MMP7066-11

Rev. V2

Features

- Low Series Resistance
- Low Junction Capacitance
- I-Layer Thickness: W = 70 µm

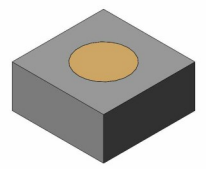
Applications

- ISM

Description

The MMP7066-11 silicon PIN diode is an unpackaged die suitable for use in attenuator, switch or high-power limiter applications. It is manufactured using a proven diode manufacturing process for high reliability and uniformity. The very low thermal resistance (typically less than 20ºC/W) of this device enables it to reliably handle large RF power levels.

The low series resistance and the junction capacitance of the diode combine to produce excellent isolation and insertion loss.



CS11

Ordering Information

Part Number	Package
MMP7066-11	400 piece waffle pack

Electrical Specifications: T_A = +25°C

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Voltage Rating	I_R = 10 µA	V	500	—	—
Forward Voltage	I_F = 100 mA	V	—	—	1.1
Series Resistance[1]	I_F = 1 mA, 100 MHz I_F = 10 mA, 100 MHz I_F = 100 mA, 100 MHz	Ω	—	—	23.0 5.0 1.2
Junction Capacitance	V_R = 100 V, 1 MHz	pF	—	—	0.1
Minority Carrier Lifetime	I_F = 10 mA, I_R = 6 mA, 50% Recovery	ns	—	850	—
I Layer Thickness	—	µm	—	70	—

1. Measured using the HP 4291 Impedance Analyzer.

* Restrictions on Hazardous Substances, compliant to current RoHS EU directive.

Absolute Maximum Ratings

Parameter	Absolute Maximum
Forward DC Current	150 mA
Reverse DC Voltage	500 V
Thermal Resistance	Junction to Case = 25°C/W
Junction Temperature	+175°C
Operating Temperature	-65°C to +150°C
Storage Temperature	-65°C to +150°C
Assembly Temperature	+285°C, t = 10 s

Handling Procedures

Please observe the following precautions to avoid damage:

Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these Class 1A (HBM) devices.

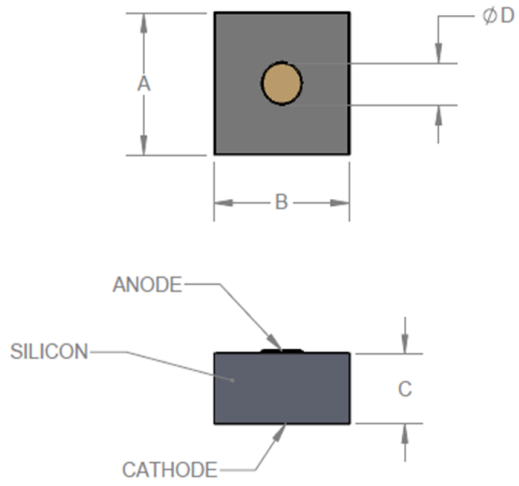
Environmental Capabilities

This diode is capable of meeting the environmental requirements of MIL-STD-750.

Assembly Instructions

Die attach of MMP7066-11 silicon PIN diode chips may be accomplished with conductive epoxy or a eutectic solder such as Au(80%)/Sn(20%). Electrical connection to the anode may be made with a Au wire or ribbon, utilizing thermo compression or thermosonic bonding. Care should be exercised to not employ excessive pressure or ultrasonic energy while wire/ribbon bonding to avoid physical damage to the die.

Outline Drawing - CS11



Dimensions (inches)

Dimension	Min.	Nom.	Max.
A	0.015	0.017	0.020
B	0.015	0.017	0.020
C	0.009	0.010	0.011
D	—	0.008	—