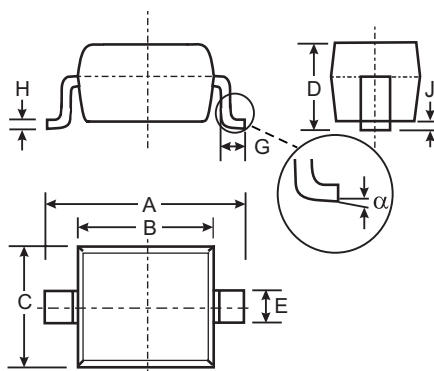


Features

- Very Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Lead Free/RoHS Compliant (Note 4)

Mechanical Data

- Case: SOD-323
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Leads: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe). Please see Ordering Information, Note 4, on Page 1
- Polarity: Cathode Band
- Marking: SD, See Page 2
- 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

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	20	V
RMS Reverse Voltage	V _{R(RMS)}	14	V
Average Rectified Output Current	I _O	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	2	A
Power Dissipation (Note 1)	P _D	235	mW
Typical Thermal Resistance Junction to Ambient (Note 1)	R _{θJA}	426	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	Test Conditions
Minimum Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	20	V	I _R = 0.5mA
Maximum Forward Voltage Drop	V _F	0.310 0.430	V	I _F = 0.1A I _F = 0.5A
Maximum Leakage Current (Note 2)	I _R	100 250	μA	V _R = 10V V _R = 20V
Typical Total Capacitance	C _T	58	pF	f = 1MHz, V _R = 0VDC

Ordering Information (Note 3)

Device	Packaging	Shipping
B0520WS-7-F	SOD-323	3000/Tape and Reel

- Note:
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.
 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
 4. No purposefully added lead.

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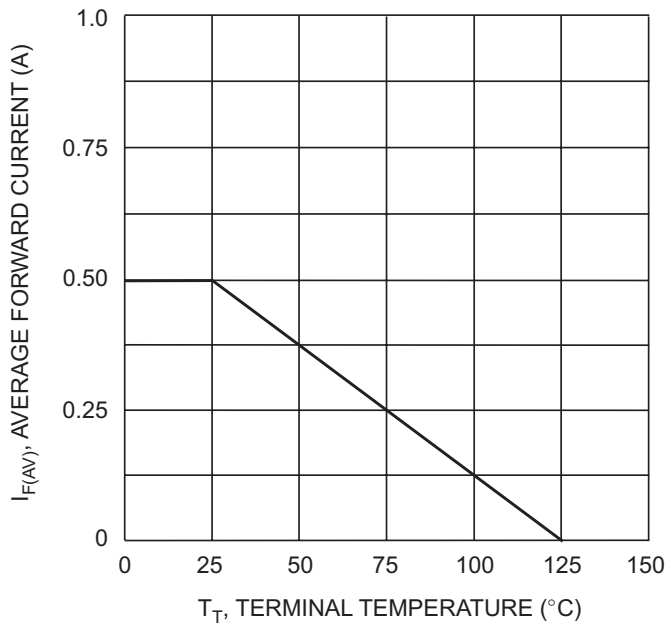
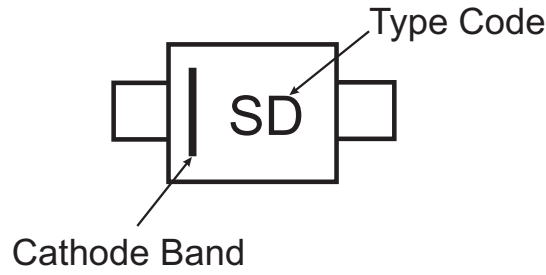


Fig. 1 Forward Current Derating Curve

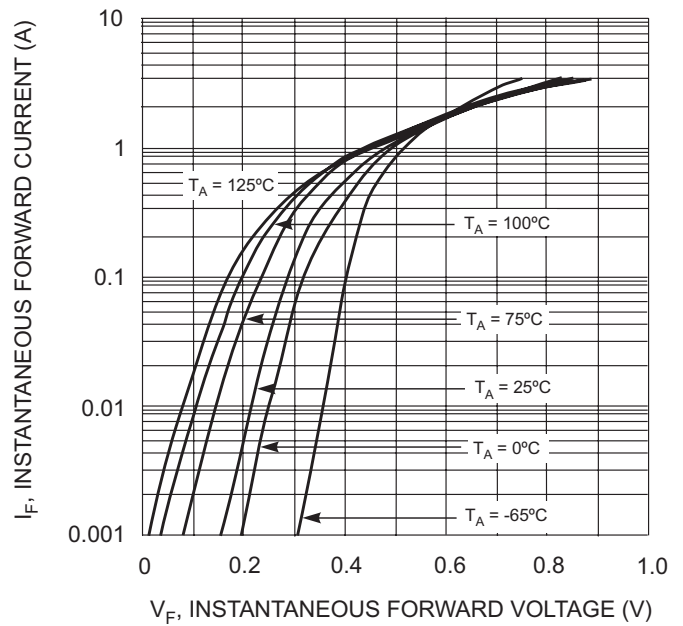


Fig. 2 Typical Forward Characteristics

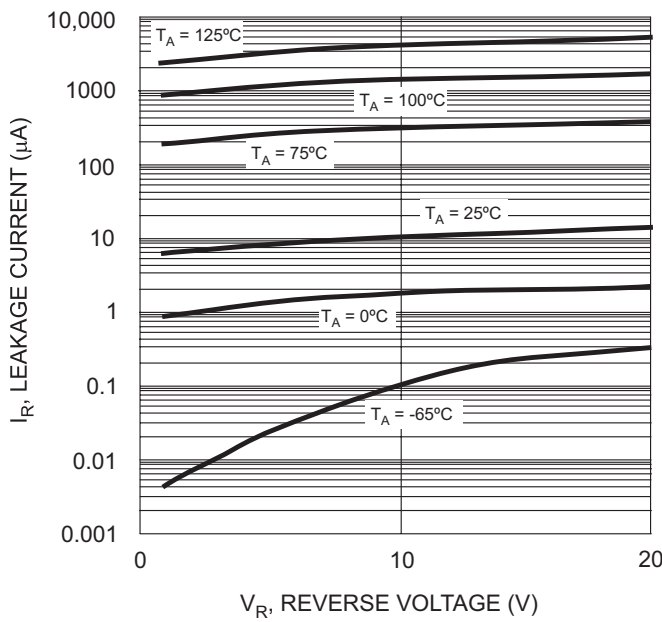


Fig. 3 Typical Reverse Characteristics

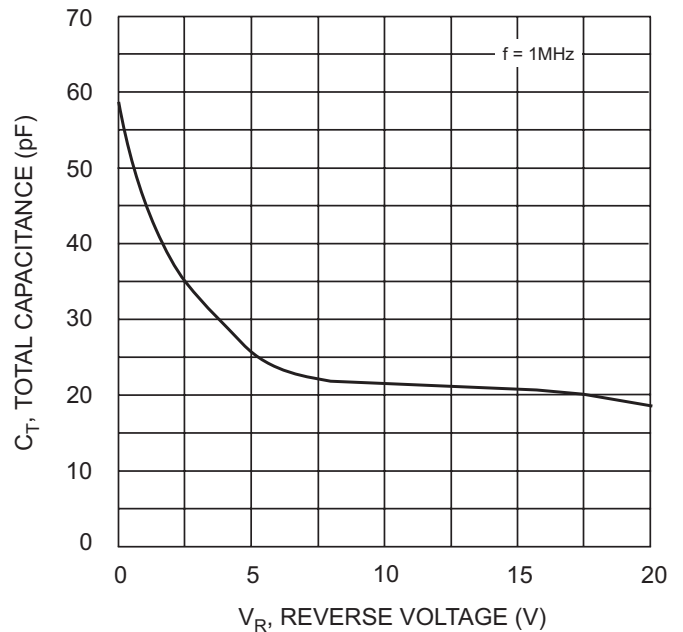


Fig. 4 Typ. Total Capacitance vs Reverse Voltage

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