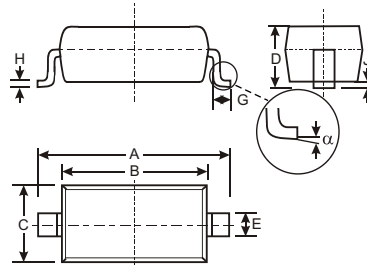


### Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching Time
- Low Reverse Capacitance
- Surface Mount Package Ideally Suited for Automatic Insertion
- Also Available in Lead Free Version

### Mechanical Data

- Case: SOD-123, Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 3
- Polarity: Cathode Band
- Marking: Date Code and Type Code, See Page 3
- Type Code: SA
- Weight: 0.01 grams (approx.)
- Ordering Information: See Below



SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
$\alpha$	0°	8°
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ 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
Maximum Forward Current	$I_{FM}$	15	mA
Power Dissipation (Note 1)	$P_d$	333	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300	$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	70	—	—	V	$I_R = 10\mu\text{A}$
Reverse Leakage Current (Note 2)	$I_R$	—	—	200	nA	$V_R = 50\text{V}$
Forward Voltage Drop (Note 2)	$V_F$	—	—	0.41 1.00	V	$I_F = 1.0\text{mA}$ $I_F = 15\text{mA}$
Total Capacitance	$C_T$	—	—	2.0	pF	$V_R = 0\text{V}$ , $f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	—	1.0	ns	$I_F = I_R = 5.0\text{mA}$ $t_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$

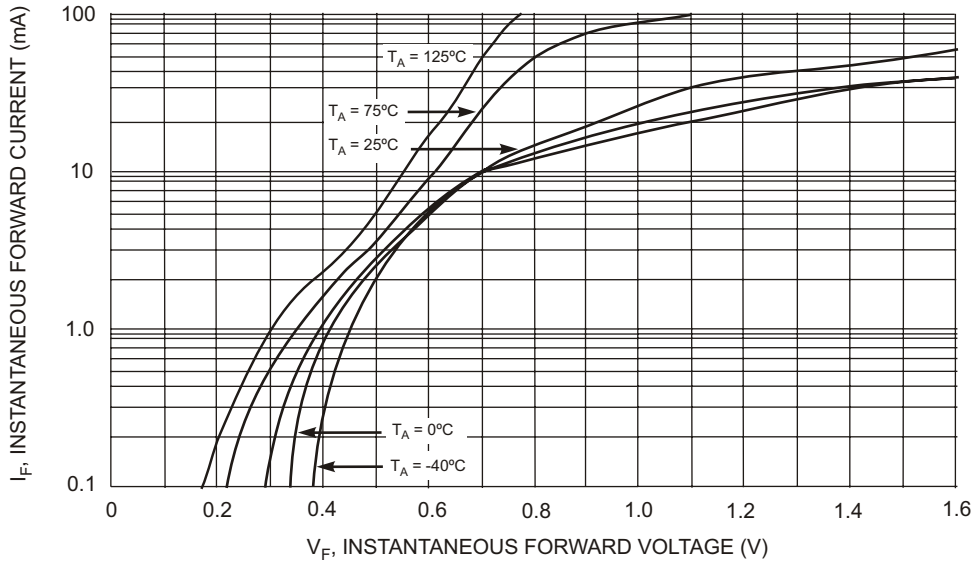


Fig. 1 Typical Forward Characteristics

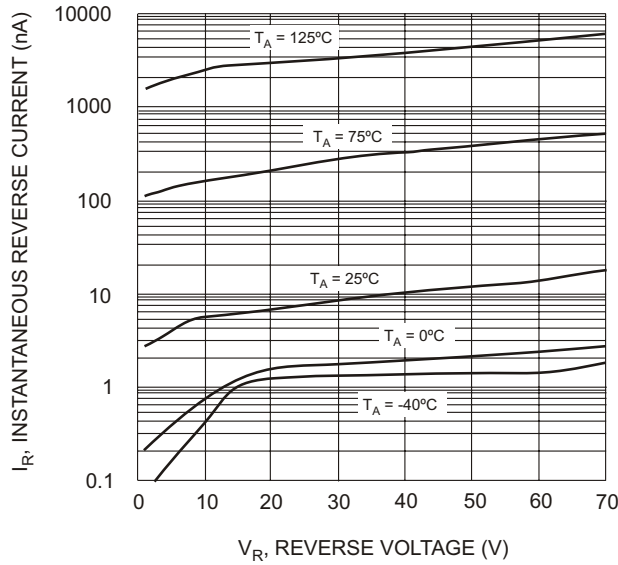


Fig. 2 Typical Reverse Characteristics

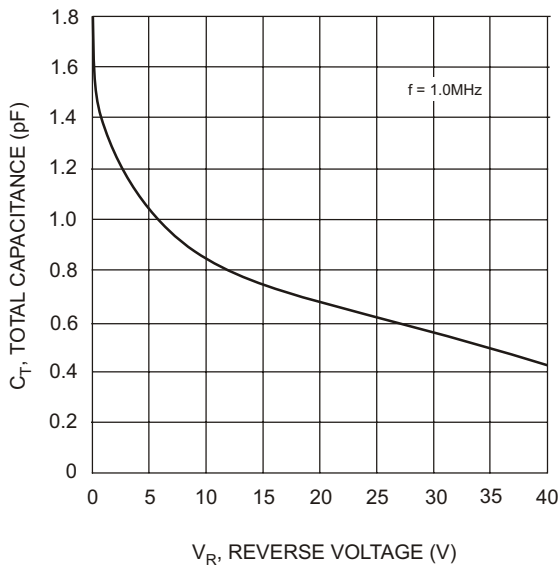


Fig. 3 Typical Capacitance

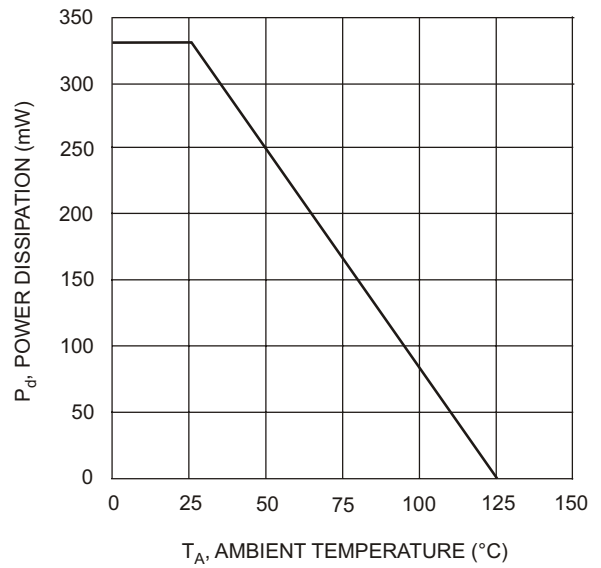


Fig. 4 Power Derating Curve

**Ordering Information** (Note 3)

Device	Packaging	Shipping
1N5711W-7	SOD-123	3000/Tape and Reel

- Note:
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>.
  2. Short duration test pulse used to minimize self-heating effect.
  3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
  4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.  
Example: 1N5711W-7-F.

**Marking Information**



SA = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year (ex: N = 2002)  
 M = Month (ex: 9 = September)

Date Code Key

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Code	J	K	L	M	N	P	R	S	T	U	V	W

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D