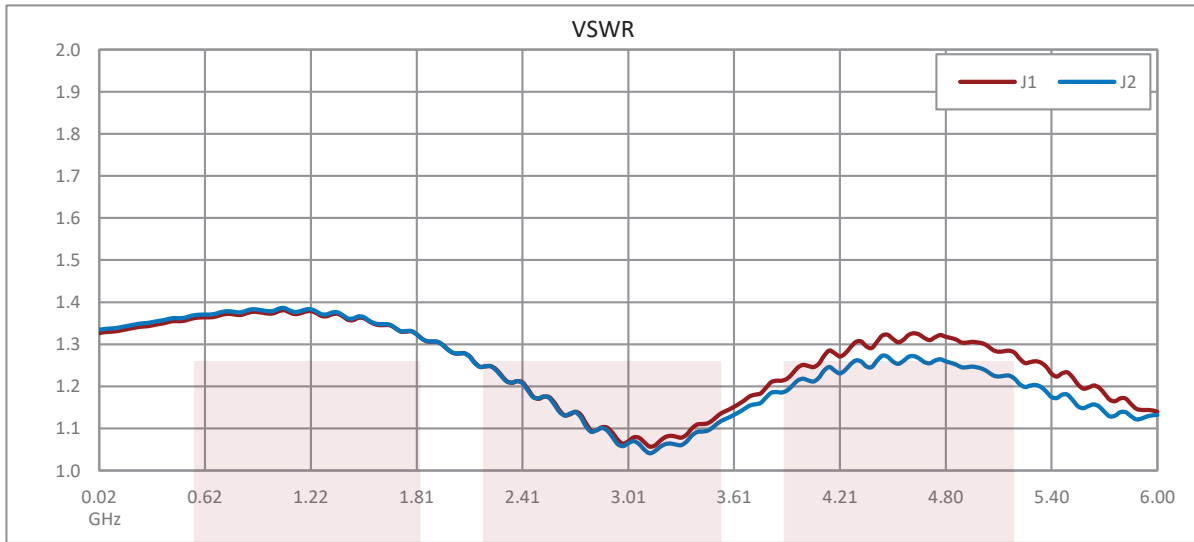
Plotted and Other Data

Notes:



Typical Performance Data





SMA High Power PIN Diode Switch Absorptive From 20 MHz to 6000 MHz Rated at +26 dBm Hot Switching 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 High Power PIN Diode Switch Absorptive From 20 MHz to 6000 MHz Rated at +26 dBm Hot Switching FMSW8009](https://www.fairviewmicrowave.com/sma-high-power-pin-diode-switch-absorptive-from-20-mhz-to-6000-mhz-rated-at-26-dbm-hot-switching-fmsw8009)

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