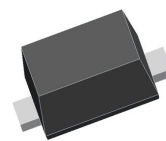


150mW SOD-523 Fast Switching Diode

Features

- Fast Switching Device (TRR <4.0 nS)
- Power Dissipation of 150mW
- High Stability and High Reliability
- Low reverse leakage
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Expsemi electronics



Mechanical Data

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

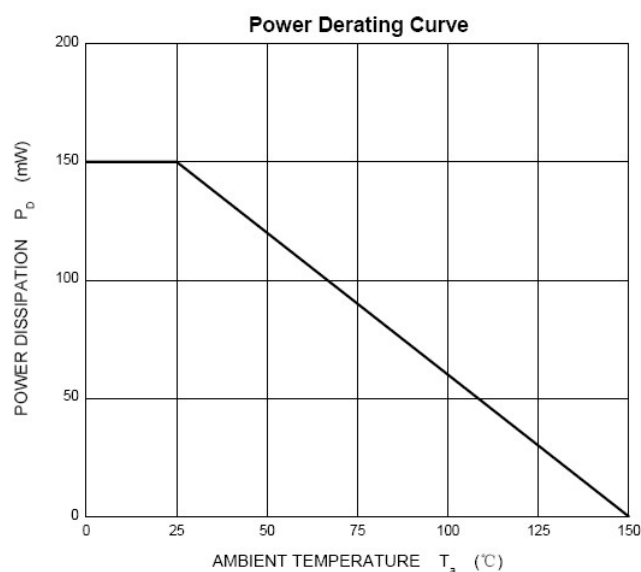
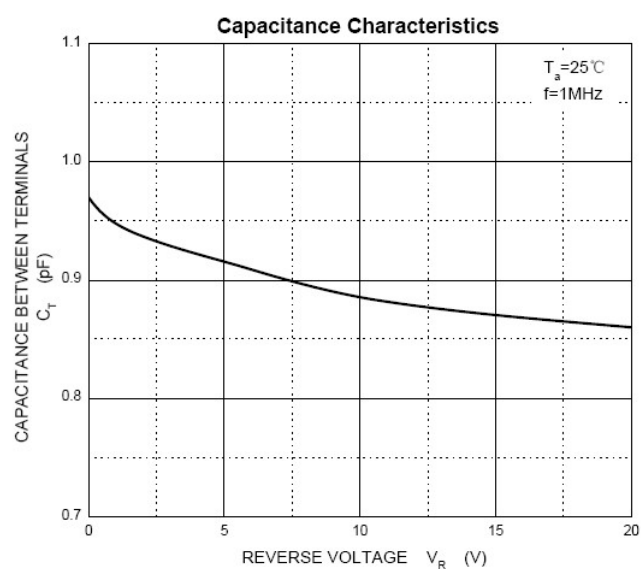
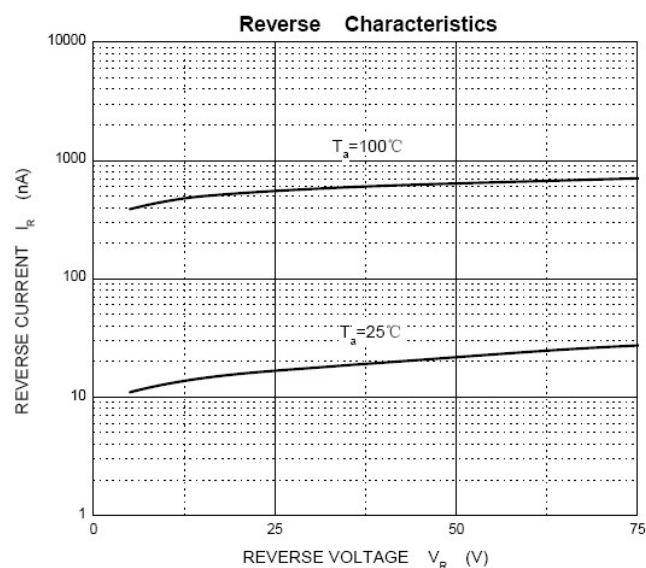
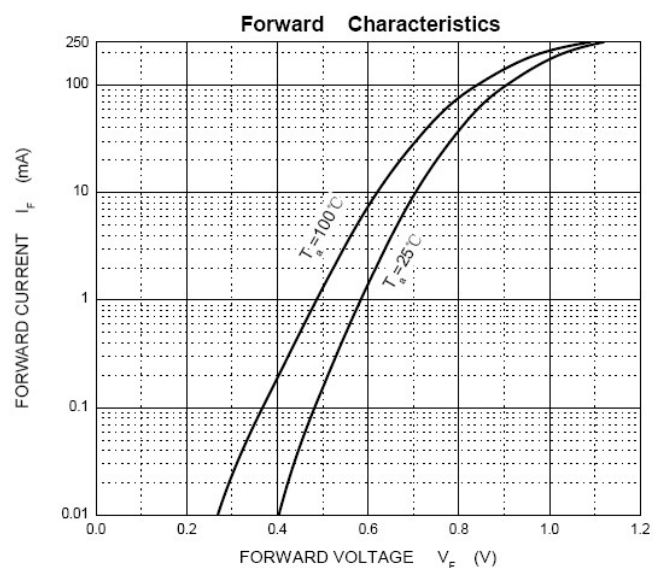
Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Working Inverse Voltage	W_{IV}	75	V
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	P_d	150	mW
Operating junction temperature	T_j	150	°C
Storage temperature range	T_s	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	°C/W
Average Rectified Current	I_o	250	mA
Peak Forward Surge Current @ $t_p=1\mu s$; $T_A=25^\circ C$	I_{FSM}	2.0	A

Valid provided that electrodes are kept at ambient temperature.

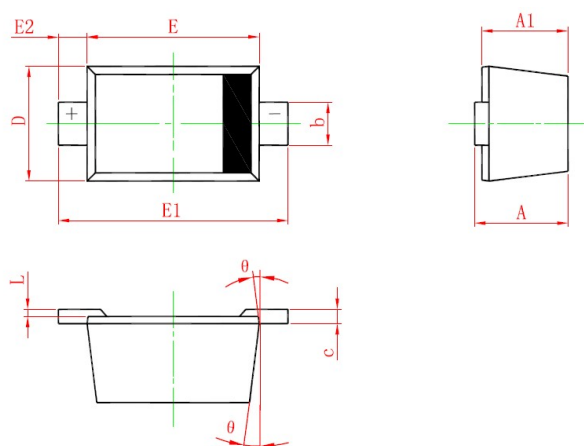
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
VB	Breakdown Voltage	$I_R=100\mu A$	75		V
IR	Reverse Leakage Current	$V_R=25V$	---	30	nA
		$V_R=75$	---	1	μA
VF	Forward Voltage	$I_F=1.0mA$	---	0.715	V
		$I_F=10mA$	---	0.855	
		$I_F=50mA$	---	1.00	
		$I_F=150mA$	---	1.25	
TRR	Reverse Recovery Time	$I_F=I_R=10mA$ $R_L=100\Omega$ $I_{RR}=0.1 \times I_R$	---	4	nS
CT	Capacitance	$V_R=0V$, $f=1MHz$	---	1	pF



SOD-523 PACKAGE OUTLINE

Plastic surface mounted package



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	