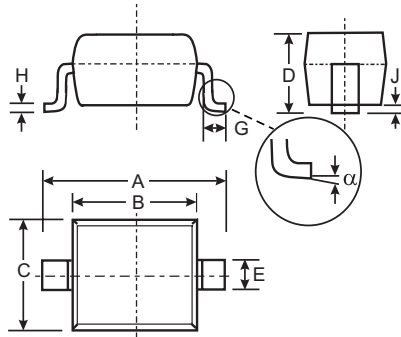


### Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance
- **Lead Free/RoHS Compliant (Note 3)**

### 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).
- Polarity: Cathode Band
- Marking: See Page 2
- Type Code: SG
- Weight: 0.004 grams (approximate)



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	
$\alpha$	0°	8°
<b>All Dimensions in mm</b>		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	100	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 10ms	I <sub>FSM</sub>	750	mA
Power Dissipation (Note 1)	P <sub>d</sub>	250	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	500	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to 150	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	30	—	—	V	I <sub>R</sub> = 100μA
Forward Voltage Drop	V <sub>FM</sub>	—	300 360 470 580	— — 550 800	mV	@ I <sub>F</sub> = 2.0mA @ I <sub>F</sub> = 15mA @ I <sub>F</sub> = 50mA @ I <sub>F</sub> = 100mA
Peak Reverse Current (Note 2)	I <sub>RM</sub>	—	—	1.0	μA	V <sub>R</sub> = 25V
Total Capacitance	C <sub>T</sub>	—	7	—	pF	V <sub>R</sub> = 10V f = 1.0 MHz

- 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 in minimizing self-heating effect.  
 3. No purposefully added lead.

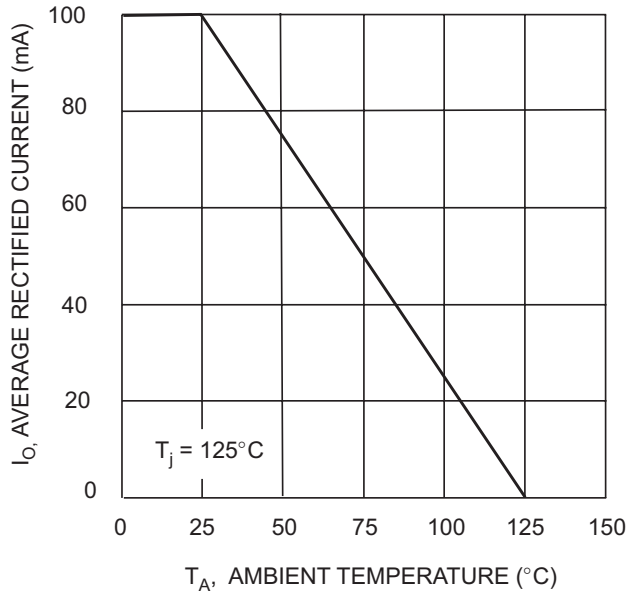


Fig. 1 Forward Current Derating Curve

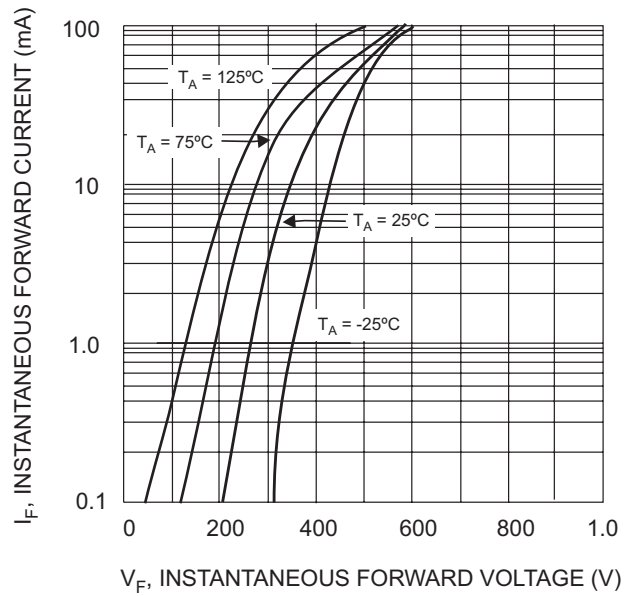


Fig. 2 Typical Forward Characteristics

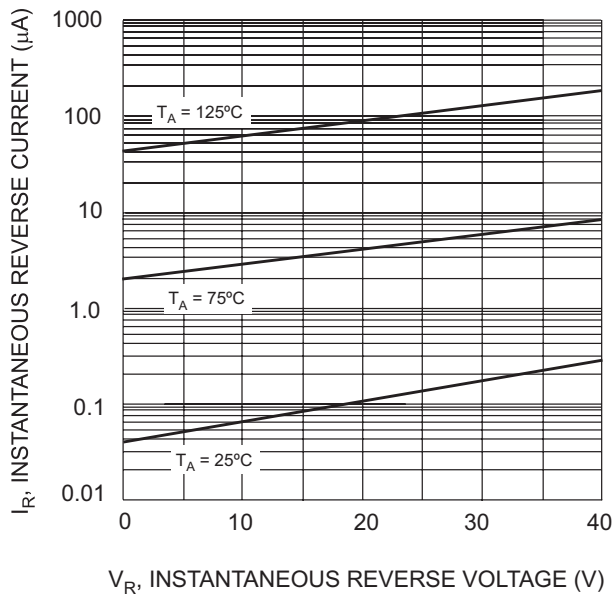


Fig. 3 Typical Reverse Characteristics

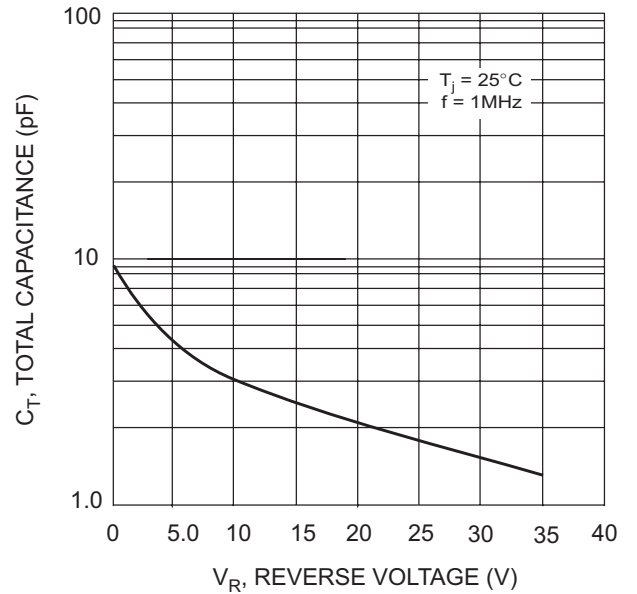


Fig. 4 Total Capacitance vs. Reverse Voltage

**Ordering Information** (Note 4)

Device	Packaging	Shipping
SD107WS-7-F	SOD-323	3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



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