

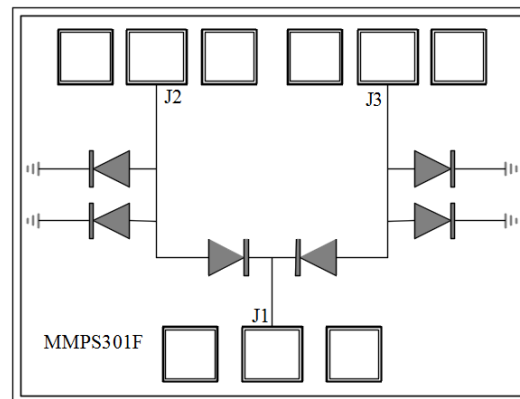
### Features

- PIN Diode SP2T Reflective design
- Frequency: 0.05-26.5GHz
- Isolation: 40dB Typical
- Insertion Loss: 0.8 dB Typical
- Control Voltage: +5/-5V
- Switching Speed: 10 ns Typical
- Die Size: 0.95 x 0.725 x 0.1 mm

### Typical Applications

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

### Functional Block Diagram



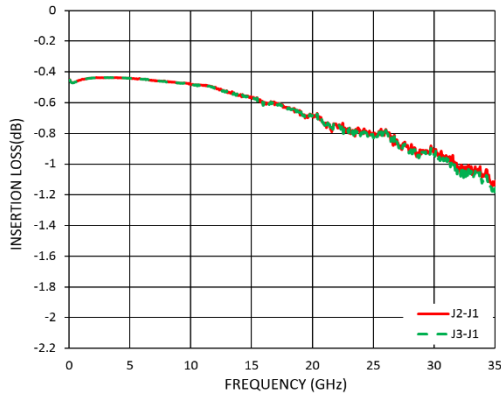
### Electrical Specifications

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

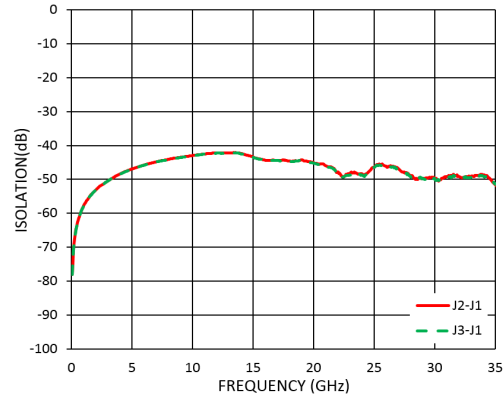
Parameters	Min.	Typ.	Max.	Units
Frequency	0.05		26.5	GHz
Insertion Loss		0.8	1.0	dB
Isolation	35	40		dB
Input Return Loss (ON State)		15		dB
Output Return Loss (OFF State)		22		dB
P1dB - Output 1dB Compression		28		dBm
IIP3-Input Third Order Intercept		43		dBm
Switching Speed		10		ns



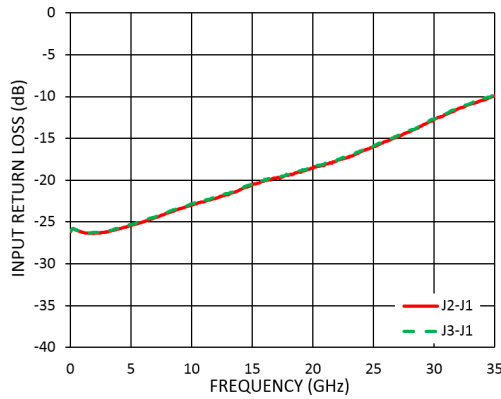
### Insertion Loss vs. Frequency



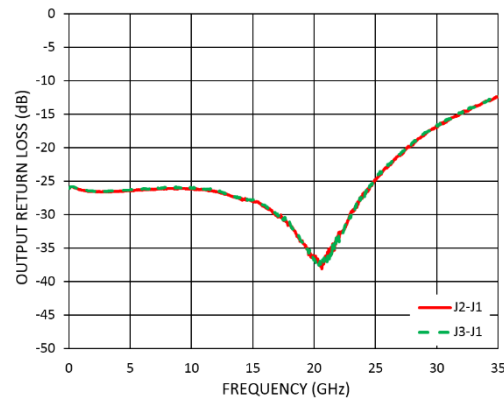
### Isolation vs. Frequency



### RL-On vs. Frequency



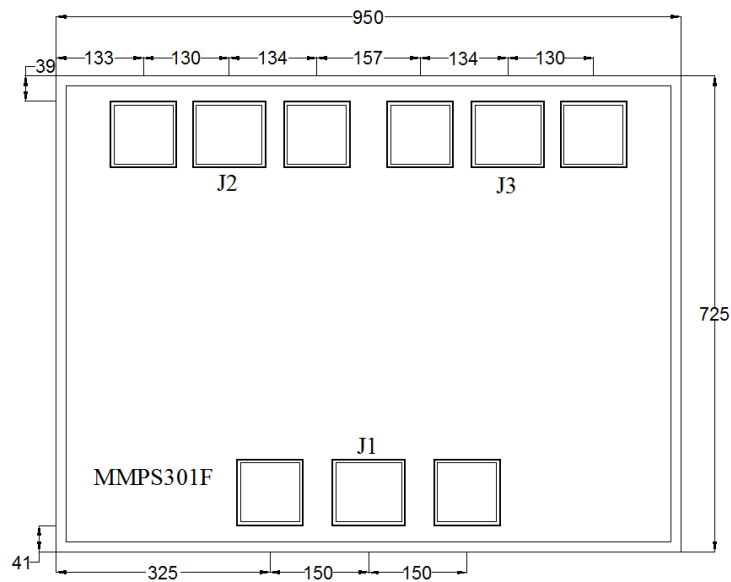
### RL-Off vs. Frequency



**Absolute Maximum Ratings**

Max Incident C.W. RF Power	<b>+31dBm</b>
DC Reverse Voltage	<b>25V</b>
Bias Current	<b>±50 mA</b>
Operating Temperature	<b>-55°C to +85 °C</b>
Storage Temperature	<b>-65°C to +150 °C</b>

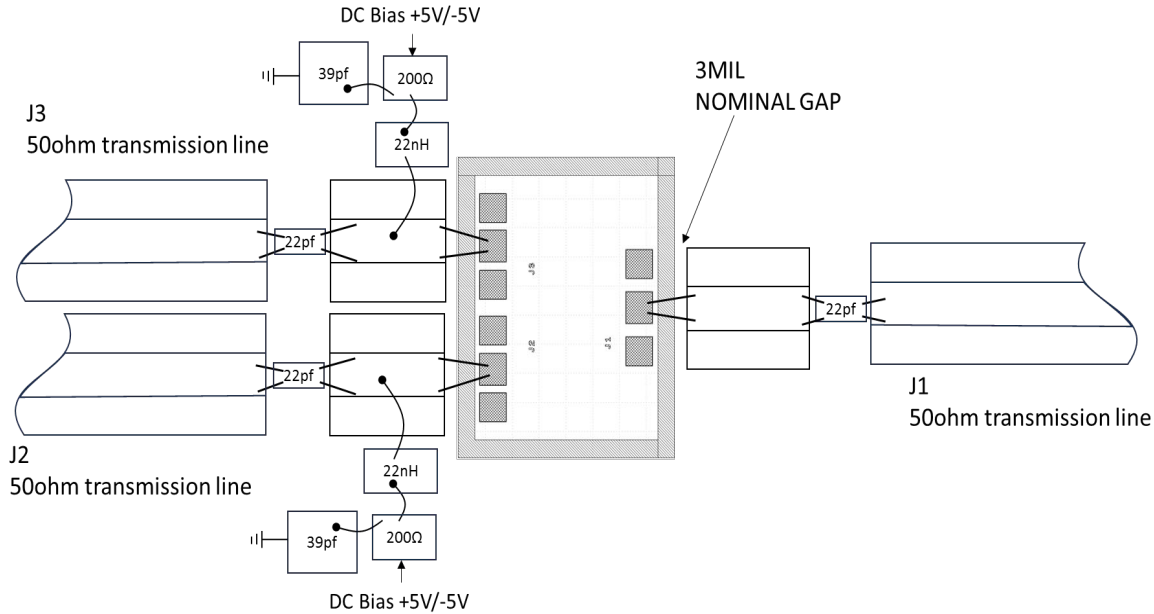

 ELECTROSTATIC SENSITIVE DEVICE  
OBSERVE HANDLING PRECAUTIONS

**Outline Drawing:**  
All Dimensions in  $\mu\text{m}$ 

**True Table**

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



### Assembly Drawing



#### Notes:

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

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