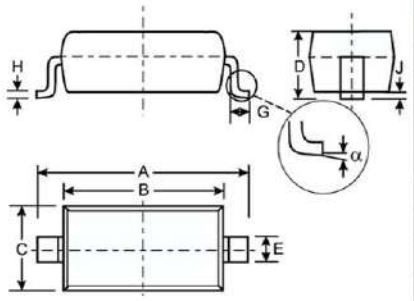
SD101AW--101CW

Features

L.w F.rward V.ltage Dr.p
Guard Ring C.nstructi.n f.r Transient Pr.tecti.n
Negligible Reverse Rec.very Time
Very L.w Reverse Capacitance

Mechanical Data

Case: SOD-123, Plastic
Case material - UL Flammability Rating Classificati.n 94V-0
M.isture sensitivity: Level 1 per J-STD-020A
P.larity: Cath.de Band
Leads: S.lderable per MIL-STD-202, Meth.d 208
Weight: 0.01 grams (appr.x.)
Ordering Inf.rmati.n: See Page 2



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 Dimensi.ns in mm		

Maximum Ratings @ T_A = 25°C unless .therwise specified

Characteristic	Symbol	SD101AW	SD101BW	SD101CW	Unit
Peak Repetitive Reverse V.ltage W.rking Peak Reverse V.ltage DC Bl.cking V.ltage	V_{RRM} V_{RWM} V_R	60	50	40	V
RMS Reverse V.ltage	$V_{R(RMS)}$	42	35	28	V
F.rward C.ntinu.us Current (N.te 1)	I_{FM}	15			mA
N.n-Repetitive Peak F.rward Surge Current @ t ≤ 1.0s @ t = 10μs	I_{FSM}	50 2.0			mA A
P.wer Dissipati.n (N.te 1)	P_d	400			mW
Thermal Resistance, Juncti.n t. Ambient Air (N.te 1)	$R_{\theta JA}$	300			°C/W
Operating and St.rage Temperature Range	T_j, T_{STG}	-65 t. +125			°C

Electrical Characteristics @ T_A = 25°C unless .therwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Reverse Breakd.wn V.ltage (N.te 2)	SD101AW SD101BW SD101CW	$V_{(BR)R}$	60 50 40	—	V	I_R = 10μA I_R = 10μA I_R = 10μA
F.rward V.ltage Dr.p (N.te 2)	SD101AW SD101BW SD101CW SD101AW SD101BW SD101CW	V_{FM}	—	0.41 0.40 0.39 1.00 0.95 0.90	V	I_F = 1.0mA I_F = 1.0mA I_F = 1.0mA I_F = 15mA I_F = 15mA I_F = 15mA
Peak Reverse Current (N.te 2)	SD101AW SD101BW SD101CW	I_{RM}	—	200	nA	V_R = 50V V_R = 40V V_R = 30V
T.tal Capacitance	SD101AW SD101BW SD101CW	C_T	—	2.0 2.1 2.2	pF	V_R = 0V, f = 1.0MHz
Reverse Rec.very Time		t_{rr}	—	1.0	ns	I_F = I_R = 5.0mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

N.tes: 1. Part m.unted .n FR-4 b.ard with rec.mmended pad lay.ut.

2. Sh.rt durati.n test pulse used t. minimize self-heating effect.

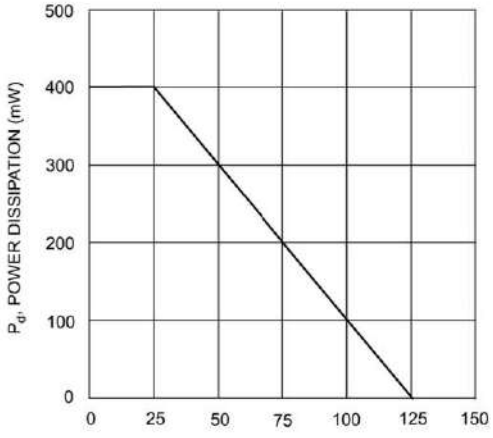


Fig.1 Power Derating Curve

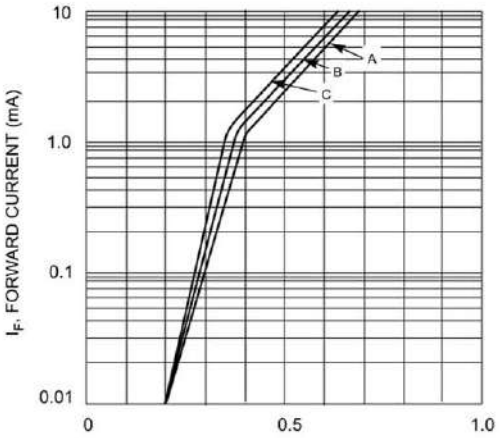


Fig. 2 Typical Forward Characteristic

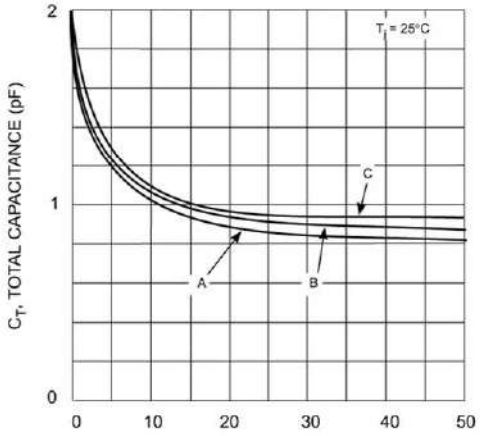


Fig. 3 Typ. Total Capacitance vs Reverse Voltage

Ordering Information

Device	Packaging	Shipping
SD101AW	SOD-123	3000/Tape and Reel
SD101BW	SOD-123	3000/Tape and Reel
SD101CW	SOD-123	3000/Tape and Reel