# **MMPN080x Series**

### **PIN Diodes**

#### Features

- High Isolation
- Broadband Performance up to 50 GHz

#### Description

The MMPN series are distributed PIN diodes that are integrated into a 50  $\Omega$  microstrip transmission line. These PIN diodes are designed to be operated as shunt, reflective attenuators.

### **Electrical Specifications:** $T_A = +25^{\circ}C$

Model	Frequency (GHz)	Maximum Reversed Current (nA)	Minimum Breakdown Voltage (V)	Maximum Insertion Loss (dB)	Minimum Return Loss (dB)	Minimum Isolation (dB)	Outline
MMPN080045	2 - 20	100	200	1	12	30	C50
MMPN080150	2 - 35	200	200	3	12	50	C51
Test Conditions		V <sub>R</sub> = 30 V	I <sub>R</sub> = 10 μΑ	$V_R = 0 V$	$V_R = 0 V$	I <sub>F</sub> = 40 mA	

C50

C51

#### **Absolute Maximum Ratings**

Parameter	Absolute Maximum		
Reverse Voltage	200 V		
Forward Current	150 mA		
Thermal Resistance	60°CW		
Junction Temperature	+175°C		
Storage Temperature	-65°C to +200°C		
Mounting / Bonding Temperature	+320°C for 10 seconds		

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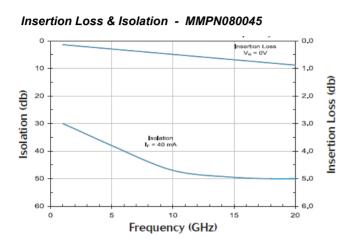
Rev. V2

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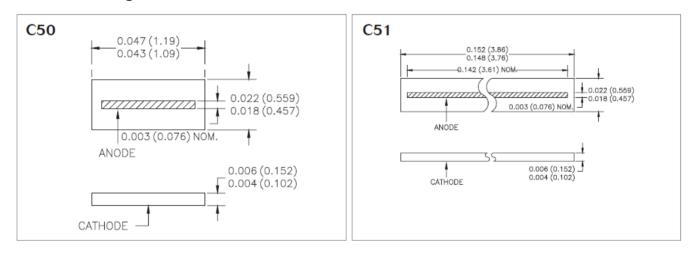
#### **PIN Diodes**

### Typical RF Performance Curves @ +25°C



#### Insertion Loss & Isolation - MMPN080150 0 0.0 10 1.0 Insertion Loss V<sub>R</sub> = 0V 2.0 20 (qp) Isolation (db) 30 3.0 Insertion Loss 40 4.0 50 5.0 60 6.0 Isolation 7.0 70 80 8.0 90 9.0 0 10 20 30 40 Frequency (GHz)

#### **Outline Drawings**



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Rev. V2

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