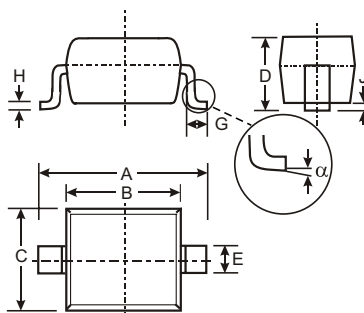


Features

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version

Mechanical Data

- Case: SOD-323, Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Leads: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please See Ordering Information, Note 4, on Page 2
- Marking: L9
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.60	1.80
C	1.20	1.40
D	1.05 Typical	
E	0.25	0.35
G	0.20	0.40
H	0.10	0.15
J	0.05 Typical	
α	0°	8°
All Dimensions in mm		

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	30	V
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Forward Current	I _O	100	mA
Forward Continuous Current (Note 1)	I _F	200	mA
Repetitive Peak Forward Current (Note 1)	I _{FRM}	300	mA
Forward Surge Current (Note 1) @ t < 1.0s	I _{FSM}	600	mA
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	30	—	—	V	I _{RS} = 100μA
Forward Voltage (Note 2)	V _{FM}	—	—	240 320 400 500 1000	mV	I _F = 0.1mA I _F = 1mA I _F = 10mA I _F = 30mA I _F = 100mA
Reverse Leakage Current (Note 2)	I _{RM}	—	—	2.0	μA	V _R = 25V
Total Capacitance	C _T	—	—	10	pF	V _R = 1.0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	5.0	ns	I _F = 10mA through I _R = 10mA to I _R = 1.0mA, R _L = 100Ω

- Notes:
1. Part mounted on FR-4 PC 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.

Ordering Information (Note 3 and 4)

Device	Packaging	Shipping
BAT54WS-7	SOD-323	3000/Tape & Reel

- Notes:
- For Packaging Details, go to our website at: <http://www.diodes.com/datasheets/ap02007.pdf>.
 - For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.
Example: BAT54WS-7-F.

Marking Information

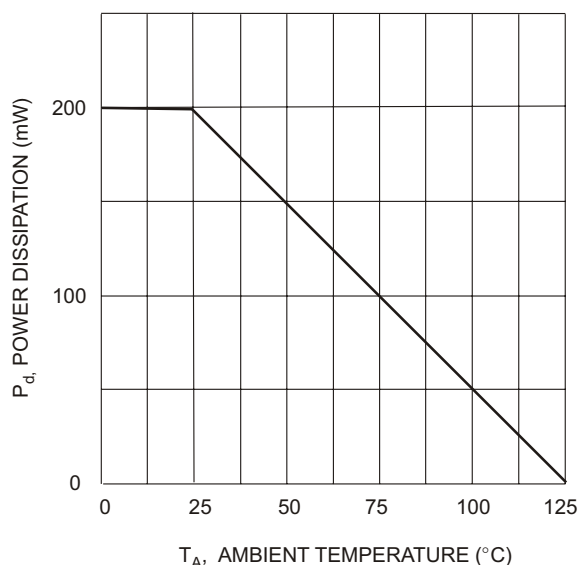
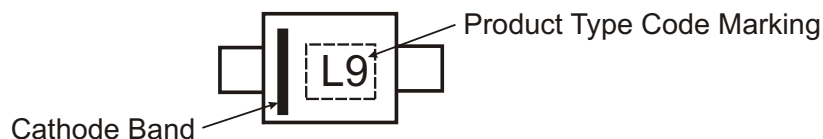


Fig. 1 Power Derating Curve

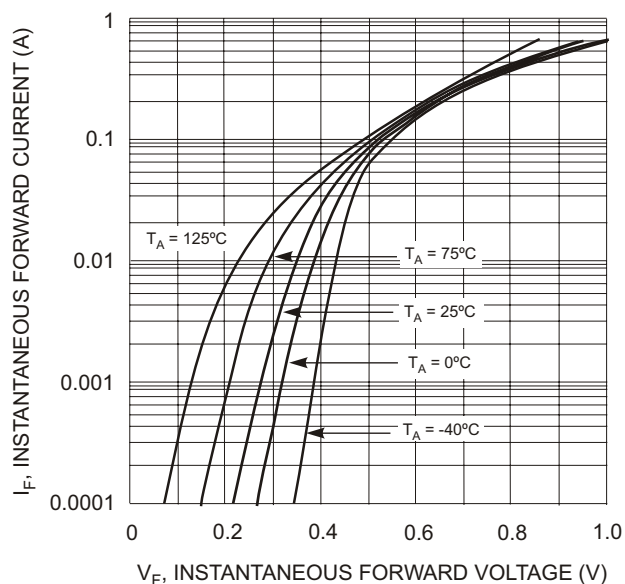


Fig. 2 Forward Characteristics

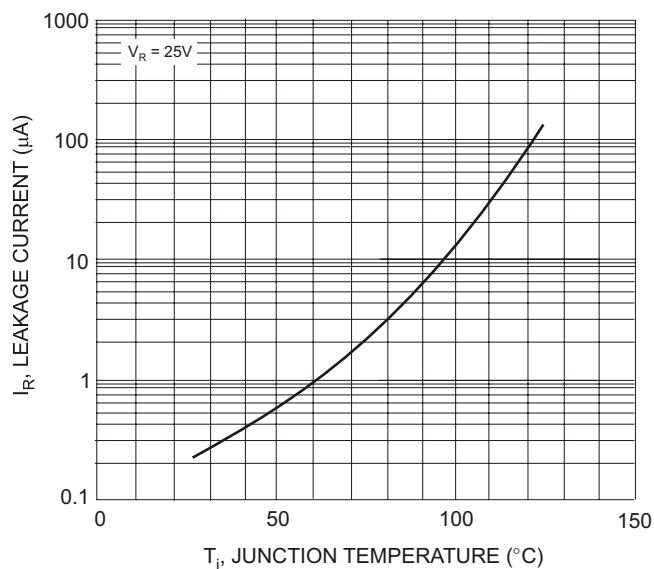


Fig. 3 Typical Reverse Characteristics

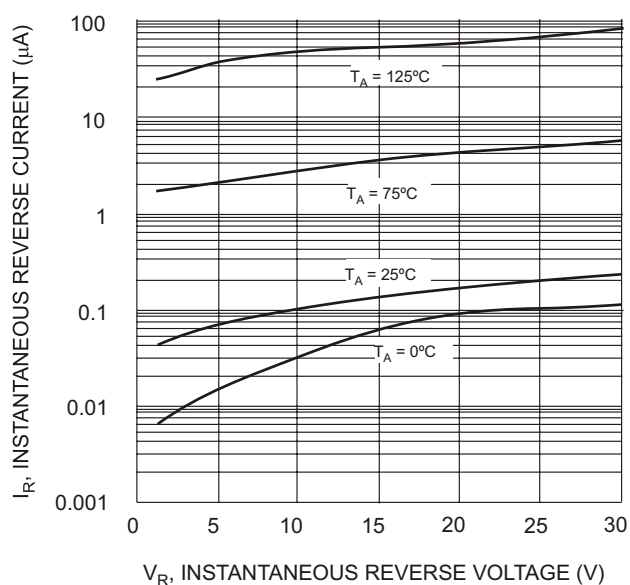


Fig. 4 Typical Reverse Characteristics

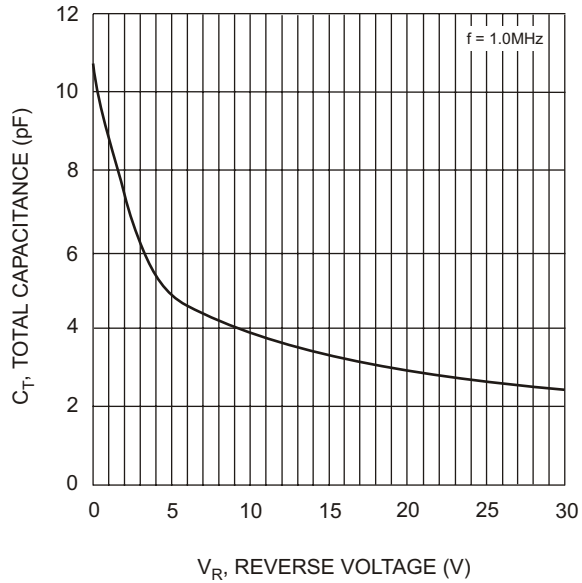


Fig. 5 Typical Capacitance vs. Reverse Voltage