

Features

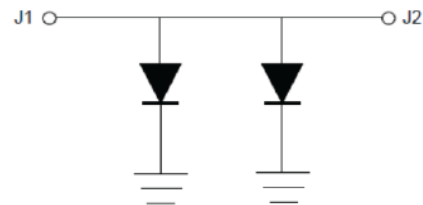
- Frequency: 0.05-50GHz
- Insertion Loss: 0.5dB typ.
- Isolation: 35dB typ.
- P-1dB: 30dBm
- Input/Output: 50Ω
- Die Size: 1.33 x 0.82 x 0.1 mm

Typical Applications

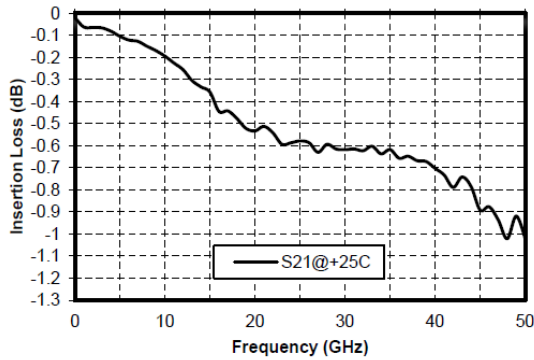
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications
TA = +25°C

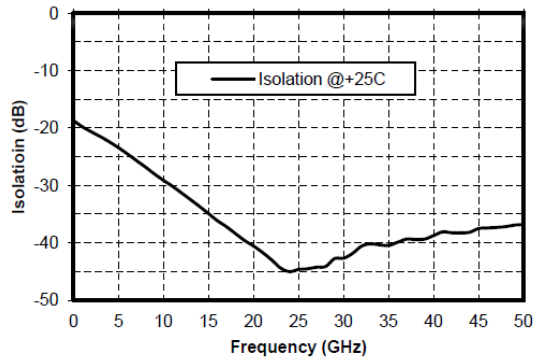
Parameters	Min.	Typ.	Max.	Units
Frequency Range	0.05-18			GHz
Insertion Loss	-	0.3	0.5	dB
Isolation	18	28	-	dB
Input Return Loss	12	21	-	dB
Output Return Loss	14	22	-	dB
Frequency Range	18-50			GHz
Insertion Loss	-	0.5	1.0	dB
Isolation	36	40	-	dB
Input Return Loss	12	15	-	dB
Output Return Loss	13	16	-	dB
P-1dB	-	30	-	dBm
Switching Speed	-	10	-	ns

Functional Block Diagram


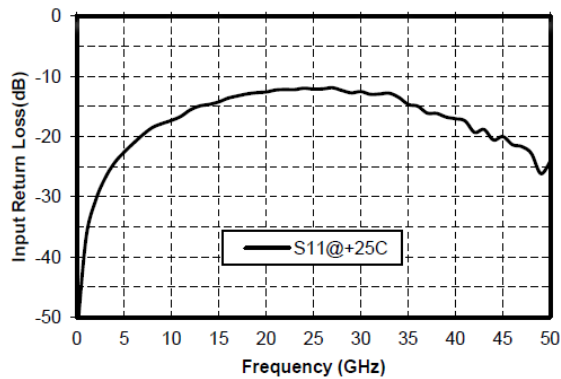
Insertion Loss vs. Operating Frequency



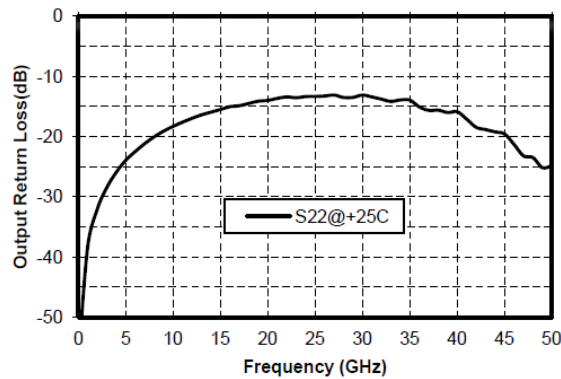
Isolation vs. Operating Frequency



Input Return Loss vs. Operating Frequency



Output Return Loss vs. Operating Frequency



Typical Driver Connections

CONTROL LEVEL (DC CURRENT)	RF OUTPUT STATE
J1 or J2	J1-J2
-5V	Low Loss
+10mA	Isolation



Outline Drawing

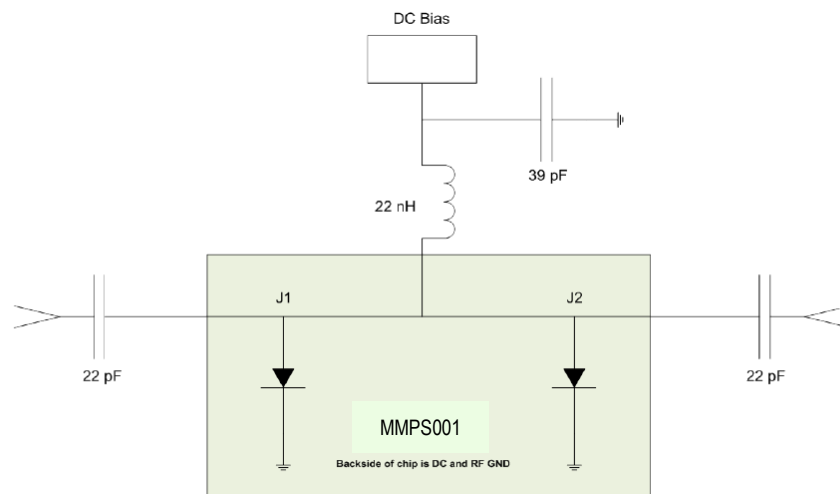
All Dimensions in μm



Pad Description

Pad	Function	Description
1	J1	RF signal port.
2	J2	RF signal port.
Die bottom	GND	Die bottom must be connected to RF/DC ground.

Assembly Drawing



Notes:

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

Maximum Ratings:

1. Maximum input voltage: 25V
2. Maximum input power: +36dBm CW
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C