

SOD-523 Plastic-Encapsulate Diodes

FEATURE

- Ultra small mold type
- Low V_F
- High reliability

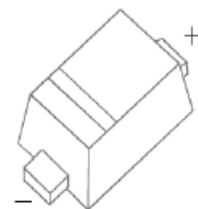
MARKING: S



S=Device code

The marking bar indicates the cathode

SOD-523

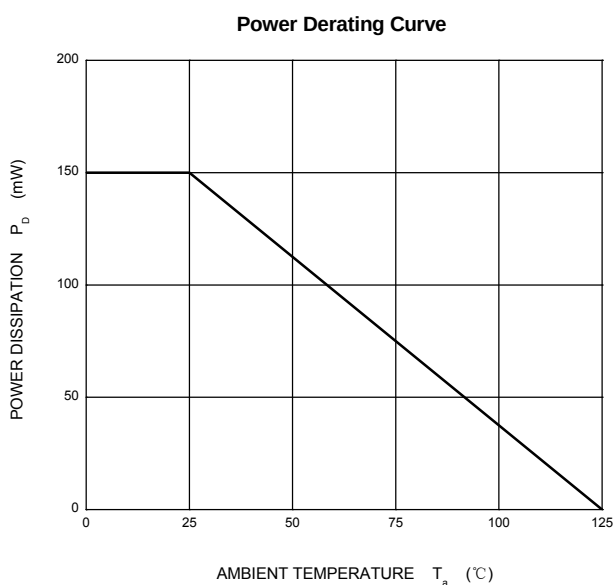
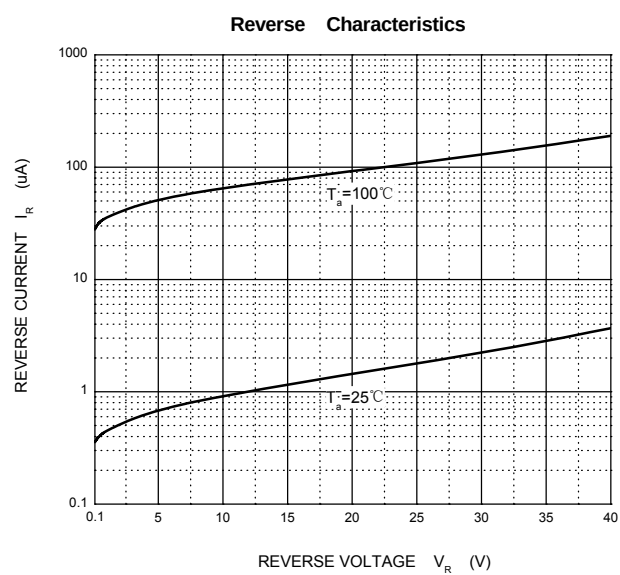
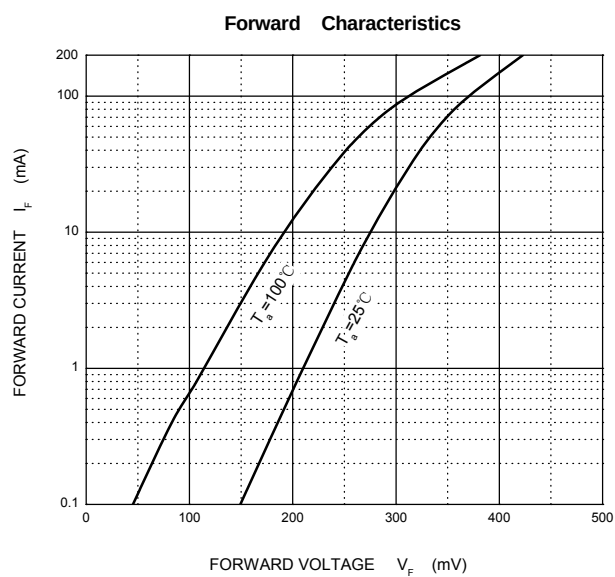
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

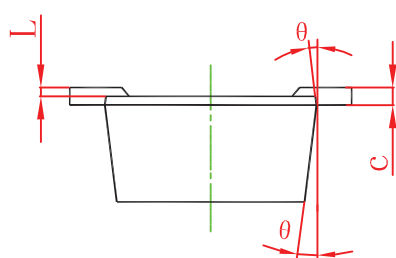
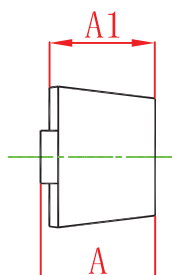
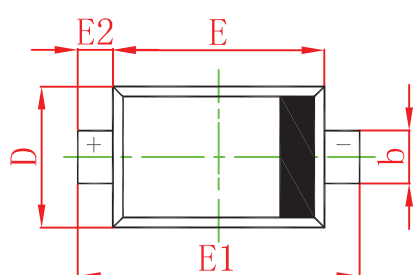
Symbol	Parameter	Value	Unit
V_{RM}	Non-repetitive peak reverse voltage	45	V
V_{RRM}	Peak repetitive reverse voltage	40	V
V_{RWM}	Working peak reverse voltage		
$V_{R(RMS)}$	RMS reverse voltage	28	V
I_o	Average rectified output current	200	mA
I_{FSM}	Non-repetitive peak forward surge current @ $t=8.3\text{ms}$	1	A
P_D	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance from junction to ambient	667	$^\circ\text{C/W}$
T_J	Operating Junction Temperature Range	-40~+125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	40			V
Reverse current	I_R	$V_R=10\text{V}$			20	μA
		$V_R=40\text{V}$			90	
Forward voltage	V_F	$I_F=10\text{mA}$	0.16		0.3	V
		$I_F=100\text{mA}$	0.31		0.45	
		$I_F=200\text{mA}$	0.41		0.54	

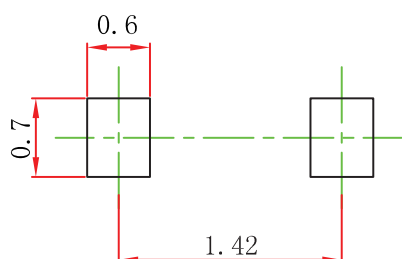
Typical Characteristics





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 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.