Schottky Barrier Diode for Mixer and Detector

NSVR351SDSA3



SC−59 / CP3
CASE 318BJ

5 V, 30 mA
C = 0.69 pF typ
Shottky Barrier Diode

Description

This schottky barrier diode is designed to realize compact and efficient designs. Two schottky barrier diodes are incorporated in one SC−59 package. The use of dual schottky barrier diodes can reduce both system cost and board space. This schottky barrier diode is AEC−Q101 qualified and PPAP capable for automotive applications.

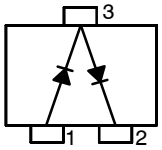
Features

- Series Connection of 2 Elements in a Small−Sized Package
- Small Interterminal Capacitance (C = 0.69 pF typ)
- Small Forward Voltage (V_F = 0.23 V max)
- These Devices are Pb−Free, Halogen Free and are RoHS Compliant
- AEC−Q101 Qualified and PPAP Capable

Typical Applications

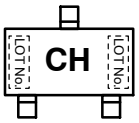
- Level Detector for Radio

ELECTRICAL CONNECTION



1 : Anode
2 : Cathode
3 : Anode / Cathode

MARKING DIAGRAM



ORDERING INFORMATION

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

SPECIFICATIONS ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Symbol	Parameter	Value	Unit
V_{RM}	Reverse Voltage	5	V
I_F	Forward Current	30	mA
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 T_A = 25°C (Note 1)

Symbol	Parameter	Conditions	Value			Unit
			Min	Typ	Max	
V_F	Forward Voltage	I_F = 1 mA	–	–	0.23	V
I_F	Forward Current	V_F = 0.5 V	30	–	–	mA
I_R	Reverse Current	V_R = 0.5 V	–	–	25	μA
C	Interterminal Capacitance	V_R = 0.2 V, f = 1 MHz	–	0.69	0.9	pF

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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CHARACTERISTICS

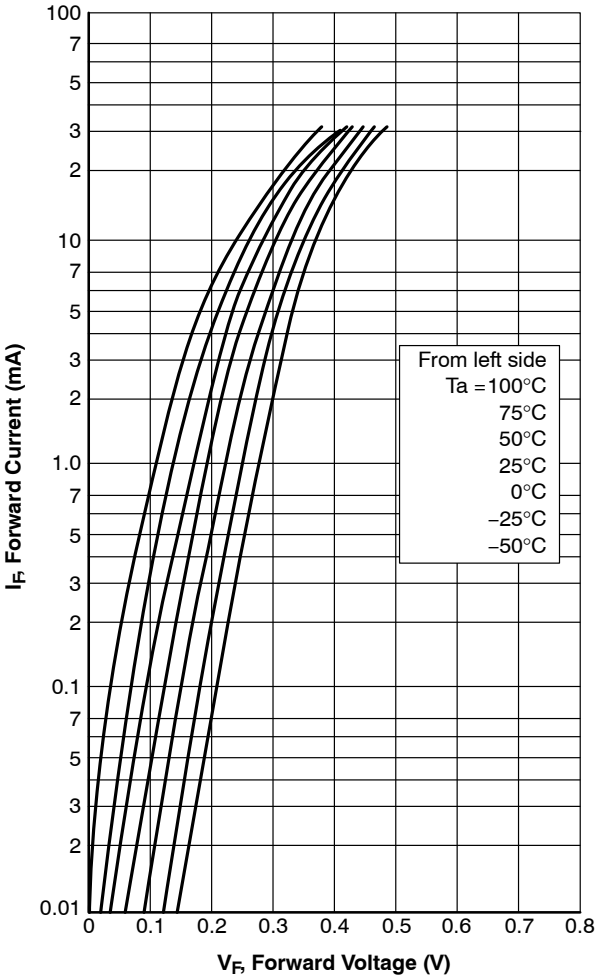


Figure 1. $I_F - V_F$

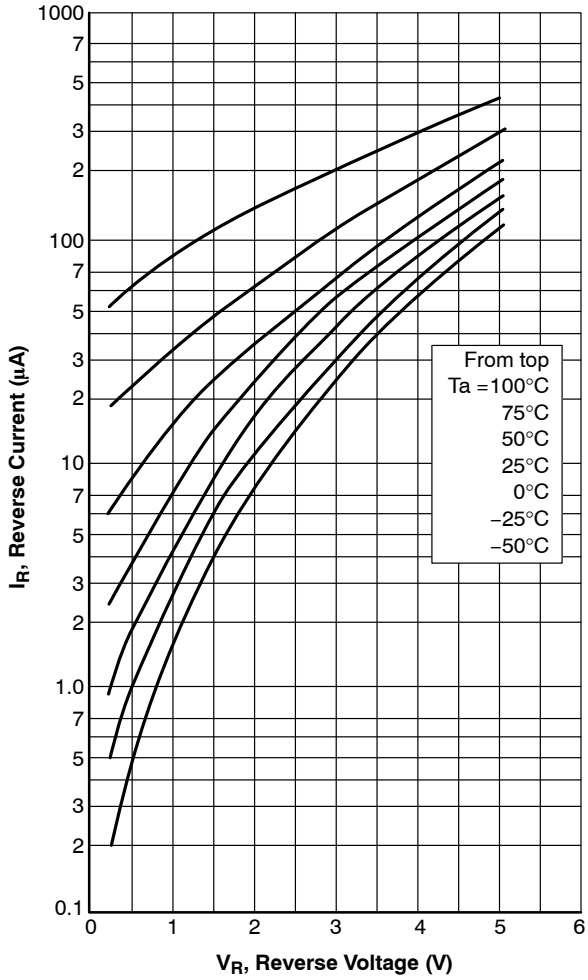


Figure 2. $I_R - V_R$

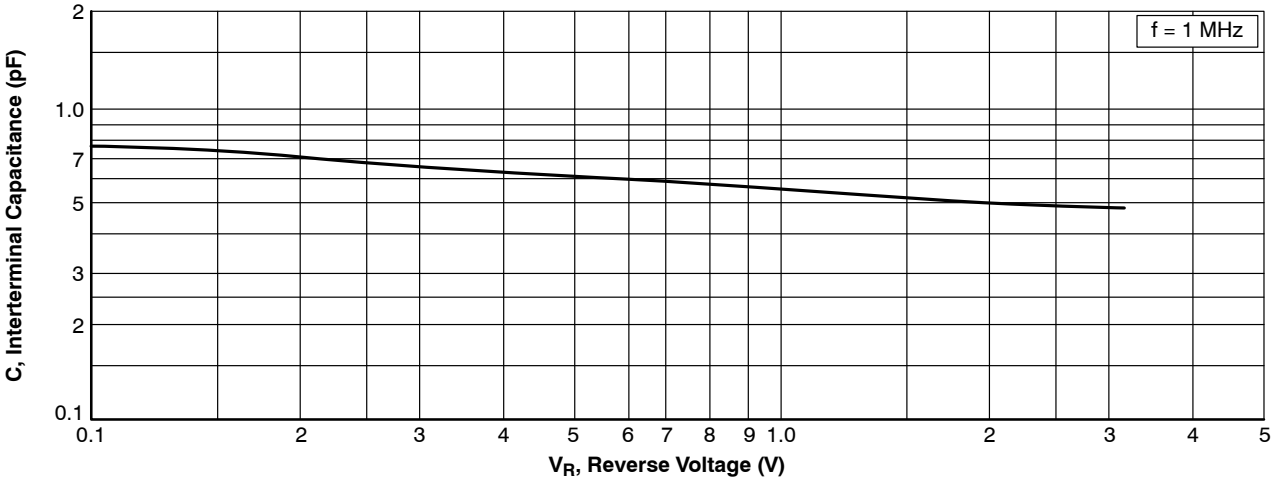


Figure 3. $C - V_R$

ORDERING INFORMATION

Device Order Number	Marking	Package Type	Shipping†
NSVR351SDSA3T1G	CH	SC−59 / CP3 (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

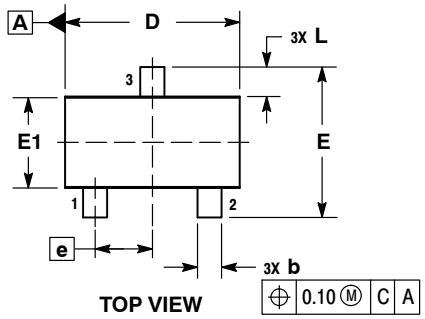
ON Semiconductor®



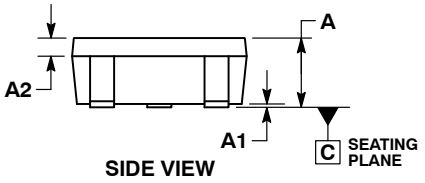
SCALE 2:1

SC−59 / CP3
CASE 318BJ
ISSUE O

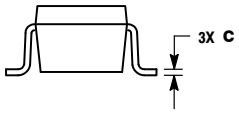
DATE 09 JAN 2015



TOP VIEW



SIDE VIEW

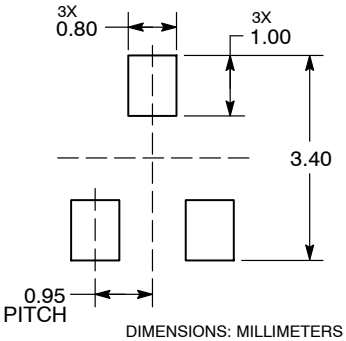


END VIEW

NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.20 PER SIDE.
4. DIMENSIONS D AND E1 ARE MEASURED AT THE OUTERMOST EXTREME OF THE PLASTIC BODY.
5. DIMENSIONS b AND c APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.10 AND 0.20 FROM THE TIP.

	MILLIMETERS	
DIM	MIN	MAX
A	0.95	1.35
A1	0.00	0.10
A2	0.20	0.40
b	0.35	0.50
c	0.10	0.20
D	2.75	3.05
E	2.30	2.70
E1	1.35	1.65
e	0.95 BSC	
L	0.35	0.75

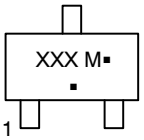
RECOMMENDED SOLDERING FOOTPRINT*



DIMENSIONS: MILLIMETERS

*For additional information on our Pb−Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

GENERIC MARKING DIAGRAM



XXX = Specific Device Code
M = Date Code
▪ = Pb−Free Package
(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “ ▪”, may or may not be present.

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DESCRIPTION:	SC−59 / CP3		PAGE 1 OF 1

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