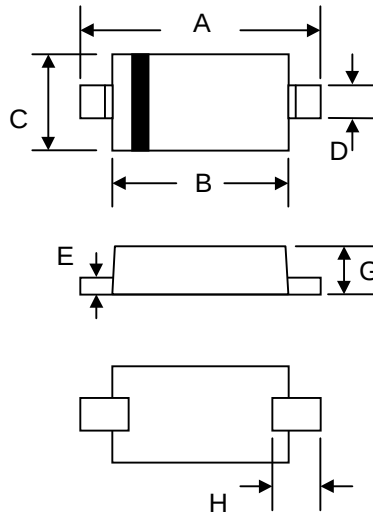


Features

- 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
- Marking Code: SG
- Weight: 0.004 grams (approx.)



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ 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 @ $t \leq 10\text{ms}$	I_{FSM}	750	mA
Power Dissipation (Note 1)	P_d	250	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 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)	$V_{(BR)R}$	30	-	-	V	$I_R = 100\mu\text{A}$
Forward Voltage Drop (Note 2)	V_{FM}	-	300 360 470 580	- - 550 800	mV	@ $I_F = 2.0\text{mA}$ @ $I_F = 15\text{mA}$ @ $I_F = 50\text{mA}$ @ $I_F = 100\text{mA}$
Peak Reverse Current (Note 2)	I_{RM}	-	-	1.0	μA	$V_R = 25\text{V}$
Total Capacitance	C_T	-	7	-	pF	$V_R = 10\text{V}$ $f = 1.0\text{MHz}$

Notes: 1. Part mounted on FR-4 PC board with recommended pad layout,
2. Short duration test pulse used in minimizing self-heating effect.

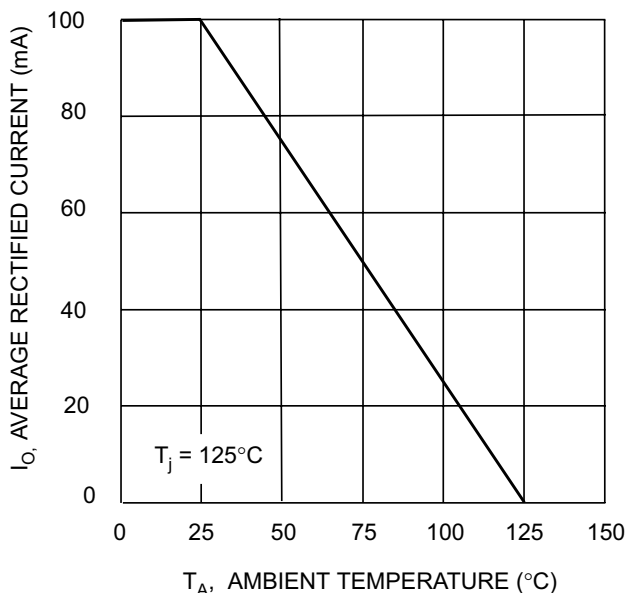


Fig. 1 Forward Current Derating Curve

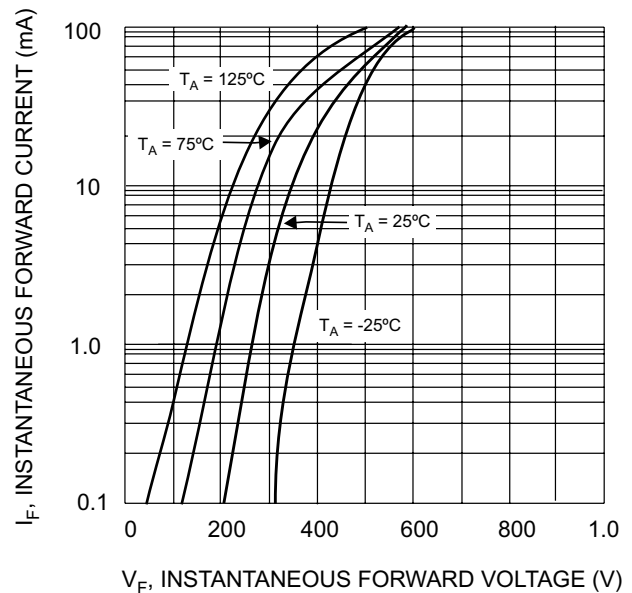


Fig. 2 Typical Forward Characteristics

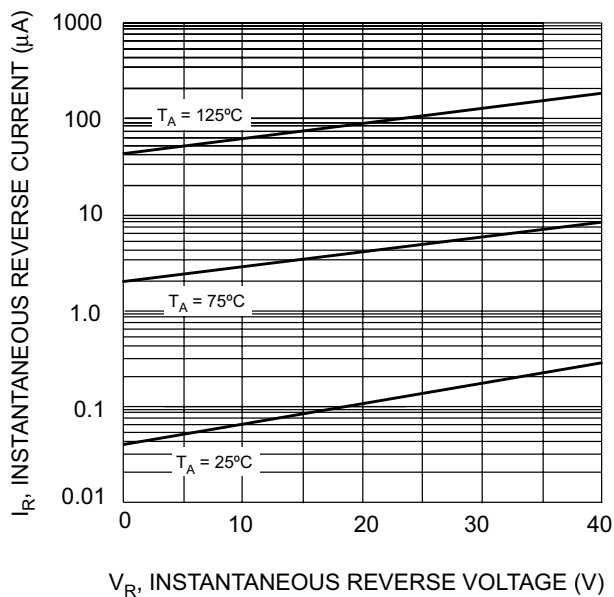


Fig. 3 Typical Reverse Characteristics

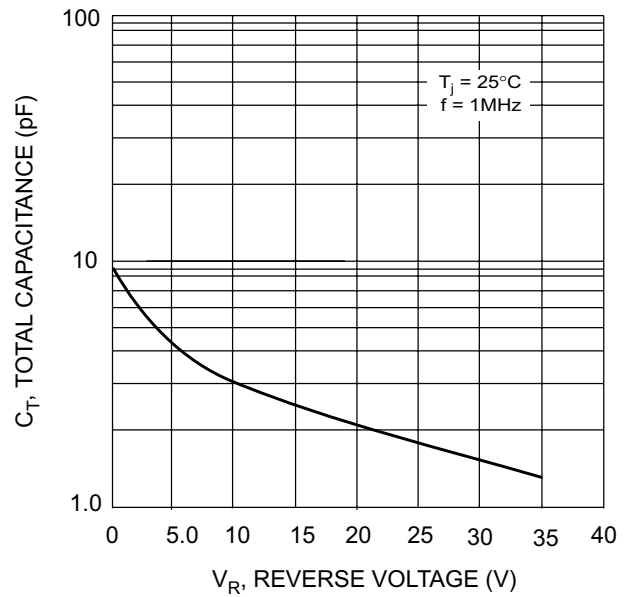


Fig. 4 Total Capacitance vs. Reverse Voltage