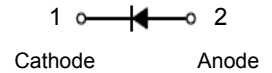
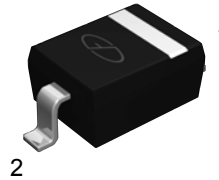


## Features

- Fast switching speed
- Very small surface mount package
- For general purpose switching applications
- High conductance



SOD-323

Schematic Diagram

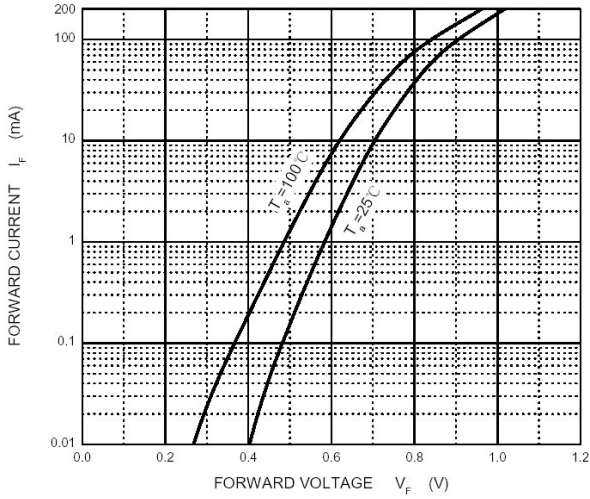
## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>R</sub>	75	V
Working Peak Reverse Voltage			
DC Reverse Voltage			
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Average Rectified Output Current	I <sub>O</sub>	150	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Non-Repetitive Peak Forward Surge Current, @t=1.0us	I <sub>FSM</sub>	2.0	A
Non-Repetitive Peak Forward Surge Current, @t=1.0s		1	
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance, Junction-to-Ambient	R <sub>θJA</sub>	625	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 To +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 To +150	°C

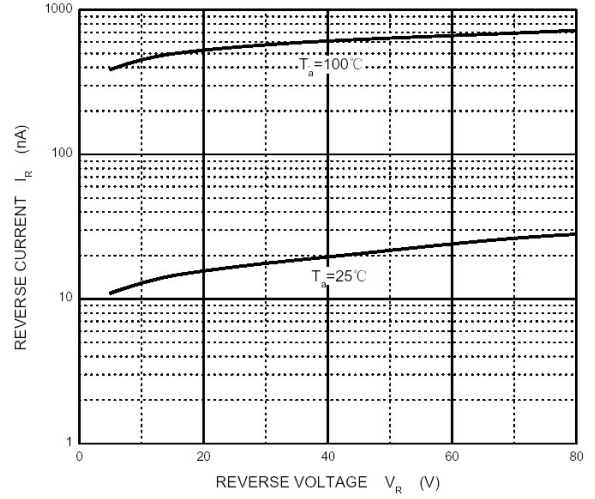
## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =5.0μA	75	-	V
		I <sub>R</sub> =100μA	100	-	
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA	-	0.72	V
		I <sub>F</sub> =10mA	-	0.86	
		I <sub>F</sub> =50mA	-	1	
		I <sub>F</sub> =150mA	-	1.25	
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =75V	-	1	μA
		V <sub>R</sub> =20V	-	25	nA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0, f=1MHz	-	2	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω, I <sub>RR</sub> =0.1×I <sub>R</sub>	-	4	ns

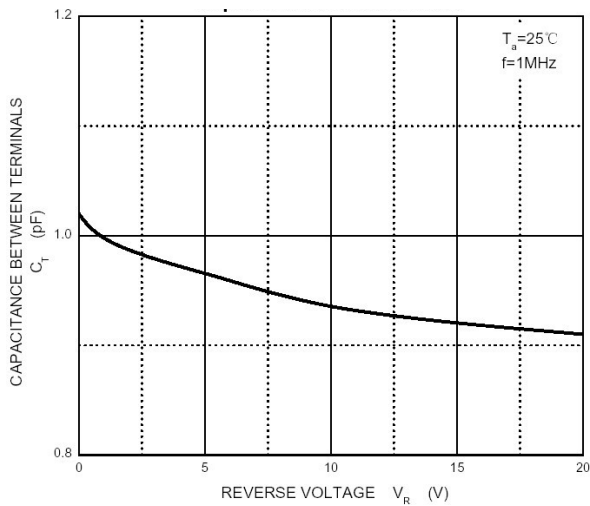
**Typical Electrical Characteristic Curves**



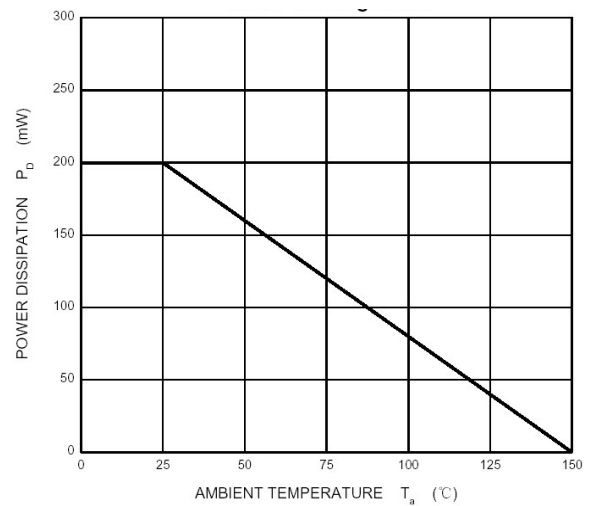
**Figure 1. Forward Characteristics**



**Figure 2. Reverse Characteristics**

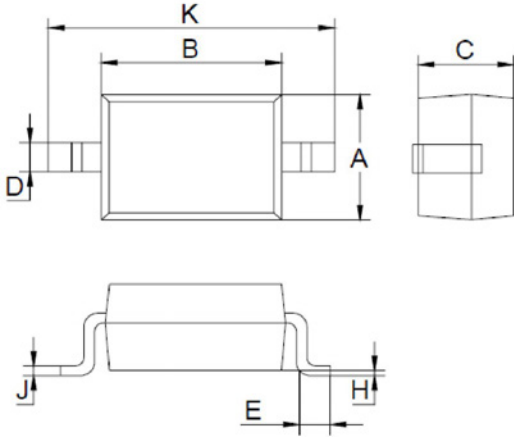


**Figure 3. Capacitance Characteristics**



**Figure 4. Power Derating Curve**

**Package Outline Dimensions (SOD-323)**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.200	1.400	0.047	0.055
B	1.600	1.800	0.063	0.071
C	0.800	0.900	0.031	0.035
D	0.250	0.350	0.010	0.014
E	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004
J	0.100 TYP		0.004 TYP	
K	2.500	2.700	0.098	0.106

**Order Information**

Device	Package	Marking	Carrier	Quantity
1N4148WS	SOD-323	T4	Tape & Reel	3,000pcs / Reel