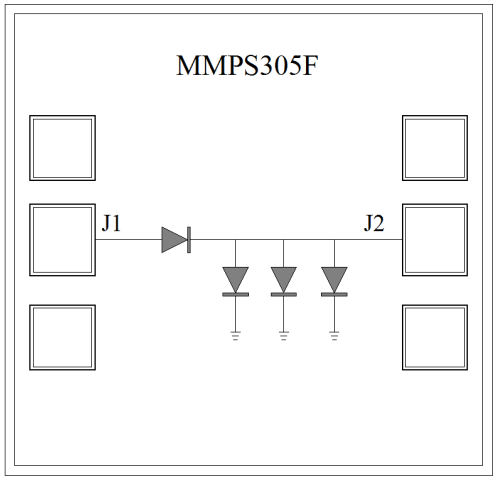
Features

- PIN Diode SPST Reflective design
- Frequency:0.05-50GHz
- Isolation: 45dB Typical
- Insertion Loss: 0.8dB Typical
- Control Voltage:+5/-5V
- Switching Speed: 10ns Typical
- Die Size: 0.750 x 0.725 x 0.1 mm

Functional Block Diagram



Typical Applications

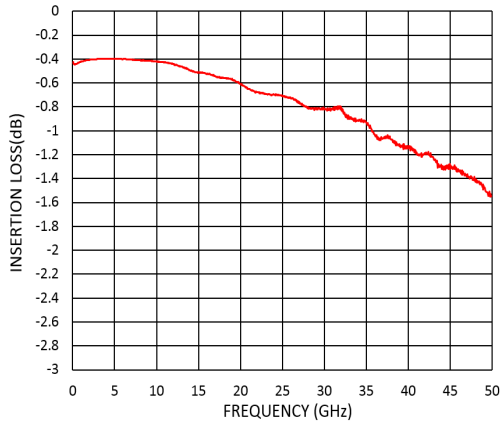
- Voltage control
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications

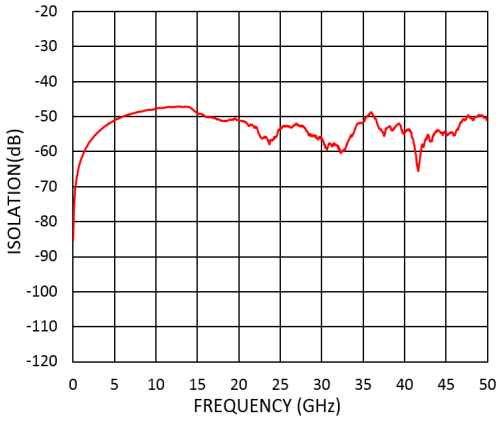
TA = +25°C, VCTL=+5/-5V , ±10 mA Typical

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	0.05		26.5	26.5		50	GHz
Insertion Loss		0.8	1.0		1.5	1.8	dB
Isolation		45			48		dB
Input Return Loss		-20			-12		dB
Output Return Loss		-20			-12		dB
P1dB - Output 1dB Compression		30			28		dBm
IIP3-Input Third Order Intercept		43			40		dBm
Switching Speed		10			10		ns

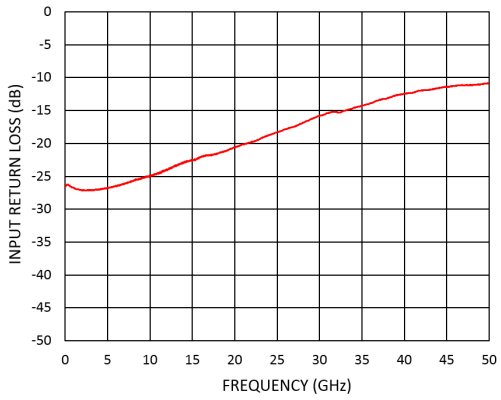
Insertion Loss vs. Frequency



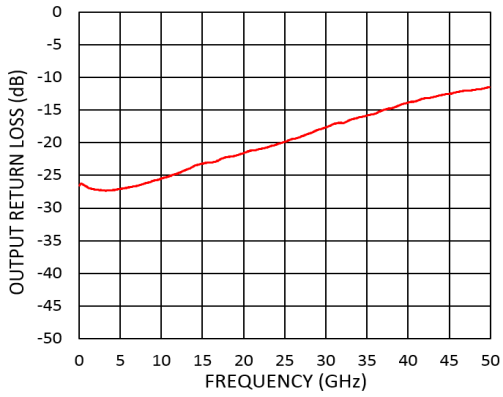
Isolation vs. Frequency



RL-On vs. Frequency



RL-On vs. Frequency

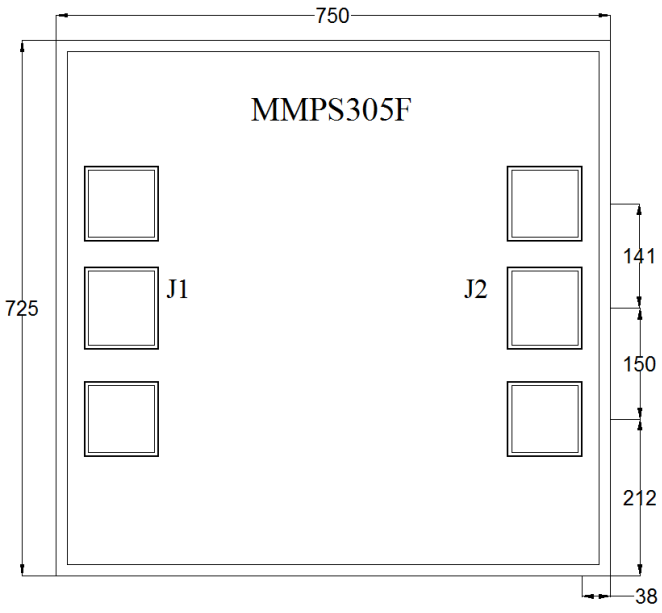


Absolute Maximum Ratings

Max Incident C.W. RF Power	+33dBm
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

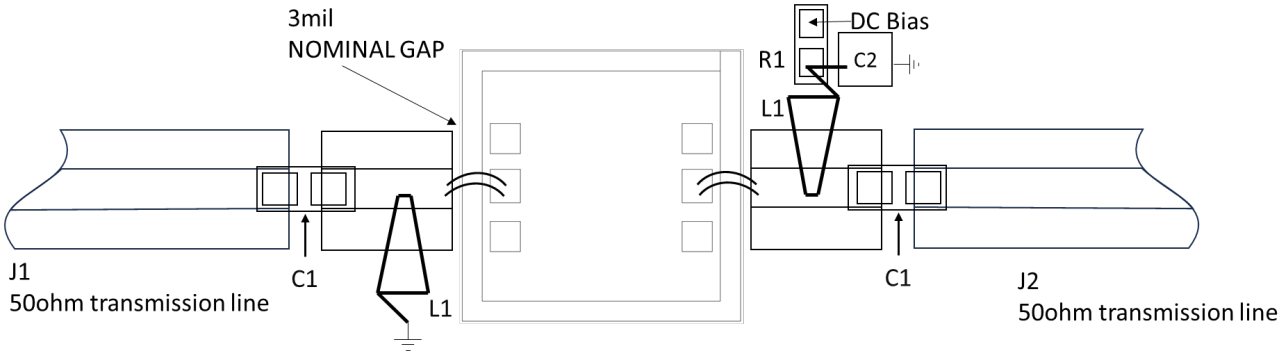
Outline Drawing:
All Dimensions in µm



True Table

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

Assembly Drawing



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

Notes:

1. **Die thickness: 100μm**
2. **Typical bond pad is 100*100μm²**
3. **Bond pad mentalization: Gold**
4. **Backside metallization: Gold**
5. **Backside of the die (GND)**
6. **No connection required for unlabeled bond pads**