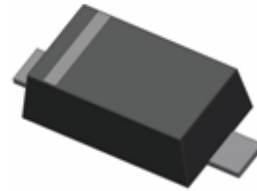
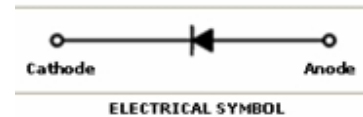


## 200mW SOD-323 SURFACE MOUNT Small Outline Flat Lead Plastic Package Fast Switching Diode

Green Product



SOD-323 Flat Lead



### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	200	mW
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	+150	$^\circ\text{C}$
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	100	V
$V_{RRM}$	Repetitive Peak Reverse Voltage	75	V
$I_{FRM}$	Repetitive Peak Forward Current	300	mA
$I_O$	Continuous Forward Current	150	mA
$I_{FSM}$	Peak Forward Surge Current (Pulse Width=1us)	2	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

### Specification Features:

- § Fast Switching Device ( $T_{RR} < 4.0 \text{ nS}$ )
- § General Purpose Diodes
- § Flat Lead SOD-323 Small Outline Plastic Package
- § Surface Device Type Mounting
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish
- § Band Indicates Cathode

### DEVICE MARKING CODE:

Device Type	Device Marking
1N4148WS	T4
1N4448WS	T5
1N914BWS	T6

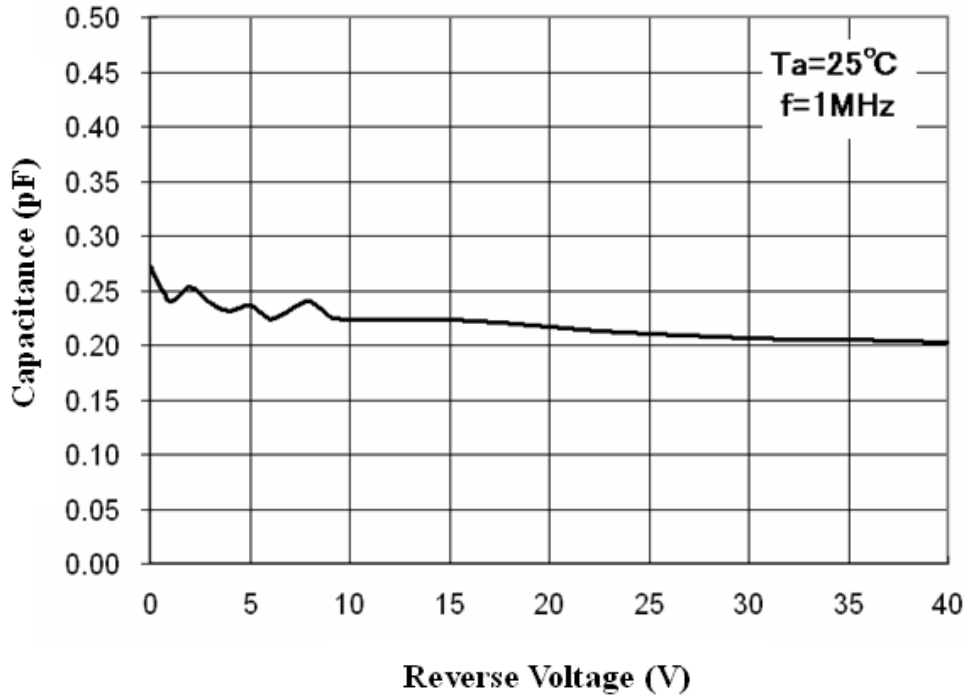


### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

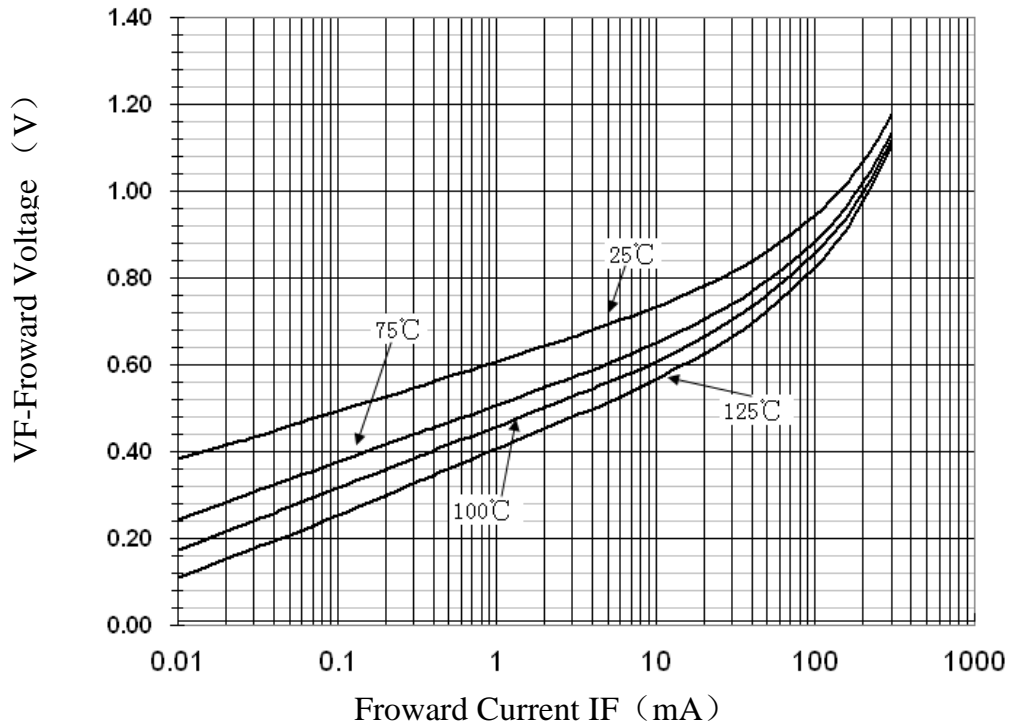
Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
$I_R$	Reverse Leakage Current	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5	$\mu\text{A}$
$V_F$	Forward Voltage	1N4448WS, 1N914BWS $I_F=5\text{mA}$	0.62	0.72	Volts
		1N4148WS $I_F=10\text{mA}$		1.0	
		1N4448WS, 1N914BWS $I_F=100\text{mA}$		1.0	
$T_{RR}$	Reverse Recovery Time	$I_F=10\text{mA}$ $I_R=60\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$		4	nS
$C$	Capacitance	$V_R=0\text{V}, f=1\text{MHz}$		4	pF

## Typical Performance Characteristics

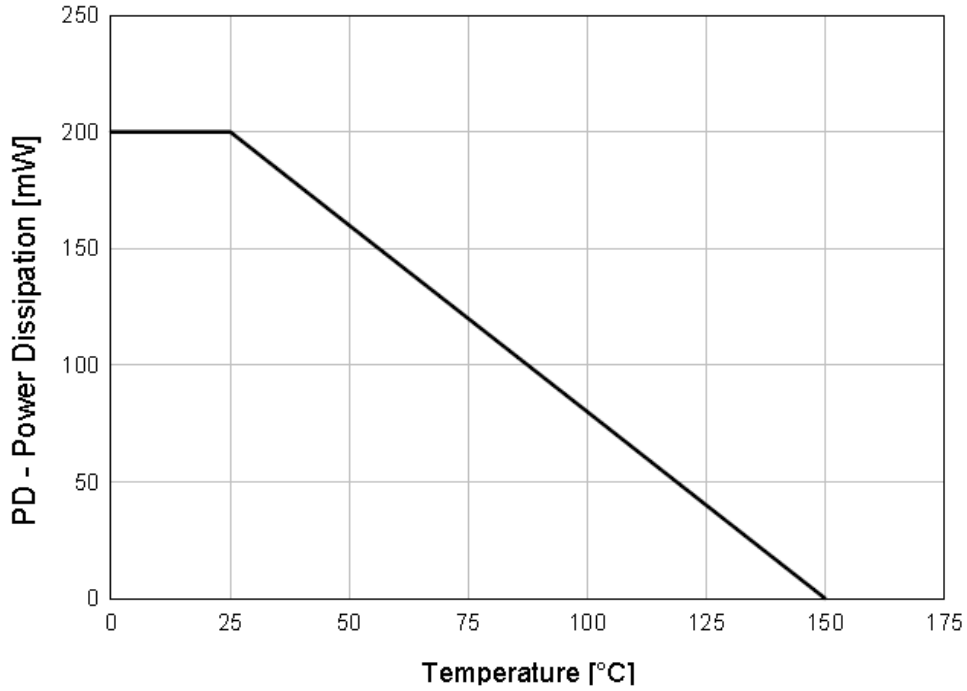
### Total Capacitance



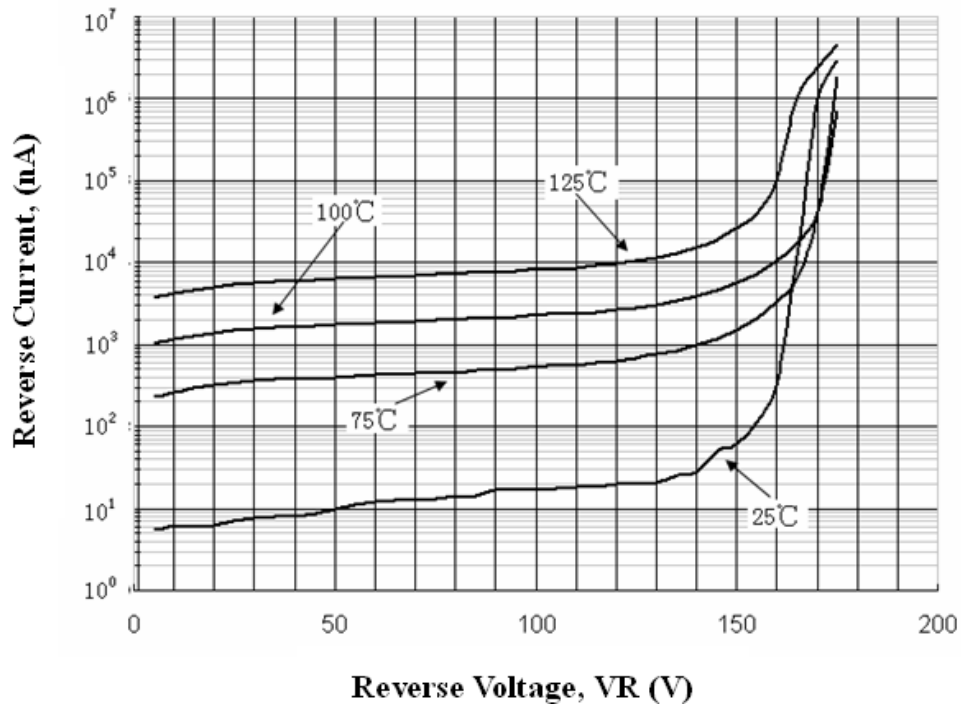
### Forward Voltage vs Ambient Temperature



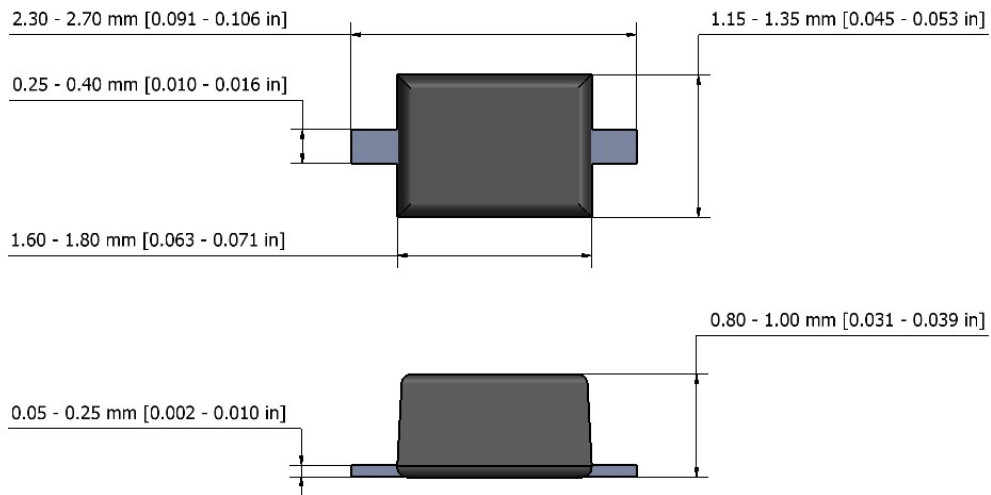
### Power Derating Curve



### Reverse Current vs Reverse Voltage



## SOD-323 Package Outline



**NOTES:**

1. The above package outline is similar to JEITA SC-90.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.



## NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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