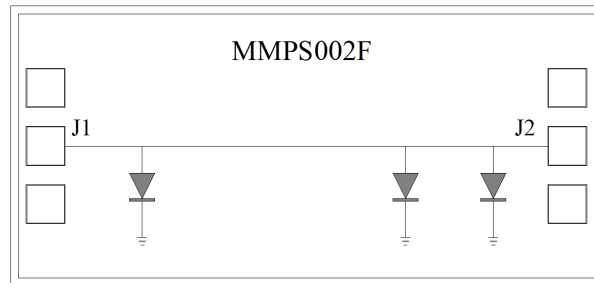


Features

- PIN Diode SPST Reflective design
- Frequency:0.1-40GHz
- Isolation: 40dB Typical
- Insertion Loss: 1.0dB Typical
- Control Voltage:+5/-5V
- Switching Speed:10ns Typical
- Die Size: 1.54 x 0.725 x 0.1 mm

Functional Block Diagram



Typical Applications

- Voltage control
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

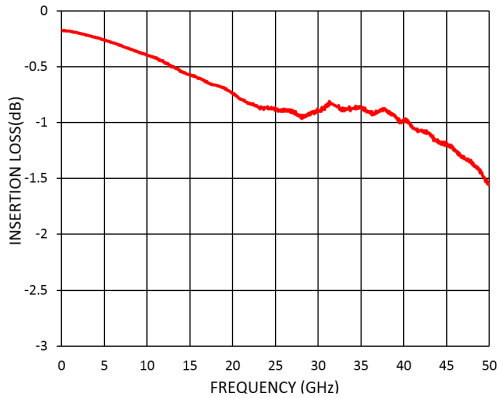
Electrical Specifications

TA = +25°C, VCTL=+5/-5V , ±10 mA Typical

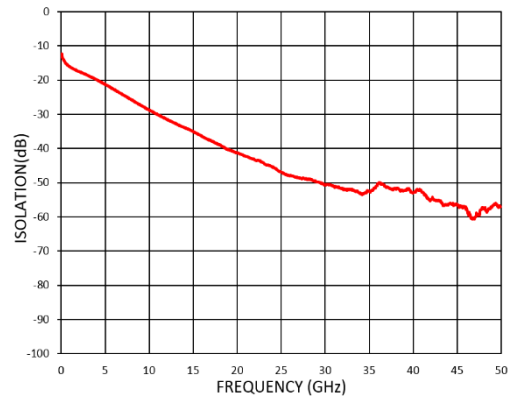
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	0.1		18	18		40	GHz
Insertion Loss		0.7	0.9		1.0	1.5	dB
Isolation		30			45		dB
Input Return Loss		-15			-12		dB
Output Return Loss		-15			-12		dB
P1dB - Output 1dB Compression		32			30		dBm
IIP3-Input Third Order Intercept		45			40		dBm
Switching Speed		10			10		ns



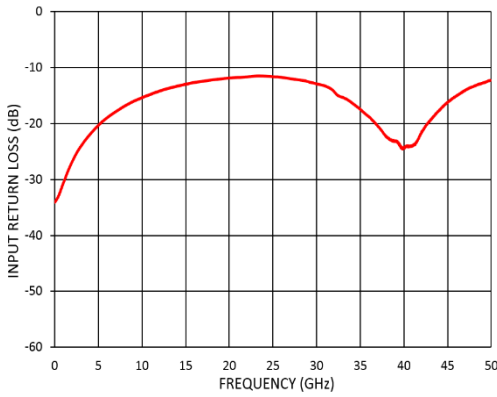
Insertion Loss vs. Frequency



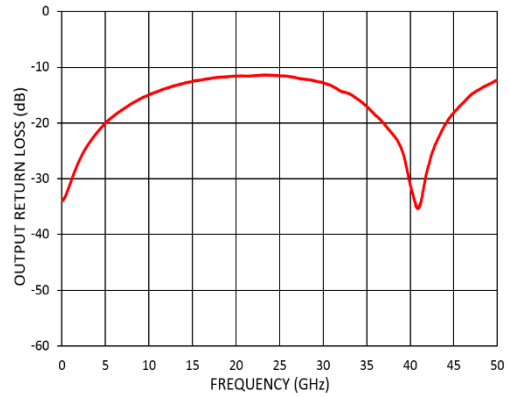
Isolation vs. Frequency



RL-On vs. Frequency



RL-On vs. Frequency



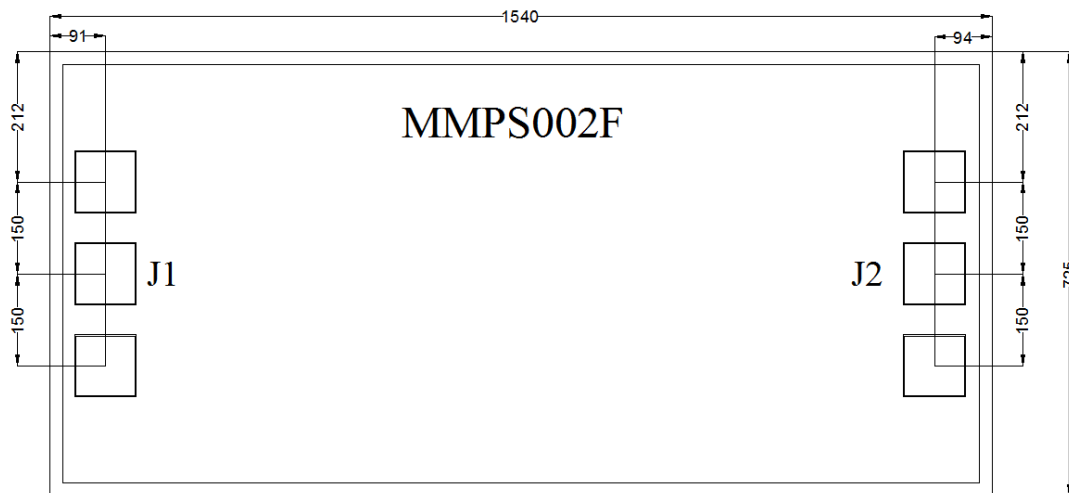
Absolute Maximum Ratings

Max Incident C.W. RF Power	+36dBm
DC Reverse Voltage	25V
Bias Current	±50 mA
Operating Temperature	-55°C to +85 °C
Storage Temperature	-65°C to +150 °C



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Outline Drawing:
All Dimensions in μm



True Table

Control Voltage	State
J2	J2→J1
-5V	ON
+5V	OFF



Assembly Drawing



Notes:

1. Die thickness: 100 μ m
2. Typical bond pad is 100*100 μ m²
3. Bond pad metallization: Gold
4. Backside metallization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Item	Description
C1	0.1 μ F Capacitor Example: Passiveplus Part:0402BB104KW500
L1	0.84 μ H Inductance Example: Piconics Part: CC45T47K240G5
R1	200 Ω Resistor Example: YAGEO Part: RC0402FR-07200RL
C2	39pF Capacitor Example: Skyworks Part: SC10002430

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