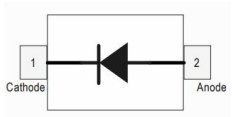
Features：

- Low Forward Voltage Drop;
- Guard Ring Construction for Transient Protection;
- Low Reverse Recover Time;
- Low Reverse Capacitance;



SOD523



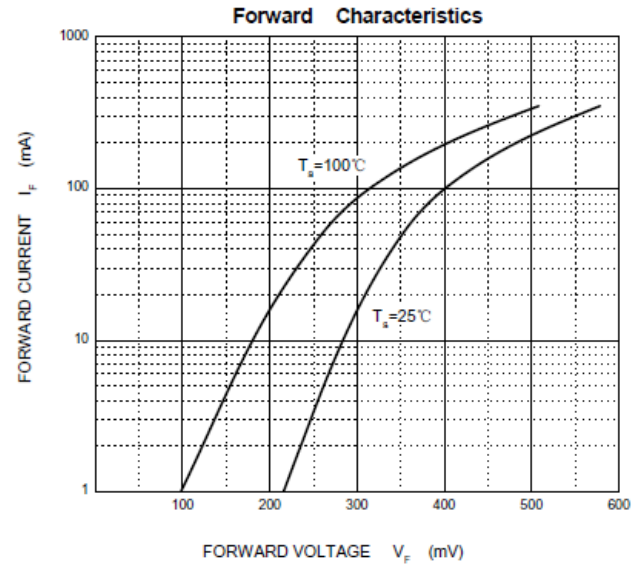
Marking: S4

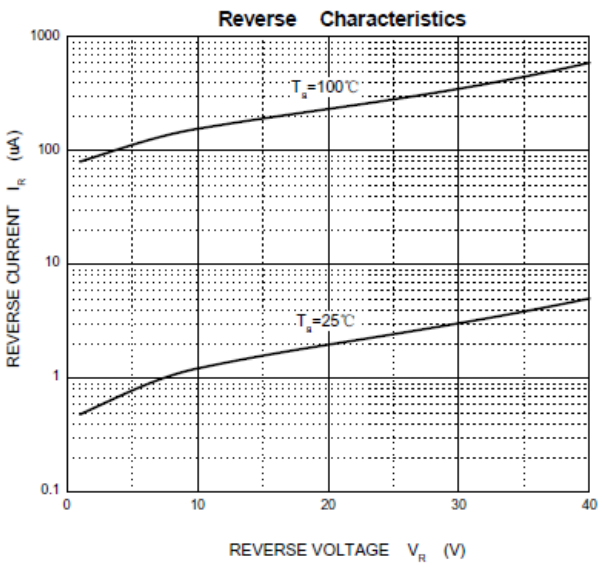
MAXIUM RATINGS (Ta=25℃ unless otherwise noted)

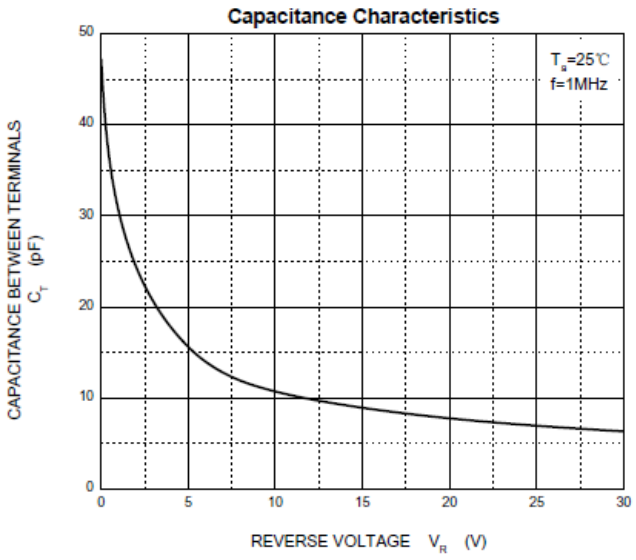
Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous current	I_O	350	mA
Repetitive Peak Forward Current @t≤1S	I_{FRM}	1	A
Non- Repetitive Peak Forward Surge Current @t≤8.3mS Half Sine Wave	I_{FSM}	15	A
Power Dissipation	P_d	150	mW
Thermal Resistance Junction To Ambient	$R_{\theta JA}$	667	℃/mW
Junction Temperature	Tstg	125	℃
Storage Temperature	Tstg	-55～150	℃

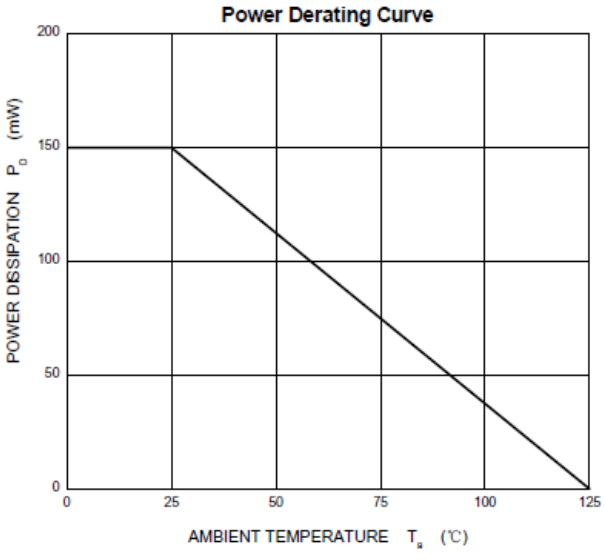
ELECTRIAL CHARACTERISTICS (Ta=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	$V_{(BR)}$	I_R=100 u A	40			V
Reverse current	I_R	V_R=30V			5	u A
		V_R=20V			2	
		V_R=30V			5	
Forward Voltage	V_F	I_F=1mA		0.27		V
		I_F=5mA		0.32		
		I_F=20mA			0.37	
		I_F=200mA			0.6	
Diode Capacitance	C_D	V_R=4V, f=1.0MHz		50		pF
Recover Reverse Time	t_{rr}	I_F=I_R=200mA, I_{rr}=0.1×I_R, R_L=100Ω		10		nS


Forward Characteristics
FORWARD CURRENT I_F (mA)
1000
100
10
1
T_a=100℃
T_a=25℃
100
200
300
400
500
600
FORWARD VOLTAGE V_F (mV)

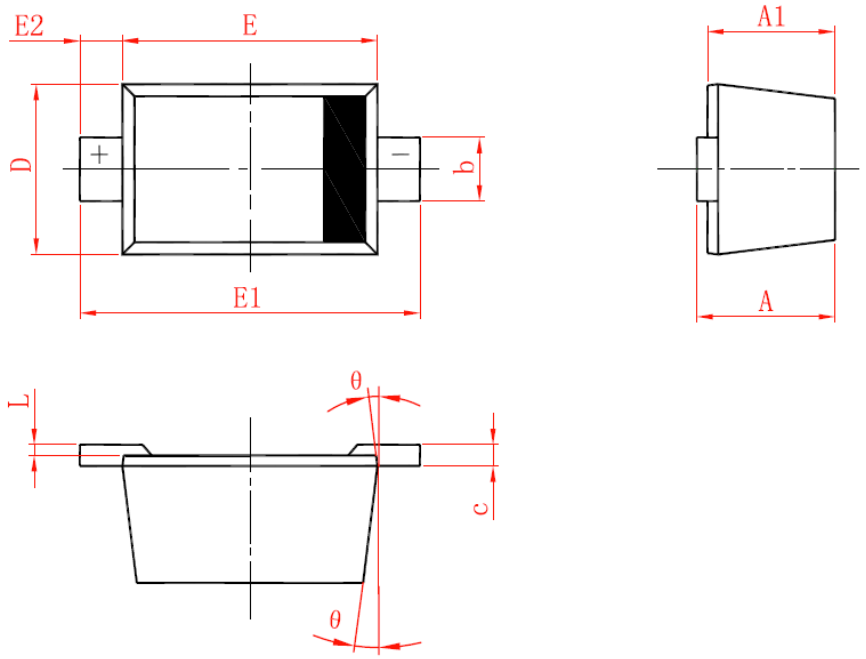

Reverse Characteristics
REVERSE CURRENT I_R (uA)
1000
100
10
1
0.1
T_a=100℃
T_a=25℃
0
10
20
30
40
REVERSE VOLTAGE V_R (V)


Capacitance Characteristics
CAPACITANCE BETWEEN TERMINALS C_T (pF)
50
40
30
20
10
0
T_a=25℃
f=1MHz
0
5
10
15
20
25
30
REVERSE VOLTAGE V_R (V)


Power Derating Curve
POWER DISSIPATION P_D (mW)
200
150
100
50
0
0
25
50
75
100
125
AMBIENT TEMPERATURE T_a (℃)

Package outline dimensions

SOD-523



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.510	0.640	0.770
A1	0.500	0.600	0.700
b	0.250	0.300	0.350
c	0.080	0.115	0.150
D	0.750	0.800	0.850
E	1.100	1.200	1.300
E1	1.500	1.600	1.700
E2	0.200 Ref		
L	0.010	0.040	0.070
θ	7° Ref		

Recommend land pattern (Unit: mm)

