

Surface Mount Schottky Barrier Diode

Feature

- High Current Capability
- Low Forward Voltage Drop

SOD-523



Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Marking: S



Maximum Ratings & Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

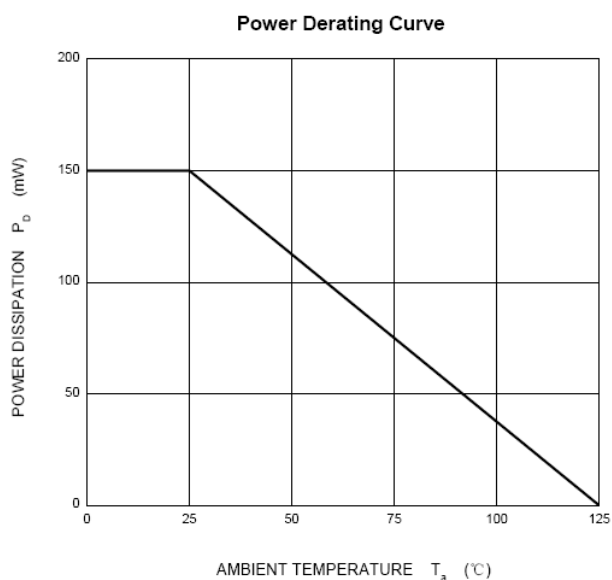
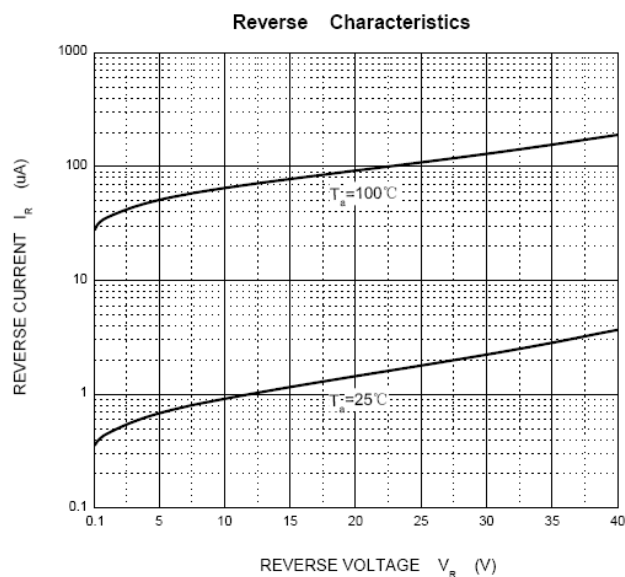
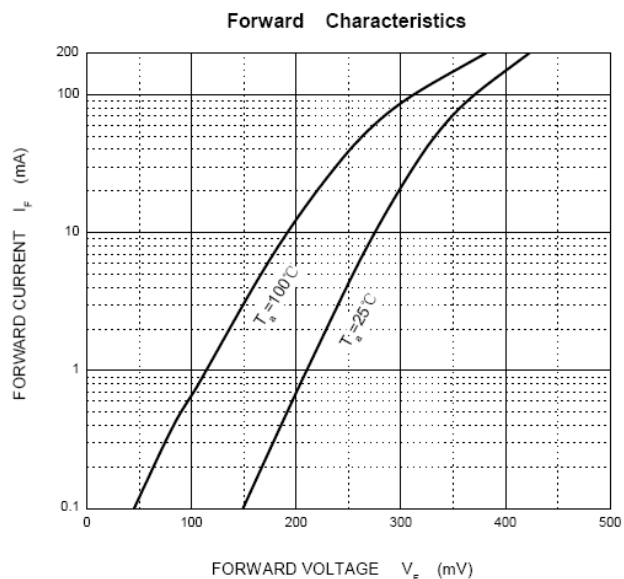
Parameter	Symbol	Limit	Unit
Peak reverse voltage	V_{RM}	45	V
DC reverse voltage	V_R	40	V
Mean rectifying current	I_O	0.2	A
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	1.0	A
Typical thermal resistance	$R_{\theta JA}$	667	$^{\circ}\text{C/W}$
Power Dissipation	P_D	150	mW
Storage temperature range	T_{STG}	-50~+150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

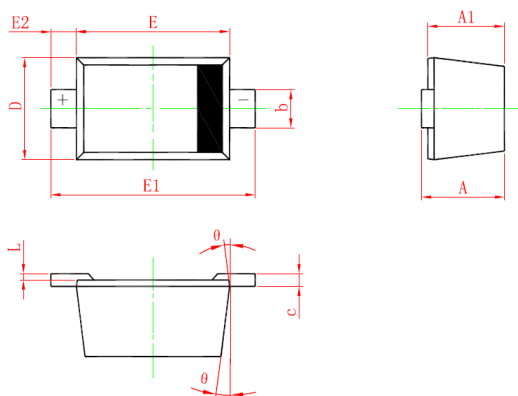
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Maximum forward voltage	V_F	$I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 200\text{mA}$	0.16 0.31 0.41		0.30 0.45 0.54	V
Maximum reverse breakdown voltage	V_R	$I_R=0.1\text{mA}$	40			V
Maximum reverse current	I_R	$V_R=10\text{V}$ $V_R=40\text{V}$			20 90	μA



Characteristic Curves



SOD-523 Package Outline Dimensions



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	0.380	0.010	0.015
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	