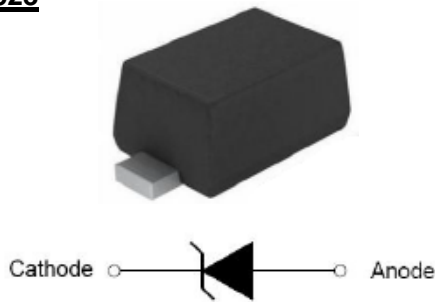


SOD-523

Marking: E1
Features

Fast Switching Device (TRR <4.0 nS)
 Power Dissipation of 200mW
 High Stability and High Reliability
 Low reverse leakage
 Halogen free and RoHS compliant

Mechanical Data

SOD-523 Small Outline Plastic Package
 Polarity: Color band denotes cathode end
 Epoxy UL: 94V-0
 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
Peak Reverse Voltage	V_{RM}	100	V
Power Dissipation	P_d	200	mW
Operating junction temperature	T_j	150	°C
Storage temperature range	T_{STG}	-65-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	250	°C/W
Average Rectified Current	I_o	150	mA
Non-repetitive Peak Forward Current	I_{FM}	300	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

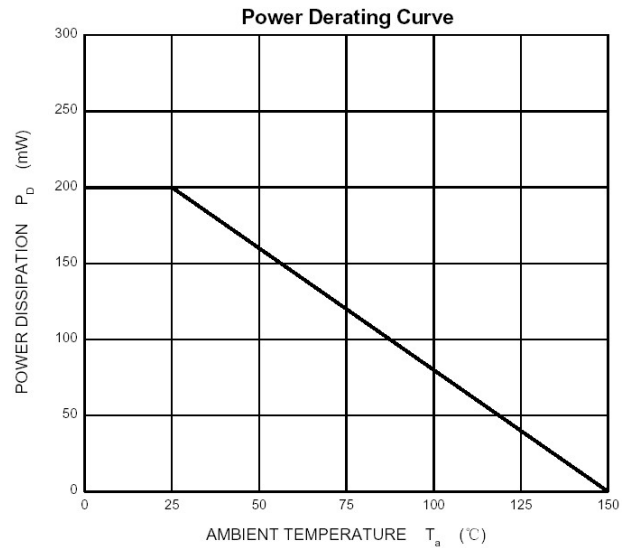
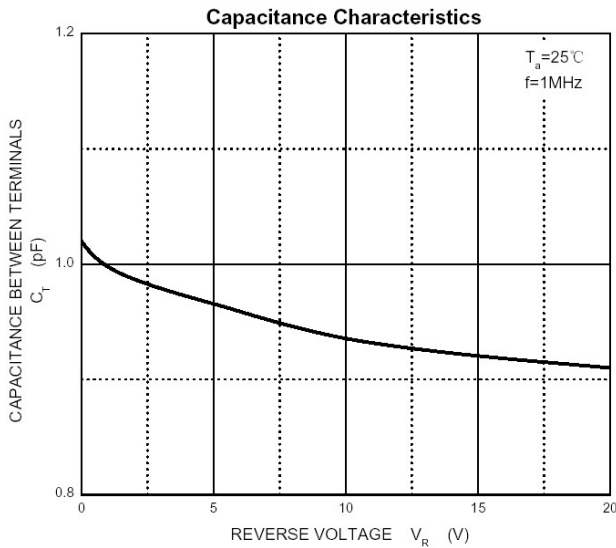
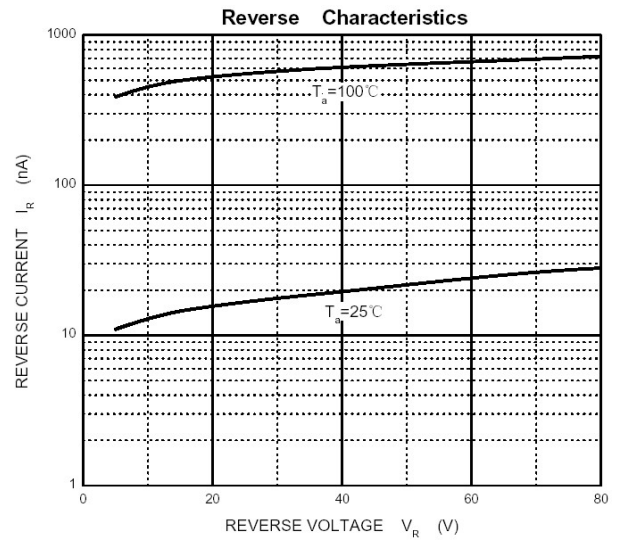
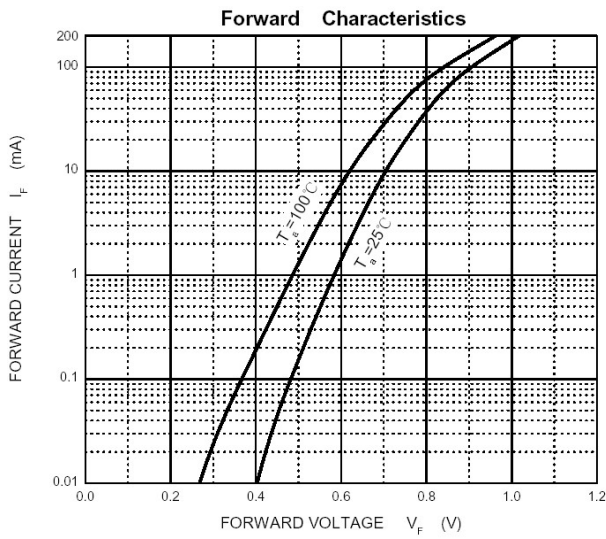
(Ratings at 25°C ambient temperature unless otherwise specified).

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
BV	Breakdown Voltage	$I_R=100\mu A$	100		V
		$I_R=5\mu A$	75		
IR	Reverse Leakage Current	$V_R=20V$	---	25	nA
		$V_R=75$	---	5	uA
VF	Forward Voltage	$I_F=10mA$	---	1.00	V
		$I_F=100mA$	---	1.25	
TRR	Reverse Recovery Time	$I_F = I_R = 10mA,$	---	4	nS
		$I_{rr}=0.1 \times I_R$			
		$R_L=100\Omega$			
C	Capacitance	$V_R=0V, f=1MHz$	---	4	pF

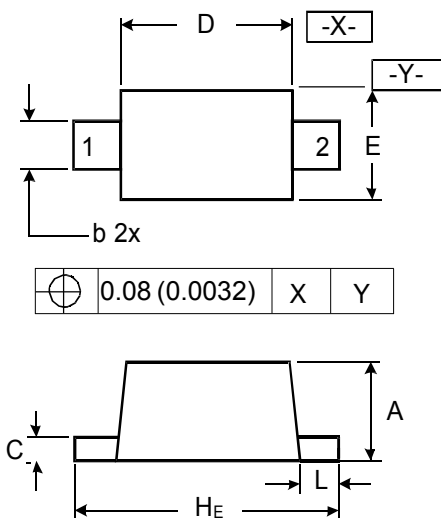
Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-523	Tape/Reel, 7" reel	3000	EIA-481-1

Ratings and Characteristic Curves



Package Outline Dimensions: SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H_E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010