

NSVR351SDSA3

Advance Information Schottky Barrier Diode for Mixer and Detector

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 ($C = 0.69 \text{ pF typ}$)
- Small Forward Voltage ($V_F = 0.23 \text{ V max}$)
- Pb-Free, Halogen Free and RoHS compliance
- AEC-Q101 qualified and PPAP capable

Typical Applications

- Level Detector for Radio

SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS at $T_a = 25^\circ\text{C}$ (Note 1)

| Parameter | Symbol | Value | Unit |
|--|----------------|-------------|------------------|
| Reverse Voltage | V_{RM} | 5 | V |
| Forward Current | I_F | 30 | mA |
| Operating Junction and Storage Temperature | T_j, T_{stg} | -55 to +125 | $^\circ\text{C}$ |

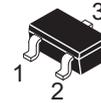
Note 1 : Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.



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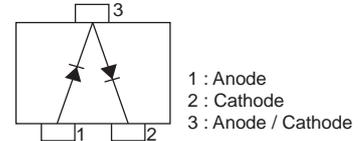
www.onsemi.com

5 V, 30 mA
 $C = 0.69 \text{ pF typ}$
Schottky Barrier Diode

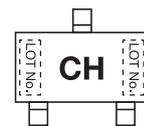


SC-59 / CP3

ELECTRICAL CONNECTION



MARKING



ORDERING INFORMATION

See detailed ordering and shipping information on page 4 of this data sheet

This document contains information on a new product. Specifications and information herein are subject to change without notice.

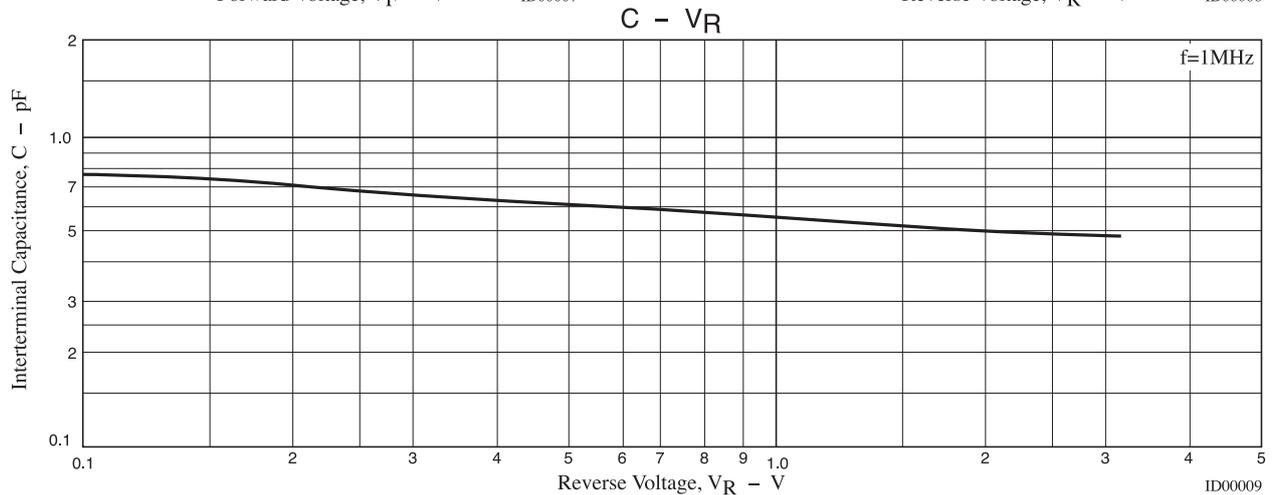
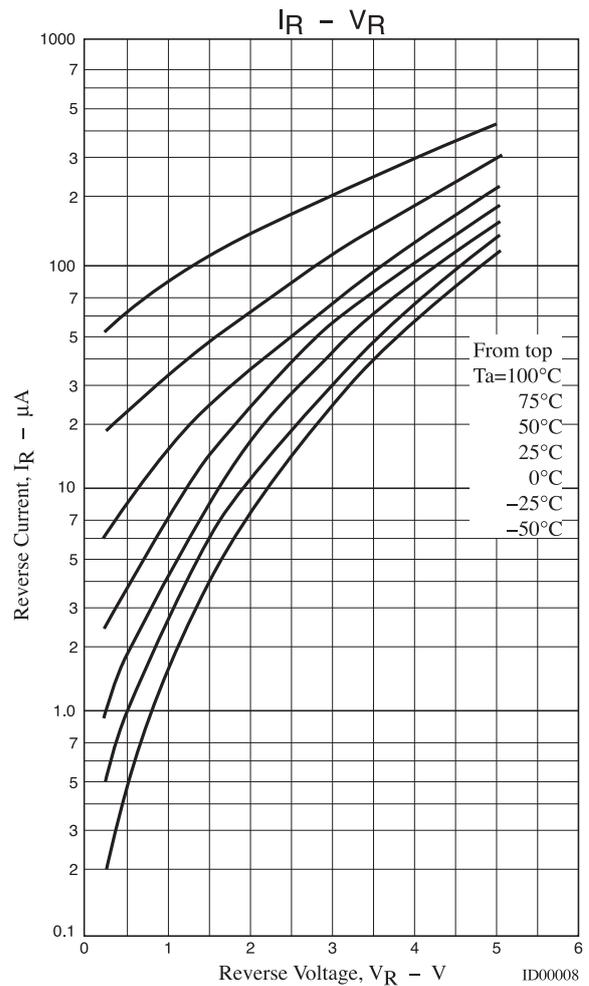
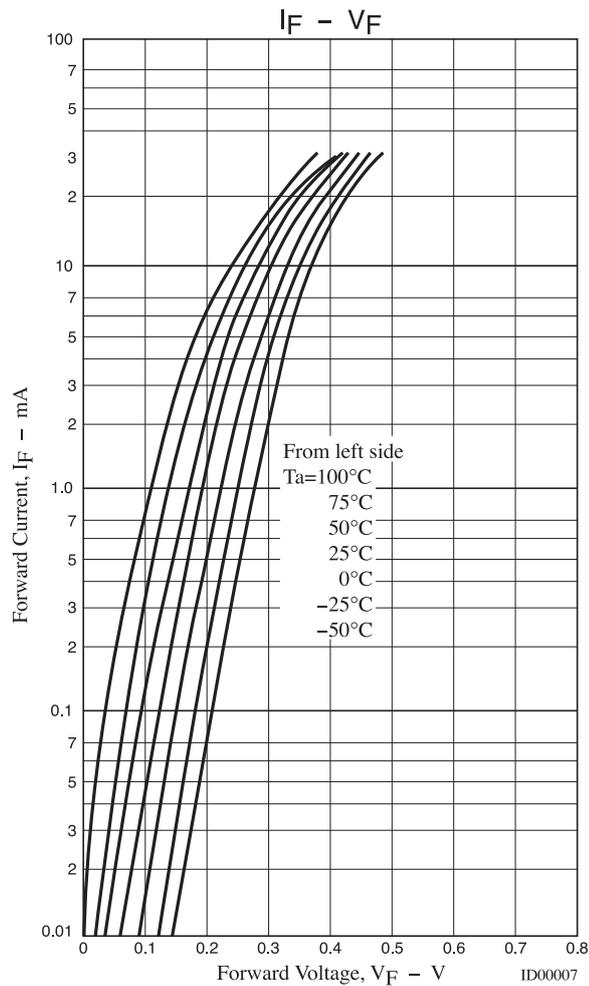
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ELECTRICAL CHARACTERISTICS at Ta = 25°C (Note 2)

| Parameter | Symbol | Conditions | Value | | | Unit |
|---------------------------|--------|--|-------|------|------|---------------|
| | | | min | typ | max | |
| Forward Voltage | V_F | $I_F = 1 \text{ mA}$ | | | 0.23 | V |
| Forward Current | I_F | $V_F = 0.5 \text{ V}$ | 30 | | | mA |
| Reverse Current | I_R | $V_R = 0.5 \text{ V}$ | | | 25 | μA |
| Interterminal Capacitance | C | $V_R = 0.2 \text{ V}, f = 1 \text{ MHz}$ | | 0.69 | 0.9 | pF |

Note 2 : 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.

Note 3 : The specifications shown above are for each individual diode.

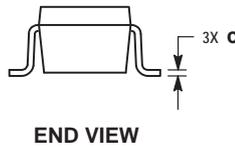
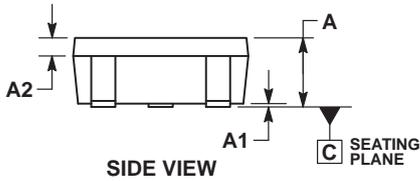
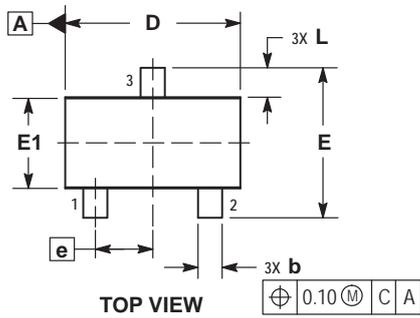


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PACKAGE DIMENSIONS

unit : mm

SC-59 / CP3
CASE 318BJ
ISSUE O

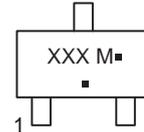


NOTES:

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 |

GENERIC MARKING DIAGRAM

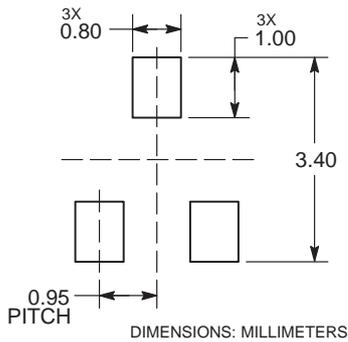


- XXX = Specific Device Code
- M = Date Code
- = Pb-Free Package

(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.

RECOMMENDED SOLDERING FOOTPRINT*



- 1 : Anode
- 2 : Cathode
- 3 : Anode / Cathode

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

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ORDERING INFORMATION

| Device | Marking | Package | 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. http://www.onsemi.com/pub_link/Collateral/BRD8011-D.PDF

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