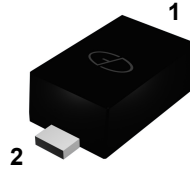
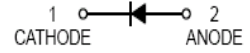


## Features

- Fast Switching Speed
- Ultra-small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance



Package: SOD-523



Schematic Diagram

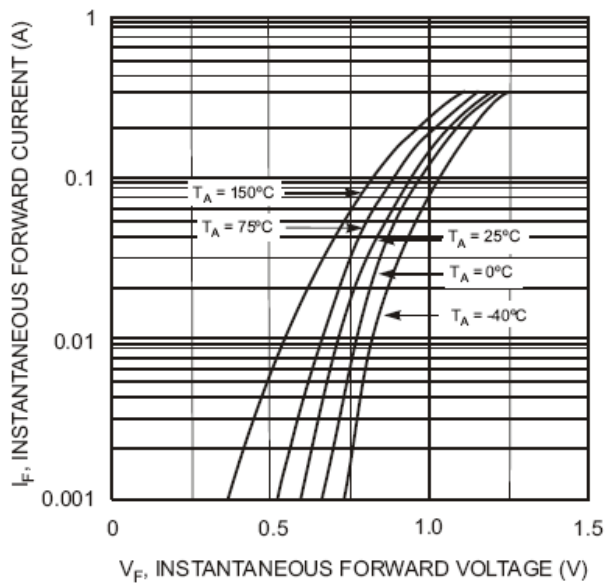
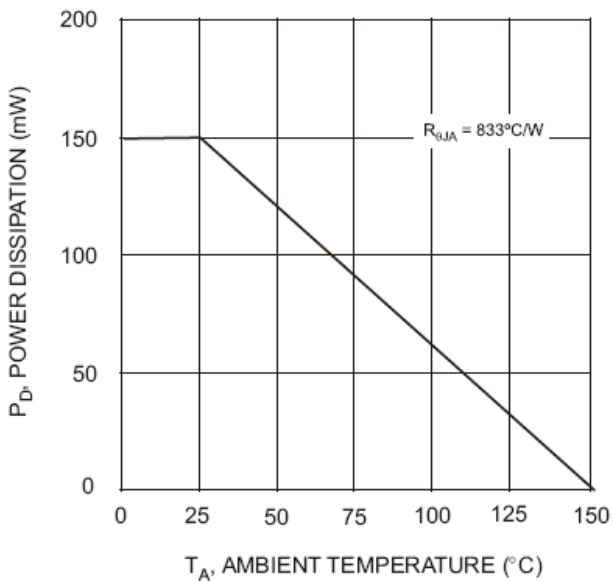
## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	80	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	80	V
Average Rectified Output Current	I <sub>o</sub>	125	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs	I <sub>FSM</sub>	2.0	A
@t=100 ms		1.0	
Power Dissipation	P <sub>D</sub>	150	mW
Thermal Resistance Junction to Ambient Air	R <sub>θJA</sub>	833	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

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

Parameter	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	$I_R=1.0\mu\text{A}$
Forward Voltage	$V_F$	-	0.715 0.855 1.0 1.25	V	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$
Reverse Current	$I_R$	-	1.0 25	$\mu\text{A}$ nA	$V_R=75\text{V}$ $V_R=20\text{V}$
Junction Capacitance	$C_J$	-	2.0	pF	$V_R=0, f=1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	-	4.0	ns	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1\times I_R, R_L=100\Omega$

**Typical Electrical Characteristic Curves**



**Typical Electrical Characteristic Curves**

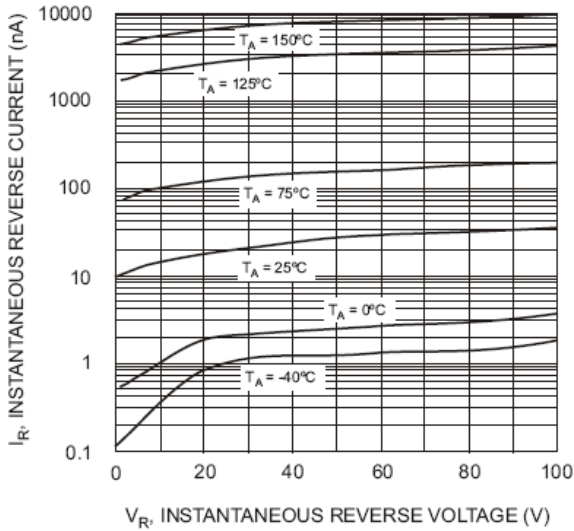


Fig. 3 Typical Reverse Characteristics

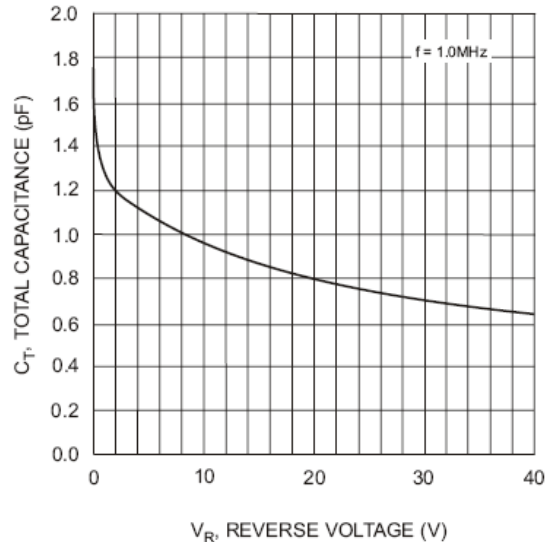


Fig. 4 Typical Capacitance vs. Reverse Voltage

**Package Outline Dimensions SOD-523**

SOD-523		
Dim	Min	Max
A	1.1	1.3
B	0.7	0.9
C	0.5	0.7
D	0.3 Typical	
E	0.15	0.25
J	0.1 Typical	
K	1.5	1.7
All Dimensions in mm		

**Marking and Ordering Information**

Device	Package	Carrier	Quantity	Marking
1N4148WT	SOD-523	Tape & Reel	3,000pcs / Reel	T4