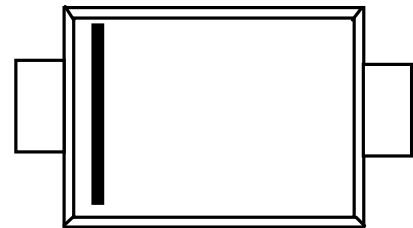


»Features

- Fast Switching Device (TRR <4.0 nS)
- Power Dissipation of 500mW
- High Stability and High Reliability
- Low reverse leakage

»General Description

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



SOD-523

»Absolute Maximum Ratings @TA=25°C unless otherwise noted

Parameters	Symbol	Value	Unit
Reverse Voltage	$V_R$	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	$T_{STG}$	-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

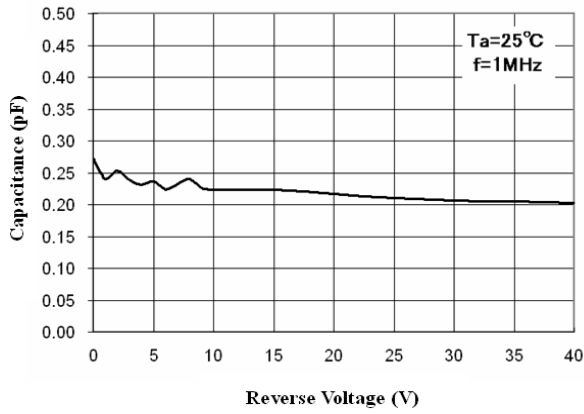
Valid provided that electrodes are kept at ambient temperature.

**»Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise noted**

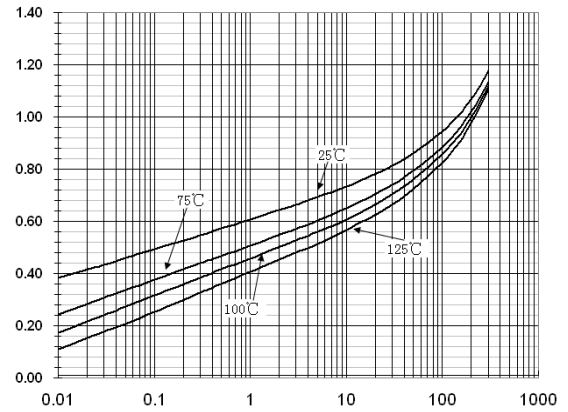
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
<b>BV</b>	Breakdown Voltage	IR=100uA	100		V
		IR=5uA	75		
<b>IR</b>	Reverse Leakage Current	VR=20V	---	25	nA
		VR=75	---	5	uA
<b>VF</b>	Forward Voltage	IF=5mA	0.62	0.72	V
		IF=10mA	---	1.00	
		IF=100mA	---	1.25	
<b>TRR</b>	Reverse Recovery Time	IF = IR = 10mA,	---	4	nS
		Irr=0.1XIR			
		RL=100Ω			
<b>C</b>	Capacitance	VR=0V, f=1MHZ	---	4	pF

»Typical Performance Characteristics (T<sub>J</sub> = 25 °C, unless otherwise noted)

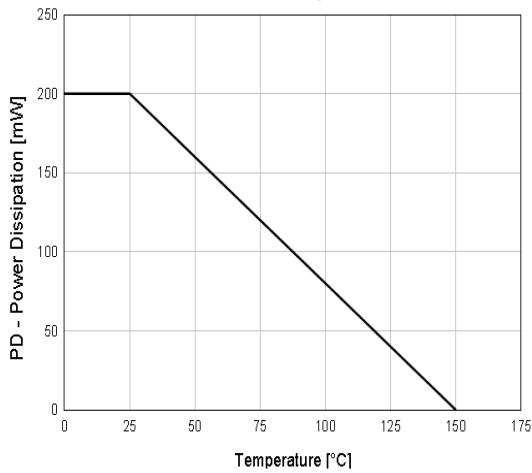
**Total Capacitance**



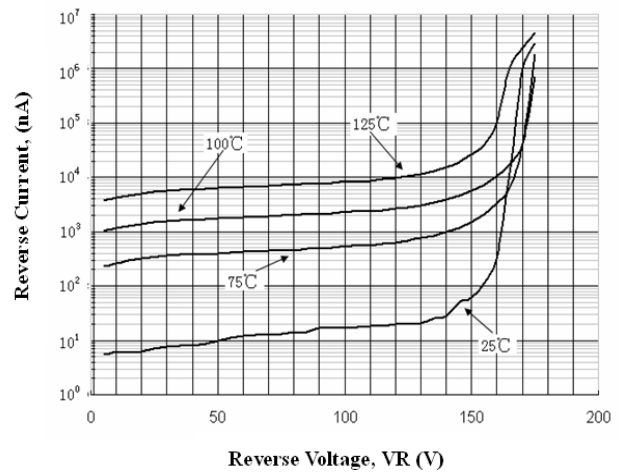
**Forward Voltage vs Ambient Temperature**



**Power Derating Curve**

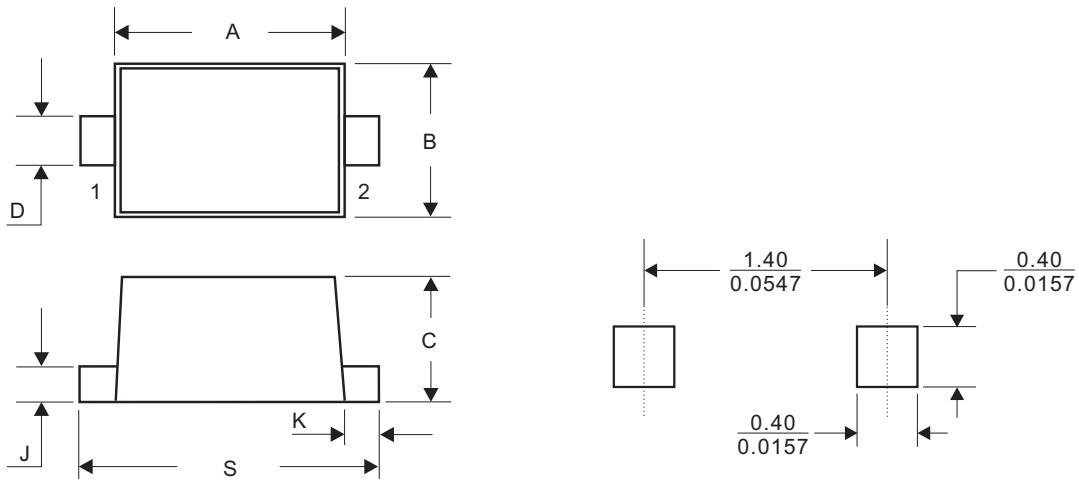


**Reverse Current vs Reverse Voltage**



»Package Information

**SOD-523**



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	0.50	0.70	0.020	0.028
D	0.25	0.35	0.010	0.014
J	0.07	0.20	0.0028	0.0079
K	0.15	0.25	0.006	0.010
S	1.50	1.70	0.059	0.067

»Ordering information

Order code	Package	Marking	Base qty	Delivery mode
1N4148WT	SOD-523	E1	3K	Tape and reel