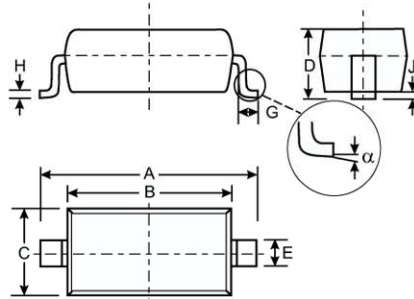


●Features

Low Forward Voltage Drop
Guard Ring Construction for
Transient Protection
Negligible Reverse Recovery Time

●Mechanical Data

Case: SOD-123, 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
Weight: 0.01 grams (approx.)



SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

●Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	30	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Forward Continuous Current (Note 1)	I_{FM}	350			mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{s}$	I_{FSM}	1.5			A
Power Dissipation (Note 1)	P_d	400			mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125			$^\circ\text{C}$

●Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Cyp	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2) SD103AW SD103BW SD103CW	$V_{(BR)R}$	40 30 20	—	—	V	$I_R = 100\mu\text{A}$
Forward Voltage Drop (Note 2)	V_{FM}	—	—	0.37 0.60	V	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$
Peak Reverse Current (Note 2) SD103AW SD103BW SD103CW	I_{RM}	—	—	5.0	μA	$V_R = 30\text{V}$ $V_R = 20\text{V}$ $V_R = 10\text{V}$
Total Capacitance	C_T	—	50	—	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	10	—	ns	$I_F = I_R = 200\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

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

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REV.07



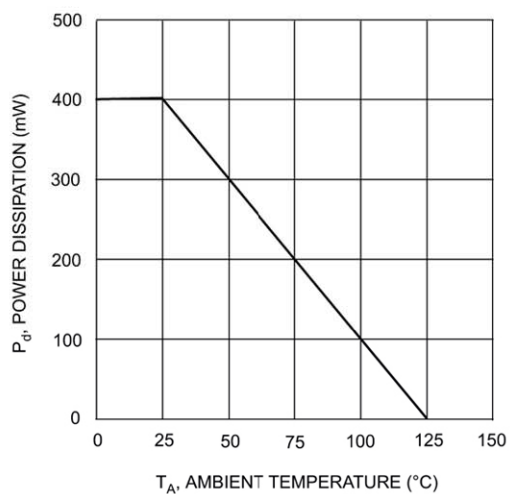


Fig.1 Power Derating Curve

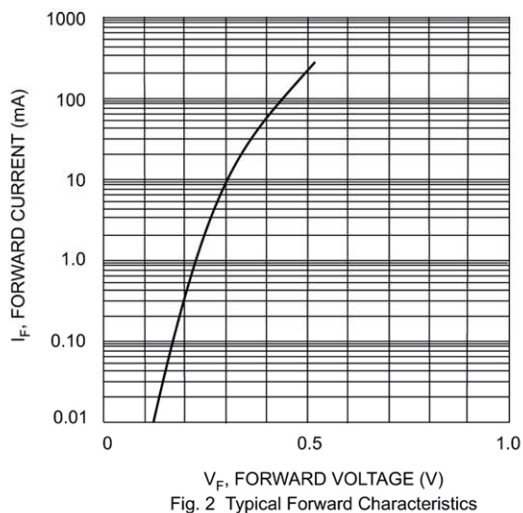


Fig. 2 Typical Forward Characteristics

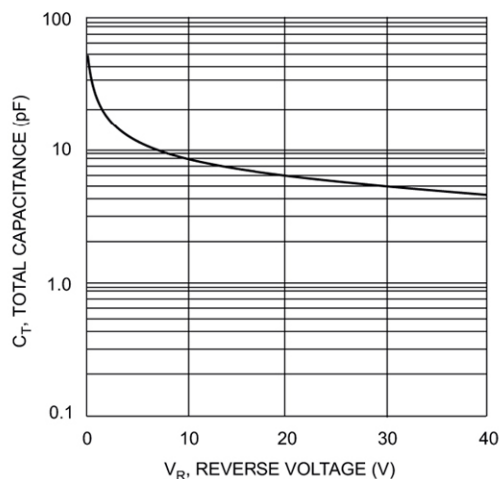


Fig. 3 Typ. Total Capacitance vs Reverse Voltage

Ordering Information

Device	Packaging	Shipping
SD103AW	SOD-123	3000/Tape and Reel
SD103BW	SOD-123	3000/Tape and Reel
SD103CW	SOD-123	3000/Tape and Reel

