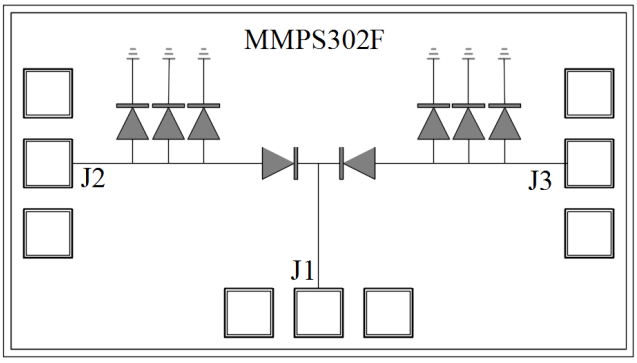
Features

- PIN Diode SP2T Reflective design
- Frequency:0.05-50GHz
- Isolation: 45dB Typical
- Insertion Loss: 0.9 dB Typical
- Control Voltage:+5/-5V
- Switching Speed: 10ns Typical
- Die Size: 1.3 x 0.725 x 0.1 mm

Functional Block Diagram



Typical Applications

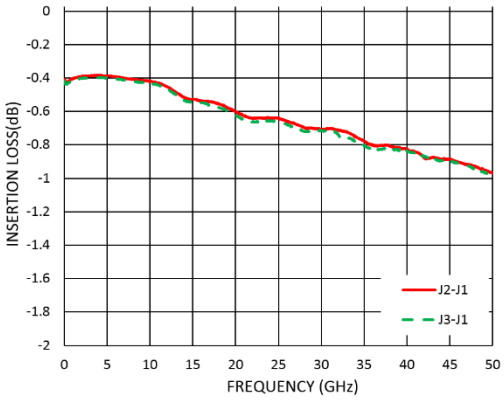
- Voltage control
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications

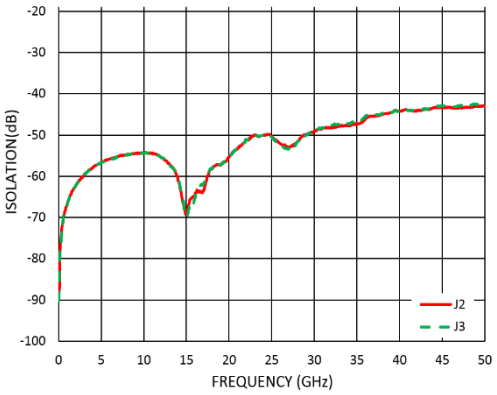
TA = +25°C, VCTL=+5/-5V , ±10 mA Typical

Parameters	Min.	Typ.	Max.	Units
Frequency	0.05		50	GHz
Insertion Loss		0.9	1.2	dB
Isolation	35	45		dB
Input Return Loss (ON State)		16		dB
Output Return Loss (OFF State)		16		dB
P1dB - Output 1dB Compression		27		dBm
IIP3-Input Third Order Intercept		40		dBm
Switching Speed		10		ns

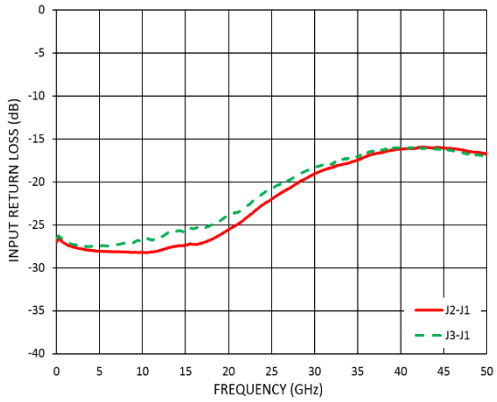
Insertion Loss vs. Frequency



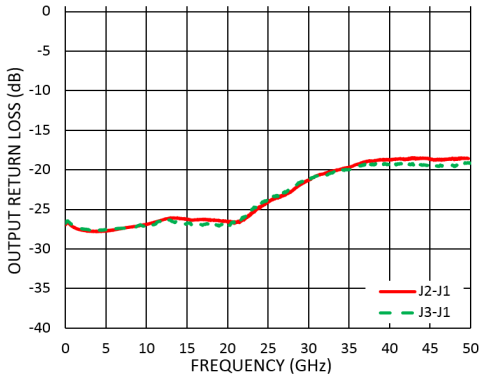
Isolation vs. Frequency



Input Return Loss vs. Frequency



Output Return Loss vs. Frequency



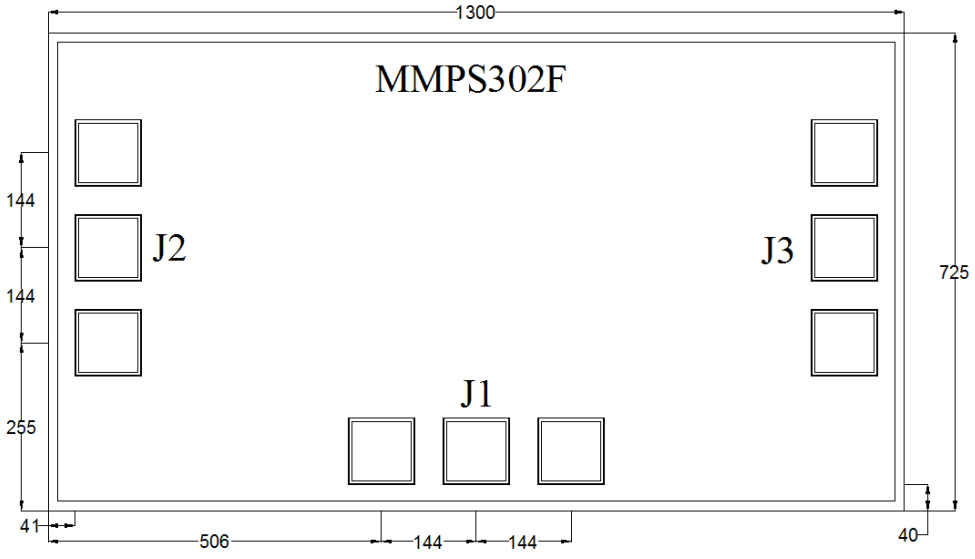
Absolute Maximum Ratings

Max Incident C.W. RF Power	+31dBm
DC Reverse Voltage	25V
Bias Current	±50 mA
Operating Temperature	-55°C to +85 °C
Storage Temperature	-55°C to +150 °C

ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Outline Drawing:

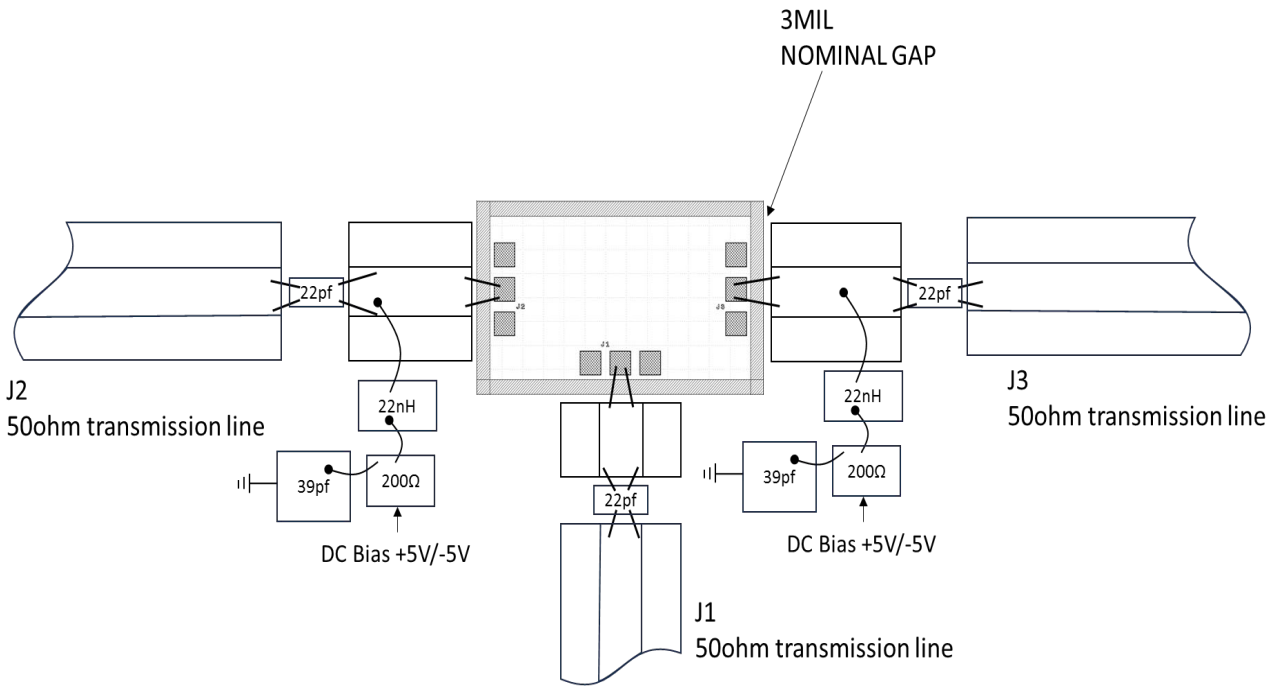
All Dimensions in µm



True Table

Control Voltage		State	
J2	J3	J2→J1	J3→J1
-5V	+5V	ON	OFF
+5V	-5V	OFF	ON

Assembly Drawing



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**