# **Schottky Barrier Diode**

These Schottky barrier diodes are designed for high current, handling capability, and low forward voltage performance.

- Low Forward Voltage -0.35 Volts (Typ) @  $I_F = 10$  mAdc
- High Current Capability



## ON Semiconductor®

http://onsemi.com

## HIGH CURRENT SCHOTTKY BARRIER DIODE

1, 2, 5, 6 • • 3, 4 CATHODE ANODE

## MARKING DIAGRAM



SOT-563 CASE 463A STYLE 5



RD = Specific Device Code D = Date Code

#### **ORDERING INFORMATION**

Device	Package	Shipping <sup>†</sup>
NSR0320XV6T1	SOT-563	3000/Tape & Reel

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

## **MAXIMUM RATINGS** ( $T_J = 125^{\circ}C$ unless otherwise noted)

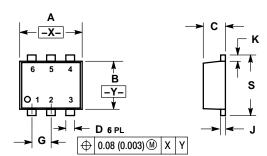
Rating	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	23	V
Forward Power Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>F</sub>	200 2.0	mW mW/°C
Forward Current (DC) Continuous	I <sub>F</sub>	1	Α
Forward Current t = 8.3 ms Half Sinewave; JEDEC Method	I <sub>F</sub>	7.5	А
Junction Temperature	$T_J$	125 Max	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

## **ELECTRICAL CHARACTERISTICS** ( $T_A = 25^{\circ}C$ unless otherwise noted)

Characteristic	Symbol	Min	Тур	Max	Unit
Total Capacitance (V <sub>R</sub> = 5.0 V, f = 1.0 MHz)	C <sub>T</sub>	_	30	35	pF
Reverse Leakage (V <sub>R</sub> = 15 V)	I <sub>R</sub>	_	10	50	μAdc
Forward Voltage (I <sub>F</sub> = 10 mAdc)	V <sub>F</sub>	-	0.24	0.27	Vdc
Forward Voltage (I <sub>F</sub> = 100 mAdc)	V <sub>F</sub>	_	0.30	0.35	Vdc
Forward Voltage (I <sub>F</sub> = 900 mAdc)	V <sub>F</sub>	_	0.45	0.50	Vdc

## **PACKAGE DIMENSIONS**

**SOT-563, 6 LEAD** PLASTIC PACKAGE CASE 463A-01 **ISSUE B** 



#### NOTES:

- NOTES:

  1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.

  2. CONTROLLING DIMENSION: MILLIMETERS

  3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS, MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
Α	1.50	1.70	0.059	0.067
В	1.10	1.30	0.043	0.051
С	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50	0.50 BSC		BSC
J	0.08	0.18	0.003	0.007
K	0.10	0.30	0.004	0.012
S	1.50	1.70	0.059	0.067

- STYLE 5: PIN 1. CATHODE 2. CATHODE 3. ANODE 4. ANODE 5. CATHODE 6. CATHODE

ON Semiconductor and are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

## **PUBLICATION ORDERING INFORMATION**

#### LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor P.O. Box 5163, Denver, Colorado 80217 USA Phone: 303–675–2175 or 800–344–3860 Toll Free USA/Canada Fax: 303–675–2176 or 800–344–3867 Toll Free USA/Canada Email: orderlit@onsemi.com

N. American Technical Support: 800–282–9855 Toll Free USA/Canada

Japan: ON Semiconductor, Japan Customer Focus Center 2–9–1 Kamimeguro, Meguro–ku, Tokyo, Japan 153–0051 Phone: 81–3–5773–3850

ON Semiconductor Website: http://onsemi.com

Order Literature: http://www.onsemi.com/litorder

For additional information, please contact your local Sales Representative.