

July 2008

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SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching Time
- Low Reverse Capacitance
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device (Notes 3 and 4)

Mechanical Data

- Case: SOD-123
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe)
- Polarity: Cathode Band
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.01 grams (approximate)



Top View

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 _R wm V _R	70	V
RMS Reverse Voltage	V _{R(RMS)}	49	V
Maximum Forward Current	I _{FM}	15	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P _D	333	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{ hetaJA}$	300	°C/W
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

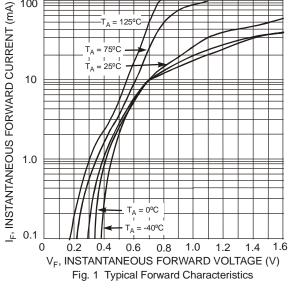
Electrical Characteristics @TA = 25°C unless otherwise specified

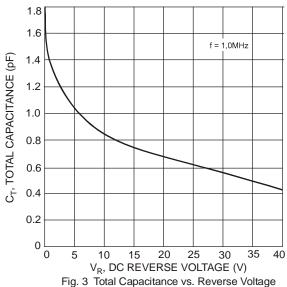
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	70			V	$I_R = 10\mu A$
Forward Voltage Drop	VF	_	_	0.41	V	$I_F = 1.0 \text{mA}$
Torward Vollage Drop	٧F			1.00	٧	$I_F = 15mA$
Reverse Leakage Current (Note 2)	I_R	_		200	nA	$V_R = 50V$
Total Capacitance	C _T	_		2.0	рF	$V_R = 0V$, $f = 1.0MHz$
Reverse Recovery Time	t _{rr}	_	_	1.0	ns	$I_F = I_R = 5.0 \text{mA}$
Neverse Necovery Time					115	$I_{rr} = 0.1 \text{ x } I_{R}, R_{L} = 100\Omega$

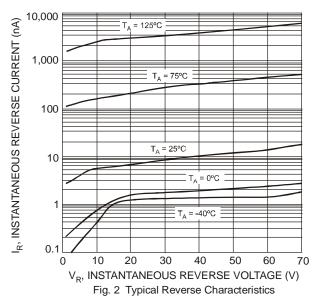
Notes

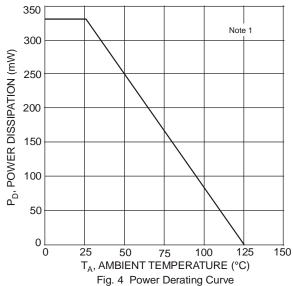
- 1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- Short duration pulse test used to minimize self-heating effect.
- 3. No purposefully added lead. Halogen and Antimony Free.
- Product manufactured with Data Code V9 (week 33, 2008) and newer are built with Green Molding Compound. Product manufactured prior to Date Code V9 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.











Ordering Information (Note 5)

Part Number	Case	Packaging
1N5711W-7-F	SOD-123	3000/Tape and Reel

5. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



SA = Product Type Marking Code YM = Date Code Marking

Y = Year (ex: T = 2006)

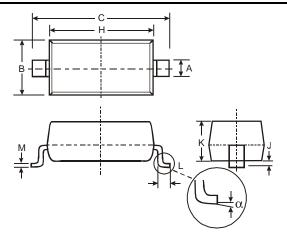
M = Month (ex: 9 = September)

Date Code Key

Date Cot	ie itey																	
Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Code	J	K	L	М	Ν	Р	R	S	Т	U	>	W	X	Υ	Z	Α	В	С
Month	Jan	1	Feb	Mai	r	Apr	May	,	Jun	Jul		Aug	Sep		Oct	Nov	,	Dec
Code	1		2	3		4	5		6	7		8	9		0	N		D

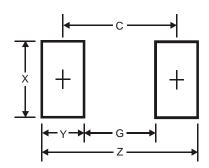


Package Outline Dimensions



SOD-123							
Dim	Min Max						
Α	0.55 Typ						
В	1.40	1.70					
С	3.55	3.85					
Н	2.55	2.85					
J	0.00	0.10					
K	1.00	1.35					
L	0.25	0.40					
M	0.10	0.15					
α	0	8°					
All Dimensions in mm							

Suggested Pad Layout



Dimensions	Value (in mm)
Z	4.9
G	2.5
Х	0.7
Y	1.2
С	3.7

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