

## SCHOTTKY BARRIER DIODE

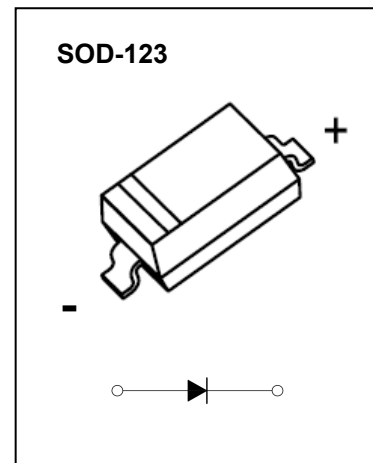
## FEATURES

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

## MARKING: S1



The marking bar indicates the cathode



## Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

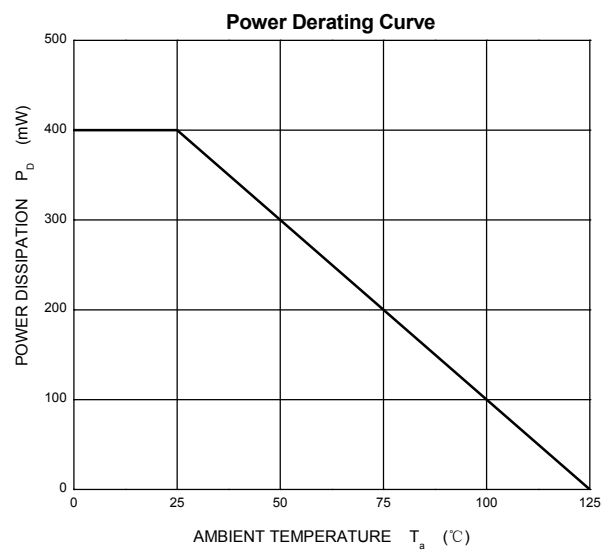
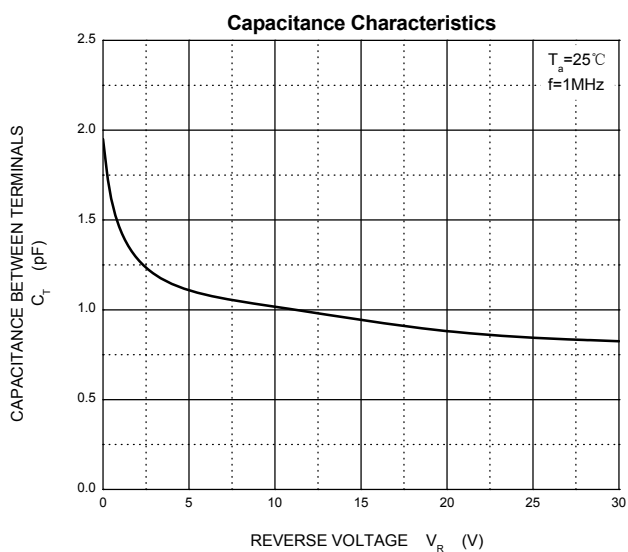
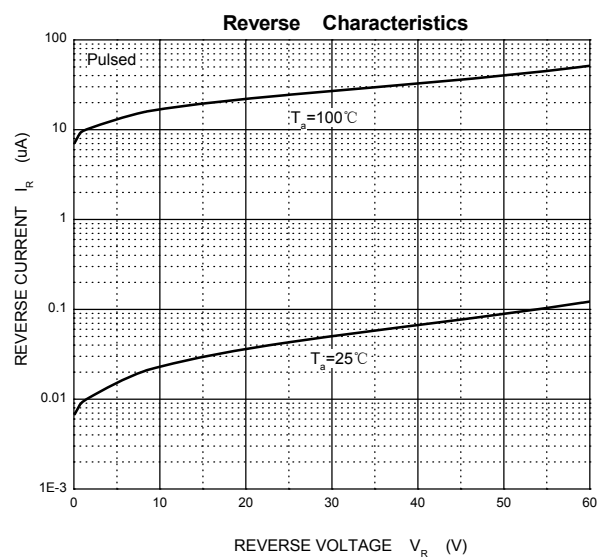
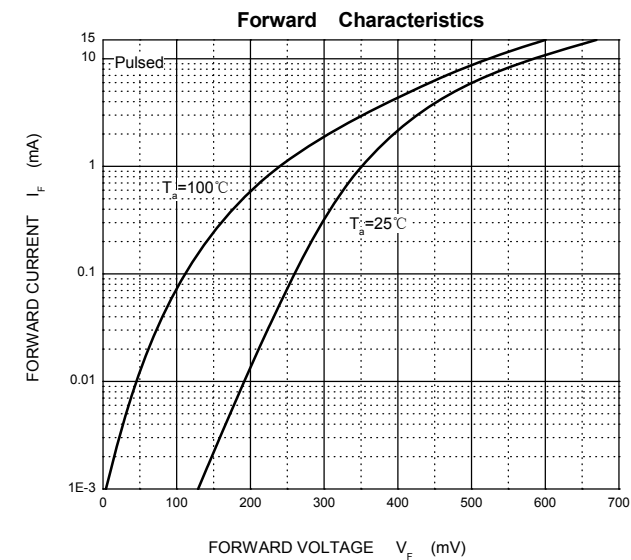
Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Forward Continuous Current	$I_{FM}$	15	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_d$	400	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	°C/W
Junction temperature	$T_j$	125	°C
Storage Temperature	$T_{STG}$	-55~+150	°C

## Electrical Ratings @Ta=25°C

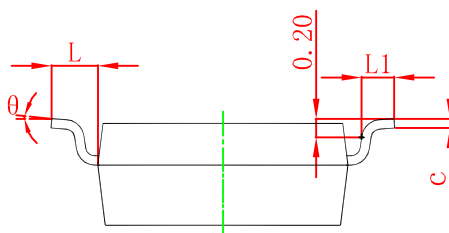
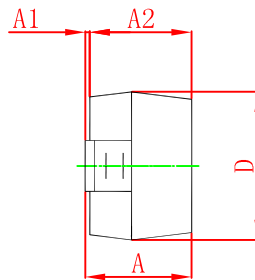
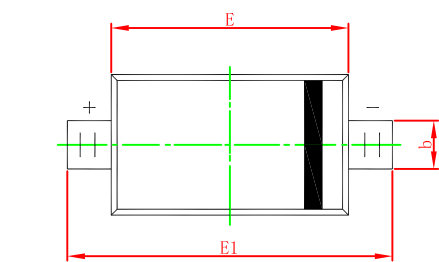
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_R$	60			V	$I_R=10\mu A$
Forward voltage	$V_F$			0.41 1.00	V	$I_F=1.0mA$ $I_F=15mA$
Reverse current	$I_{RM}$			0.2	$\mu A$	$V_R=50V$
Capacitance between terminals	$C_T$			2.0	pF	$V_R=0V, f=1.0MHz$
Reverse recovery time	$t_{rr}$			1.0	ns	$I_F=I_R=5mA$ $I_{rr}=0.1I_R, R_L=100\Omega$



## Typical Characteristics

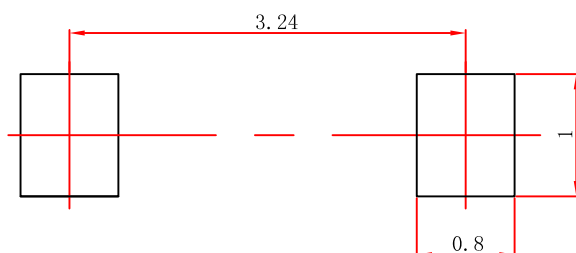


## SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

## SOD-123 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.