



SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- **Guard Ring Construction for Transient Protection**
- Fast Switching Speed
- Low Capacitance
- Surface Mount Package Ideally Suited for Automated Insertion
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

- Case: SOD323
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Polarity: Cathode Band
- Terminals: Finish Matte Tin Annealed Over Alloy 42 Leadframe. Solderable per MIL-STD-202, Method 208 @3
- Weight: 0.004 grams (Approximate)



Top View

Ordering Information (Note 4)

Part Number	Case	Packaging
1N5711WS-7-F	SOD323	3000/Tape & Reel

Notes:

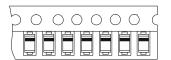
- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
- 2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/

Marking Information

SOD323



SA = Product Type Marking Code



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Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	70	V
RMS Reverse Voltage	V _{R(RMS)}	49	V
Forward Continuous Current	I _{FM}	15	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_{D}	150	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{ hetaJA}$	650	°C/W
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

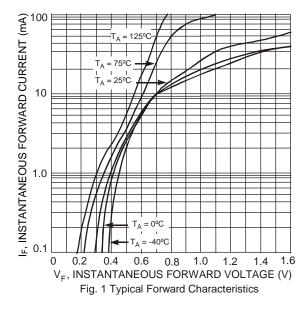
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

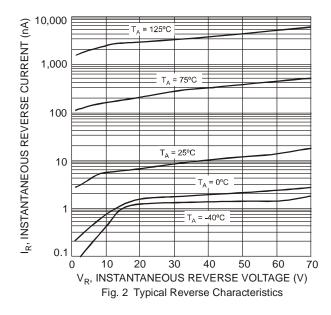
Characteristic	Symbol	Min	Тур	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 6)	$V_{(BR)R}$	70			V	$I_R = 10\mu A$
Reverse Leakage Current (Note 6)	I_R			200	nA	$V_R = 50V$
Forward Voltage Drop	V_{F}			0.41 1.00	>	$I_F = 1.0 \text{mA}$ $I_F = 15 \text{mA}$
Total Capacitance	CT			2.0	рF	$V_R = 0V$, $f = 1.0MHz$
Reverse Recovery Time	t _{RR}	_	_	1.0	ns	$I_F = I_R = 5.0 \text{mA},$ $I_{RR} = 0.1 \times I_R, R_L = 100 \Omega$

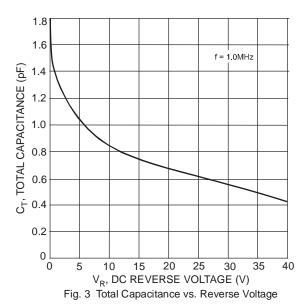
5. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/package-outlines.html. 6. Short duration pulse test used to minimize self-heating effect. Notes:

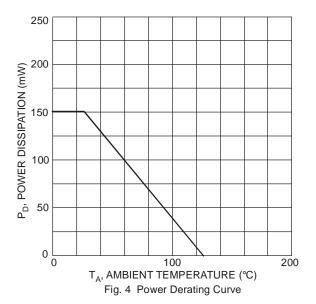
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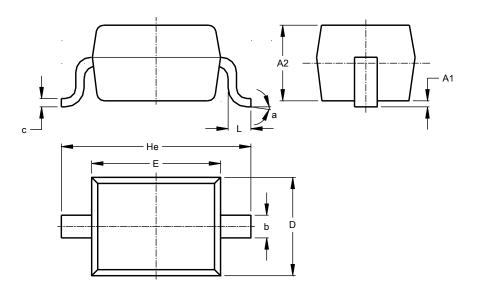




Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOD323

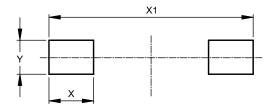


1						
SOD323						
Dim	Min	Max	Тур			
A1		0.10	0.05			
A2	1.00	1.10	1.05			
b	0.25	0.35	0.30			
С	0.10	0.15	0.11			
D	1.20	1.40	1.30			
Е	1.60	1.80	1.70			
He	2.30	2.70	2.50			
L	0.20	0.40	0.30			
а	00	8°				
All Dimensions in mm						

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOD323



Dimensions	Value (in mm)
Х	0.590
X1	2.700
Υ	0.450



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