NSVP249SDSF3

PIN Diode
Dual series PIN Diode for VHF, UHF and AGC

ON Semiconductor®

www.onsemi.com

50 V, 50 mA
r_s = 4.5 Ω max
PIN Diode

This PIN diode is designed to realize compact and efficient designs. Two PIN diodes are incorporated in one SC−70 package. The use of dual PIN diodes can reduce both system cost and board space. This PIN diode is AEC−Q101 qualified and PPAP capable for automotive applications.

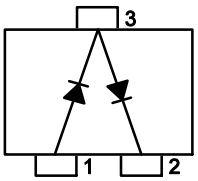
Features

- Series connection of 2 elements in a small−size package
- Small Interterminal Capacitance (C = 0.23 pF typ)
- Small Forward Series Resistance (rs = 4.5 Ω max)
- AEC−Q101 qualified and PPAP capable
- Pb−Free, Halogen Free and RoHS Compliance

Typical Applications

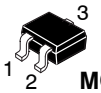
- Auto Gain Control for Radio

ELECTRICAL CONECTION

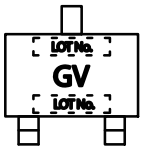


1 : Anode
2 : Cathode
3 : Cathode / Anode

MARKING DIAGRAM



MCP3
CASE 419 AJ



ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet

SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS at T_A = 25°C

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	50	V
I_F	Forward Current	50	mA
P	Allowable Power Dissipation	100	mW
T_J, T_{stg}	Operating Junction and Storage Temperature	−55 to +125	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS at T_A = 25°C (Note 1)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_R	Reverse Voltage	I_R = 10 μA	50	–	–	V
I_R	Reverse Current	V_R = 50 V	–	–	0.1	μA
V_F	Forward Voltage	I_F = 50 mA	–	0.92	–	V
C	Interterminal Capacitance	V_R = 50 V, f = 1 MHz	–	0.23	–	pF
r_s	Series Resistance	I_F = 10 mA, f = 100 MHz	–	–	4.5	Ω

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

1. The specifications shown above are for each individual diode.

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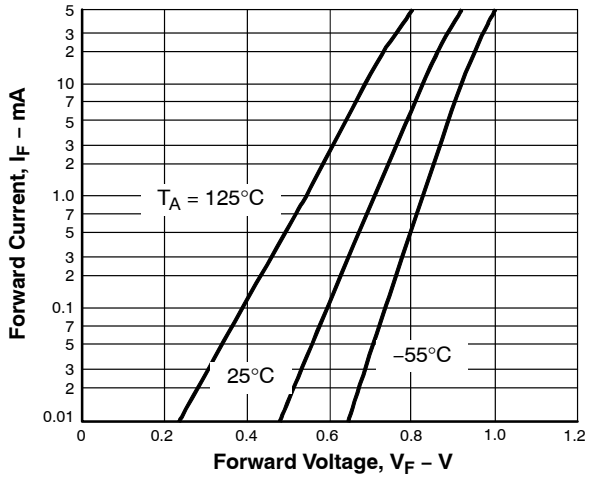


Figure 1. I_F –V_F

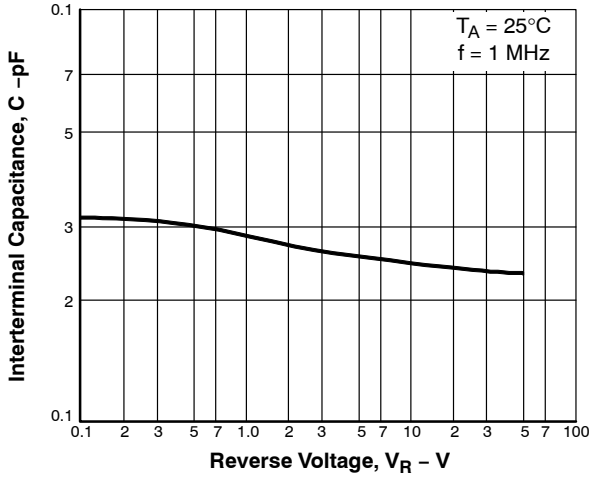


Figure 2. C –V_R

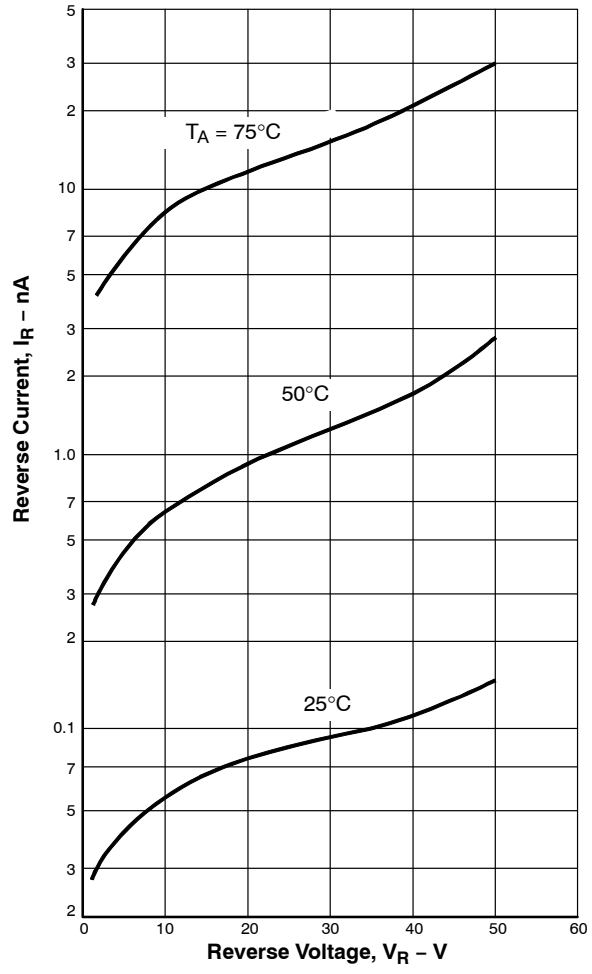


Figure 3. I_R –V_R

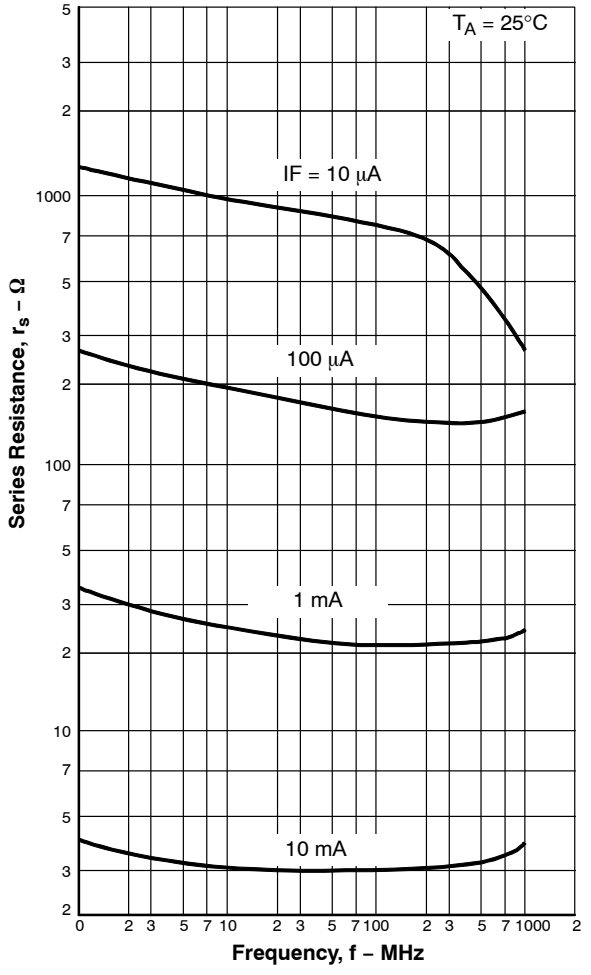


Figure 4. r_s – f

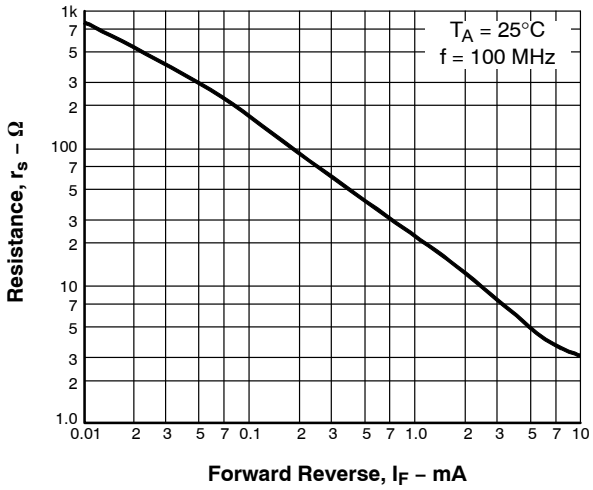


Figure 5. r_s – I_F

ORDERING INFORMATION

Device	Marking	Package	Shipping †
NSVP249SDSF3T1G	GV	SC−70 / MCP3 (Pb−Free / Halogen Free)	3,000 / Tape & Reel

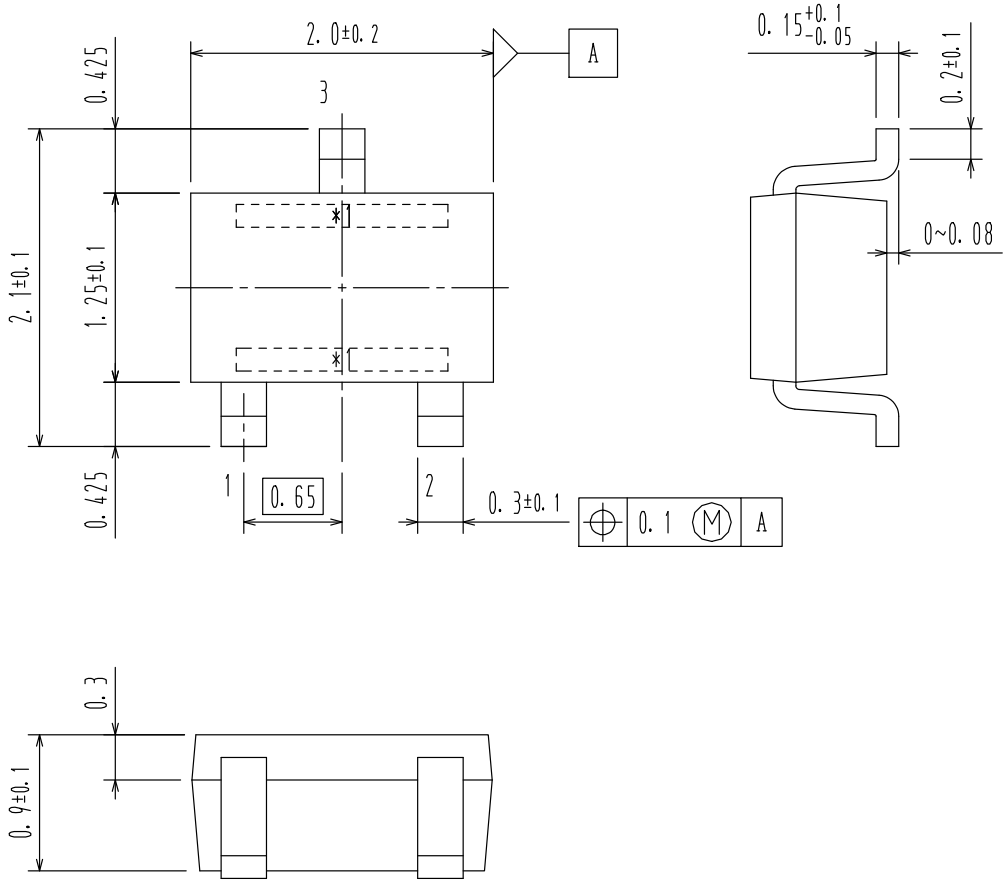
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

ON Semiconductor®

SC−70 / MCP3
CASE 419AJ
ISSUE O

DATE 30 NOV 2011



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