

NSR0320XV6T1

Schottky Barrier Diode

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

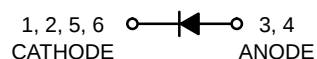
- Low Forward Voltage – 0.35 Volts (Typ) @ $I_F = 10 \text{ mAdc}$
- High Current Capability



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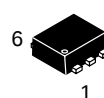
HIGH CURRENT SCHOTTKY BARRIER DIODE



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

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	23	V
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_F	200 2.0	mW mW/ $^\circ\text{C}$
Forward Current (DC) Continuous	I_F	1	A
Forward Current $t = 8.3 \text{ ms}$ Half Sinewave; JEDEC Method	I_F	7.5	A
Junction Temperature	T_J	125 Max	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

MARKING DIAGRAM



**SOT-563
CASE 463A**



RD = Specific Device Code
D = Date Code

ORDERING INFORMATION

Device	Package	Shipping
NSR0320XV6T1	SOT-563	3000/Tape & Reel

NSR0320XV6T1

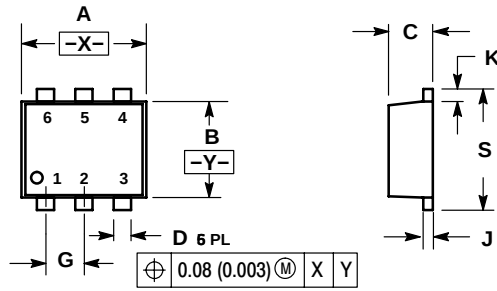
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Total Capacitance ($V_R = 5.0\text{ V}$, $f = 1.0\text{ MHz}$)	C_T	–	30	35	pF
Reverse Leakage ($V_R = 15\text{ V}$)	I_R	–	10	50	μA_{dc}
Forward Voltage ($I_F = 10\text{ mA}_{dc}$)	V_F	–	0.24	0.27	Vdc
Forward Voltage ($I_F = 100\text{ mA}_{dc}$)	V_F	–	0.30	0.35	Vdc
Forward Voltage ($I_F = 900\text{ mA}_{dc}$)	V_F	–	0.45	0.50	Vdc

NSR0320XV6T1

PACKAGE DIMENSIONS

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



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.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50 BSC		0.020 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 1:

- PIN 1. EMITTER 1
2. BASE 1
3. COLLECTOR 2
4. EMITTER 2
5. BASE 2
6. COLLECTOR 1

STYLE 2:

- PIN 1. EMITTER 1
2. EMITTER 2
3. BASE 2
4. COLLECTOR 2
5. BASE 1
6. COLLECTOR 1

STYLE 3:

- PIN 1. CATHODE 1
2. CATHODE 1
3. ANODE/ANODE 2
4. CATHODE 2
5. CATHODE 2
6. ANODE/ANODE 1

STYLE 4:

- PIN 1. COLLECTOR
2. COLLECTOR
3. BASE
4. EMITTER
5. COLLECTOR
6. COLLECTOR

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