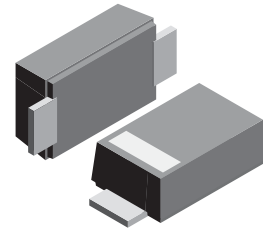


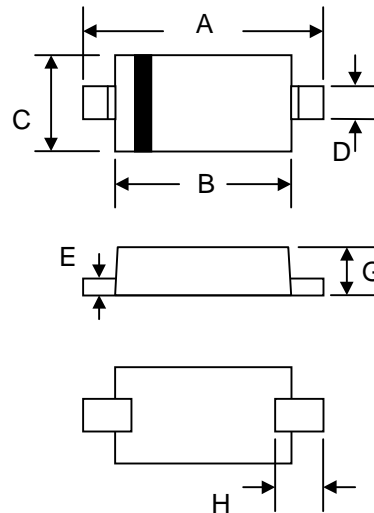
Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Ultra-small Surface Mount Package



Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- 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°C unless otherwise specified

Characteristic	Symbol	SD101AWS	SD101BWS	SD101CWS	Unit
Peak Repetitive Reverse Voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	60	50	40	V
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	42	35	28	V
Forward Continuous Current (Note 1)	I _{FM}		15		mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s	I _{FSM}		50		mA
@ t = 10μs			2.0		A
Power Dissipation (Note 1)	P _d		200		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}		625		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}		-65 to +125		°C

Note: 1. Part mounted on FR-4 PC board with recommended pad layout



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

Characteristic		Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	SD101AWS SD101BWS SD101CWS	$V_{(BR)R}$	60 50 40	—	V	$I_R = 10\mu\text{A}$ $I_R = 10\mu\text{A}$ $I_R = 10\mu\text{A}$
Forward Voltage Drop (Note 2)	SD101AWS SD101BWS SD101CWS SD101AWS SD101BWS SD101CWS	V_{FM}	—	0.41 0.40 0.39 1.00 0.95 0.90	V	$I_F = 1.0\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 15\text{mA}$ $I_F = 15\text{mA}$ $I_F = 15\text{mA}$
Peak Reverse Current (Note 2)	SD101AWS SD101BWS SD101CWS	I_{RM}	—	200	nA	$V_R = 50\text{V}$ $V_R = 40\text{V}$ $V_R = 30\text{V}$
Total Capacitance	SD101AWS SD101BWS SD101CWS	C_T	—	2.0 2.1 2.2	pF	$V_R = 0\text{V}$, $f = 1.0\text{MHz}$
Reverse Recovery Time		t_{rr}	—	1.0	ns	$I_F = I_R = 5.0\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$

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



RATINGS AND CHARACTERISTIC CURVES SD101AWS-SD101CWS

FIG. 1- POWER DERATING CURVE

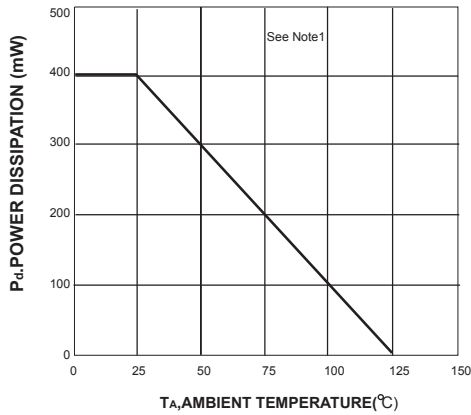


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

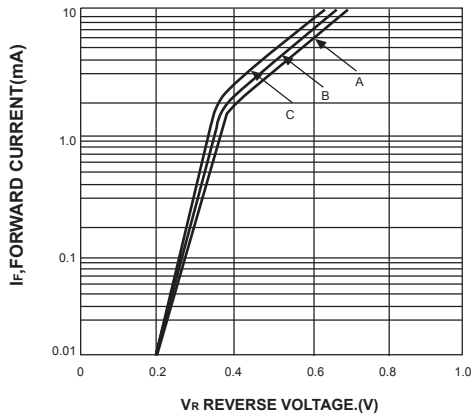


FIG. 3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

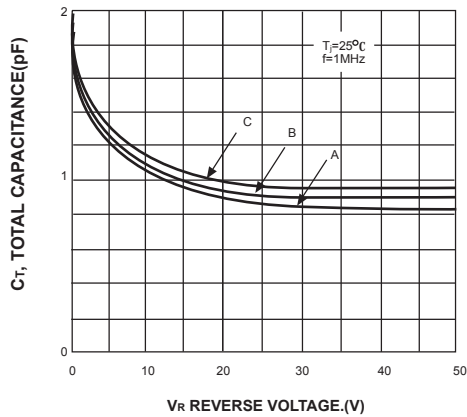


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

