WEITRON

SD101AW/BW/CW

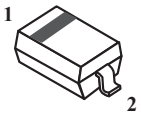
Surface Mount Schottky Barrier Diodes

Lead(Pb)-Free

SMALL SIGNAL
SCHOTTKY DIODES
50m AMPERES
40-60 VOLTS

Features:

* Low Forward Voltage
* Guard Ring Construction for Transient protection
* Negligible Reverse Recovery Time



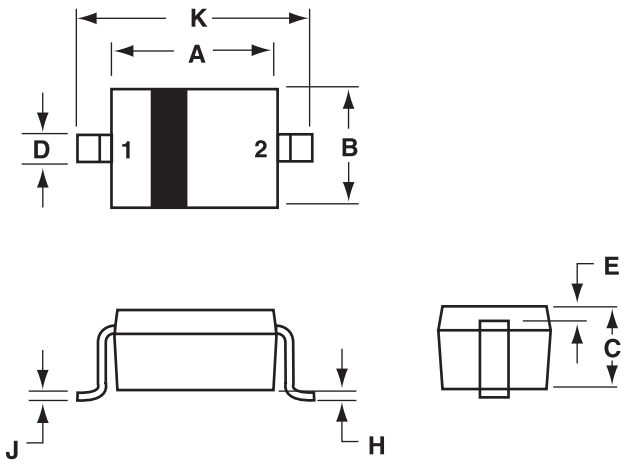
SOD-123

Mechanical Data:

* Polarity: Cathode Band
* Leads: Solderable per MIL-STD-202 Method 208
* Wight: 0.01grams(approx)

SOD-123 Outline Dimensions

Unit:mm



SOD-123		
Dim	Min	Max
A	2.55	2.85
B	1.40	1.80
C	0.95	1.35
D	0.50	0.70
E	0.30 REF	
H	-	0.10
J	-	0.15
K	3.55	3.85

PIN 1. CATHODE
2. ANODE

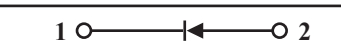
Maximum Ratings (TA=25°C Unless Otherwise note)

Rating	Symbol	SD101AW	SD101BW	SD101CW	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Vlotage	V_{RRM} V_{RWM} V_R	60	50	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	35	28	V
Forward Continuous Current	I_{FM}	15			mA
Non-Repetitive Peak Forward Surge Current @ t<1.0s @ t=10μs	I_{FSM}	50 2000			mA
Total Device Dissipation	P_D	400			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	300			K/W
Junction and Storage Temperature	T_J	+ 125			°C
Storage Temperature	T_{stg}	-65 to +125			°C

Off Characteristics (TA=25°C Unless Otherwise note)

Characterictics	Symbol	Min	Max	Unit
Reverse Breakdown Voltage SD101AW, I_R=10μA SD101BW, I_R=10μA SD101CW, I_R=10μA	$V_{(BR)R}$	 60 50 40	–	V
Forward Voltage SD101AW, I_F=1.0mA SD101BW, I_F=1.0mA SD101CW, I_F=1.0mA SD101AW, I_F=15mA SD101BW, I_F=15mA SD101CW, I_F=15mA	V_F	–	 0.41 0.40 0.39 1.00 0.95 0.90	V
Reverse Voltage Leakage Current V_R=50V V_R=40V V_R=30V	I_{RM}	–	0.2	μA
Diode Capacitance SD101AW, V_R=0V, f=1.0MHz SD101BW, V_R=0V, f=1.0MHz SD101CW, V_R=0V, f=1.0MHz	C_T	–	2.0 2.1 2.2	pF
Revarse Recover Time I_F=I_R=5mA, I_{rr}=0.1 x I_R, R_L=100Ω	t_{rr}	–	1.0	ns

Device Marking

	Eqivalent Circuit diagram
SD101AW = S1 , SD101BW = S2 , SD101CW=S3	

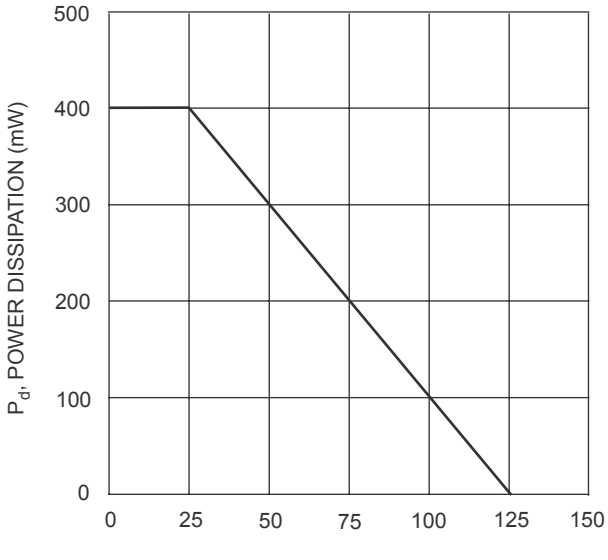


Fig.1 Power Derating Curve

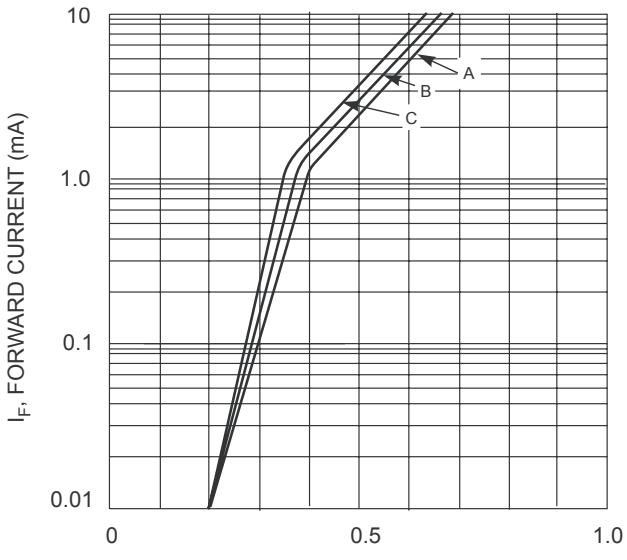


Fig. 2 Typical Forward Characteristic

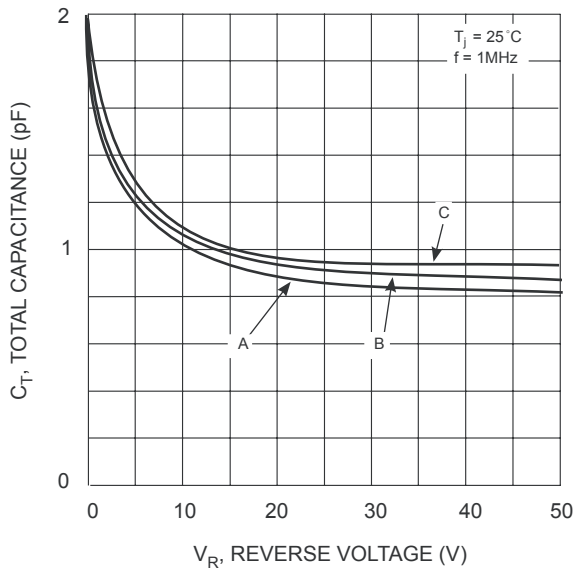


Fig. 3 Typical Total Capacitance vs Reverse Voltage

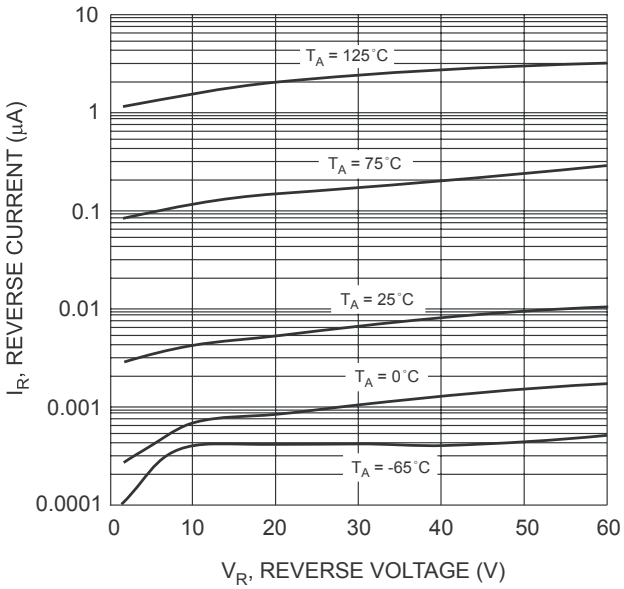


Fig. 4 Typical Reverse Characteristics