SD107WS

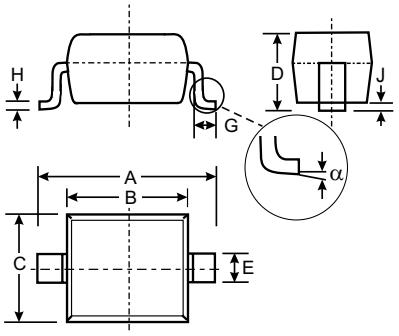
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance

Mechanical Data

- Case: SOD-323, Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020A
- Polarity: Cathode Band
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Marking Code and Date Code
- Marking Code: SG



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	SD107WS	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
Forward Continuous Current (Note 1)	I_{FM}	100	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 10ms	I_{FSM}	750	mA
Power Dissipation (Note 1)	P_d	250	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to 150	°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_R = 100μA
Forward Voltage Drop (Note 2)	V_{FM}	-	300 360 470 580	- - 550 800	mV	@ I_F = 2.0mA @ I_F = 15mA @ I_F = 50mA @ I_F = 100mA
Peak Reverse Current (Note 2)	I_{RM}	-	-	1.0	μA	V_R = 25V
Total Capacitance	C_T	-	7	-	pF	V_R = 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.

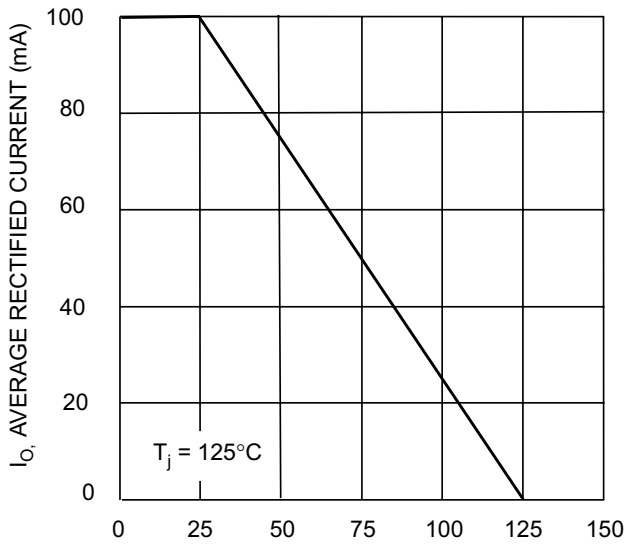


Fig. 1 Forward Current Derating Curve

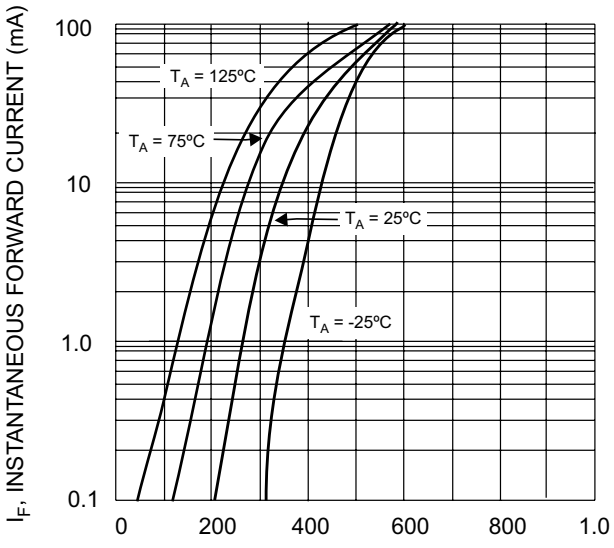


Fig. 2 Typical Forward Characteristics

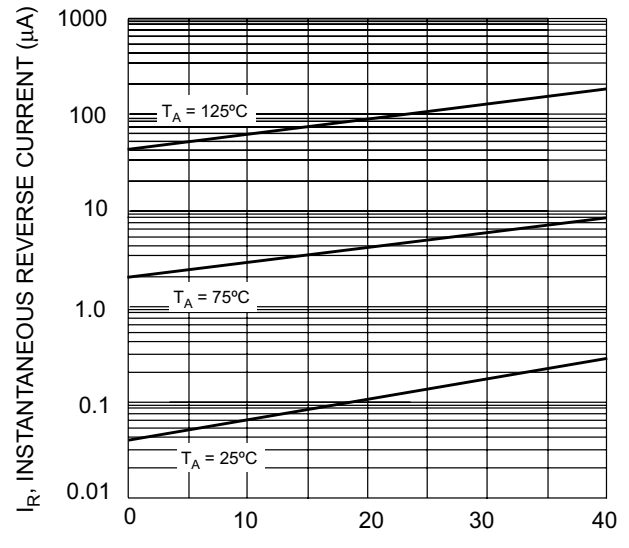


Fig. 3 Typical Reverse Characteristics

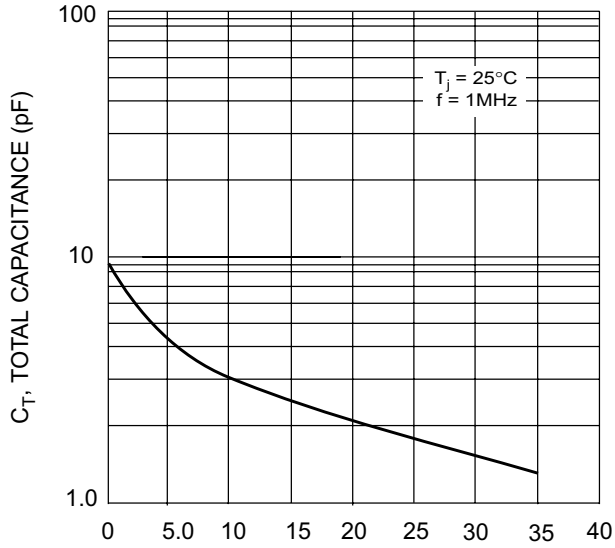


Fig. 4 Total Capacitance vs. Reverse Voltage

Ordering Information (Note 1)

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

Notes: 1. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information

