

Surface Mount PIN Diodes in SOT-323 (SC-70 3-Lead)

Technical Data

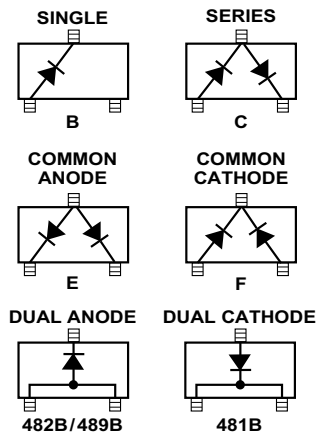
HSMP-381B/C/E/F
HSMP-386B/C/E/F
HSMP-389B/C/E/F
HSMP-481B, -482B, -489B

Features

- **Diodes Optimized for:**
 Low Current Switching
 Low Distortion Attenuating
 Ultra-Low Distortion Switching
 Microwave Frequency
 Operation
- **Surface Mount SOT-323 (SC-70) Package**
 Single and Pair Versions
 Tape and Reel Options
 Available
- **Low Failure in Time (FIT) Rate***

* For more information see the Surface Mount PIN Reliability Data Sheet.

Package Lead Code Identification (Top View)



Description/Applications

The HSMP-381B/C/E/F series is specifically designed for low distortion attenuator applications. The HSMP-386B/C/E/F series is a general purpose PIN diode designed for low current attenuators and low cost switches. The HSMP-389B/C/E/F series is optimized for switching applications where low resistance at low current, and low capacitance are required.

The HSMP-48XB series is special products featuring ultra low parasitic inductance in the SOT-323 package, specifically designed for use at frequencies which are much higher than the upper limit for conventional SOT-323 PIN diodes. The HSMP-481B diode is a low distortion attenuating PIN diode designed for operation to 3 GHz. The HSMP-482B diode is ideal for limiting and low inductance switching applications up to 1.5 GHz. The HSMP-489B is optimized for low current switching applications up to 3 GHz.

Absolute Maximum Ratings^[1], $T_C = + 25^\circ\text{C}$

Symbol	Parameter	Unit	Absolute Maximum
I_f	Forward Current (1 μs Pulse)	Amp	1
P_{iv}	Peak Inverse Voltage	V	Same as V_{BR}
T_j	Junction Temperature	$^\circ\text{C}$	150
T_{STG}	Storage Temperature	$^\circ\text{C}$	-65 to 150
θ_{jc}	Thermal Resistance ^[2]	$^\circ\text{C}/\text{W}$	300

Notes:

1. Operation in excess of any one of these conditions may result in permanent damage to the device.
2. $T_C = 25^\circ\text{C}$, where T_C is defined to be the temperature at the package pins where contact is made to the circuit board.