

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 @tp=1us; TA=25°C	I_{FSM}	2.0	A

Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics

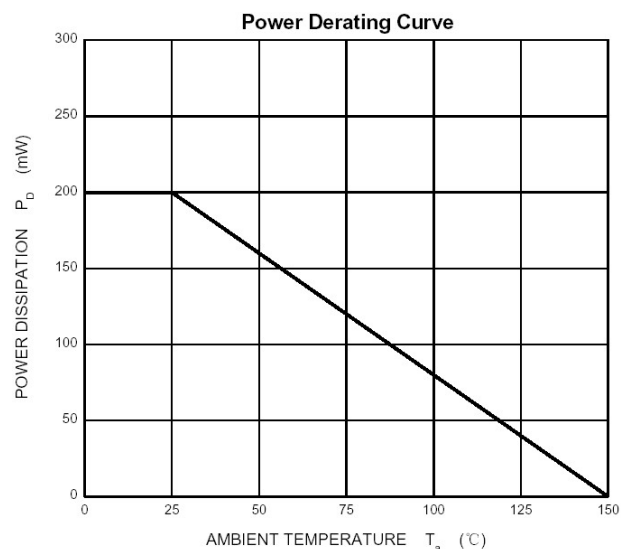
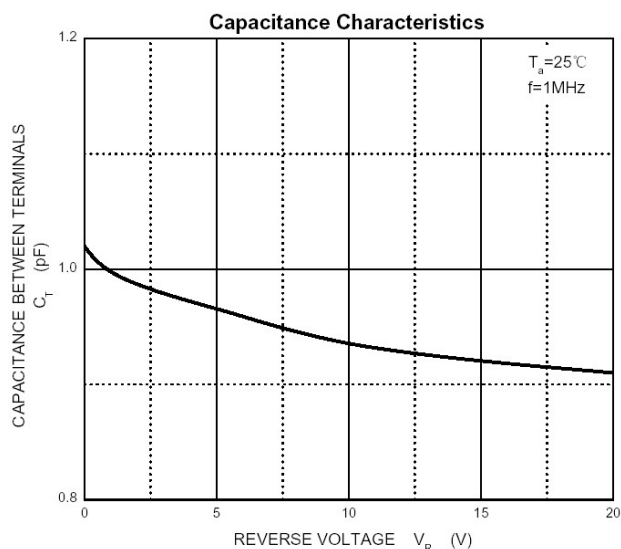
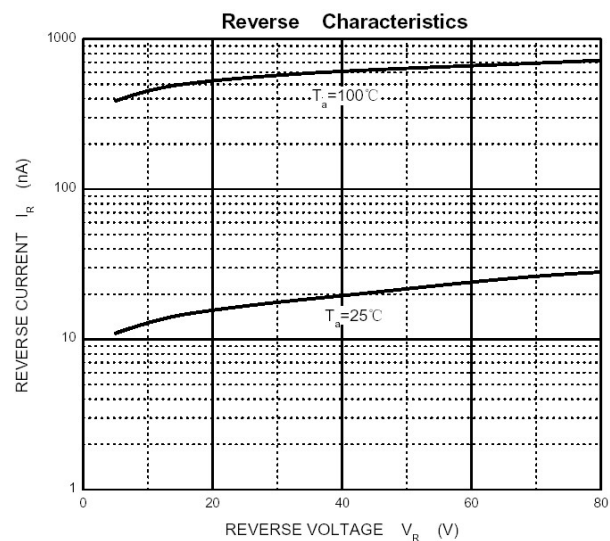
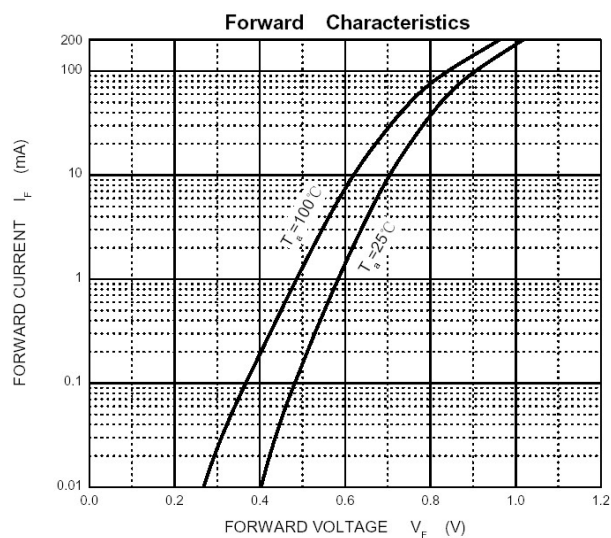
(Ratings at 25°C ambient temperature unless otherwise specified.)

Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
BV	Breakdown Voltage	IR=100uA	100		V
		IR=5uA	75		
IR	Reverse Leakage Current	VR=20V	---	25	nA
		VR=75V	---	5	uA
VF	Forward Voltage	IF=10mA	---	1.00	V
		IF=100mA	---	1.25	
TRR	Reverse Recovery Time	IF = IR = 10mA,	---	4	nS
		Irr=0.1XIR			
		RL=100Ω			
C	Capacitance	VR=0V, f=1MHZ	---	4	pF

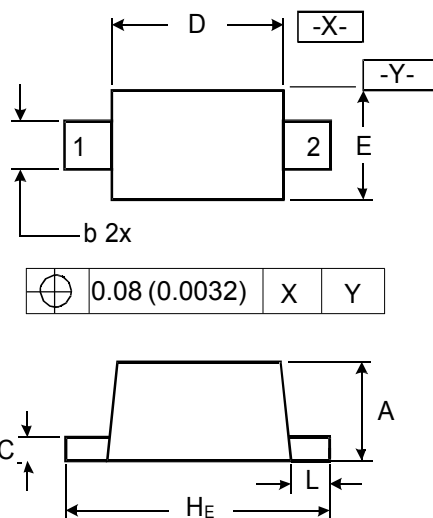
Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-523	Tape/Reel, 7" reel	5000	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