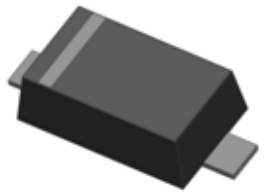
TAK CHEONG®

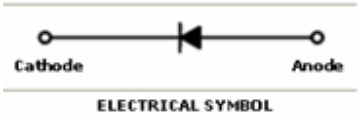
SEMICONDUCTOR

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

Green Product



SOD-323 Flat Lead



ELECTRICAL SYMBOL

Absolute Maximum Ratings
T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	mW
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	+150	°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 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:

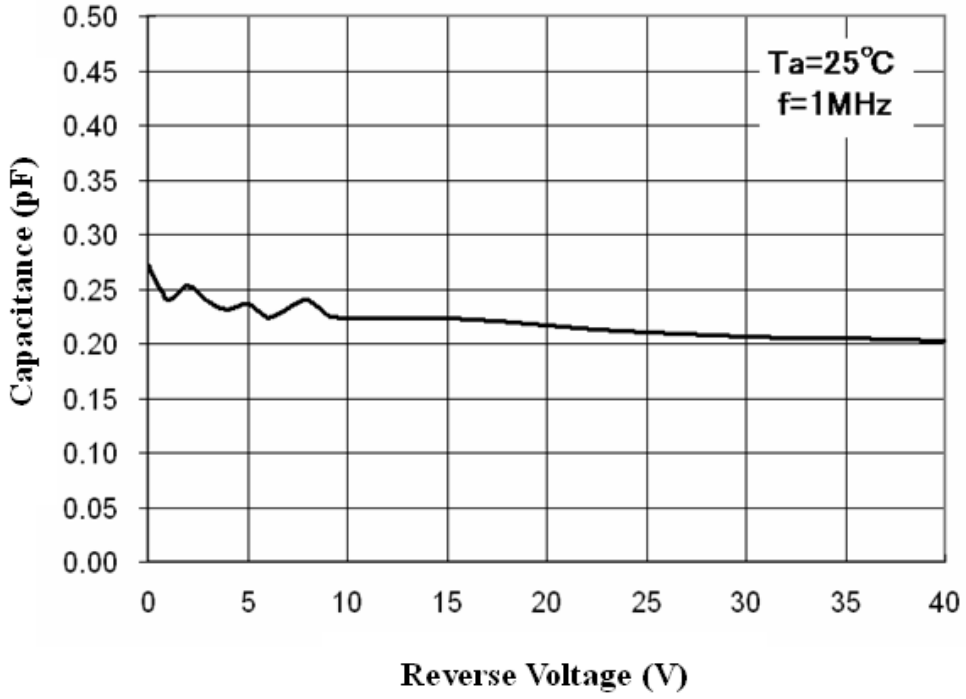
Device Type	Device Marking
1N4148WS	S1
1N4448WS	S2
1N914BWS	S3

Electrical Characteristics
T_A = 25°C unless otherwise noted

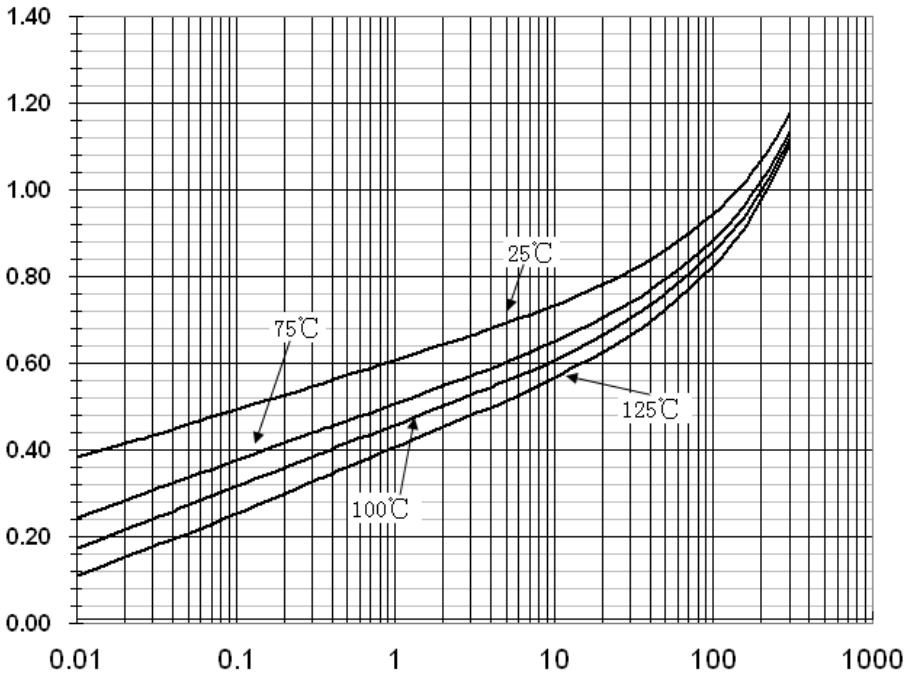
Symbol	Parameter		Test Condition	Limits Min	Limits Max	Unit
B_V	Breakdown Voltage		I_R=100μA	100		Volts
			I_R=5μA	75		
I_R	Reverse Leakage Current		V_R=20V		25	nA
			V_R=75V		5	μA
V_F	Forward Voltage	1N4448WS, 1N914BWS	I_F=5mA	0.62	0.72	
		1N4148WS	I_F=10mA		1.0	Volts
		1N4448WS, 1N914BWS	I_F=100mA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

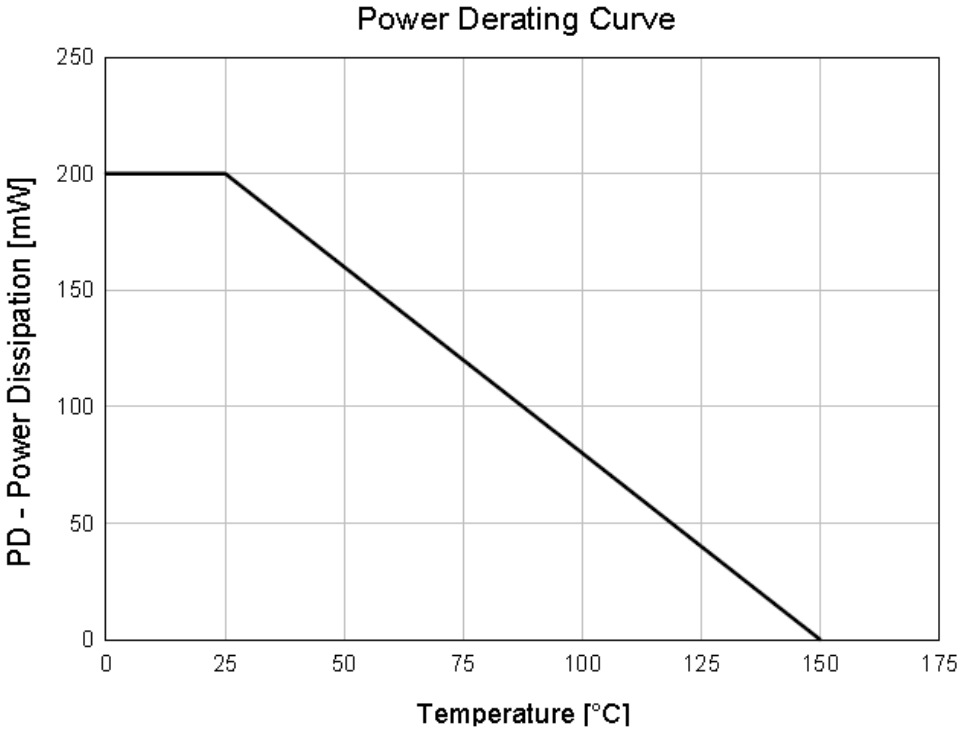
Typical Performance Characteristics

Total Capacitance

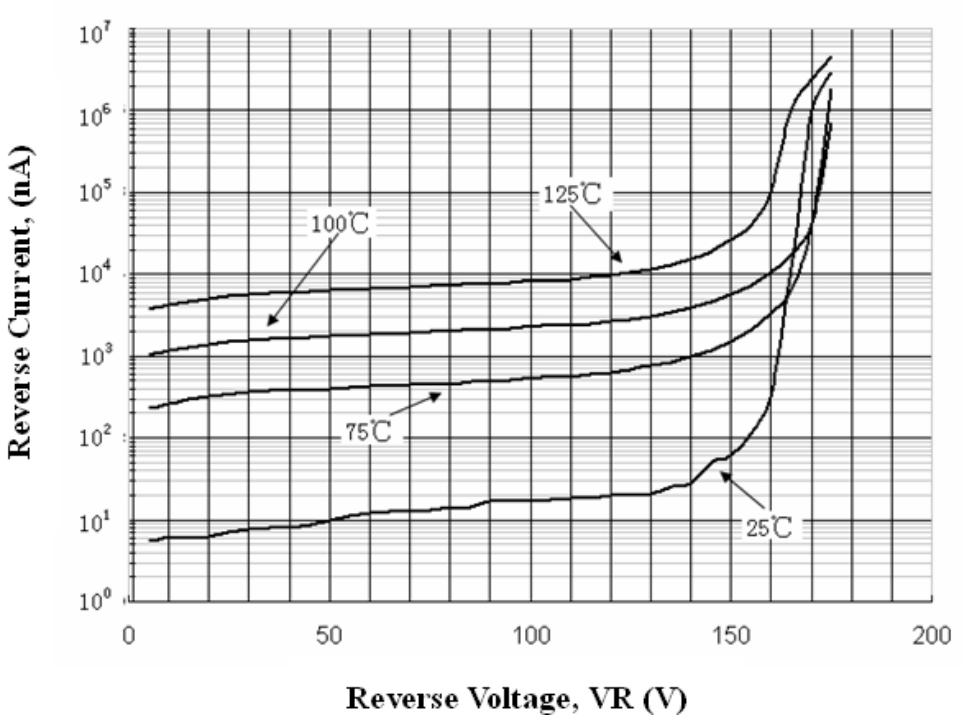


Forward Voltage vs Ambient Temperature

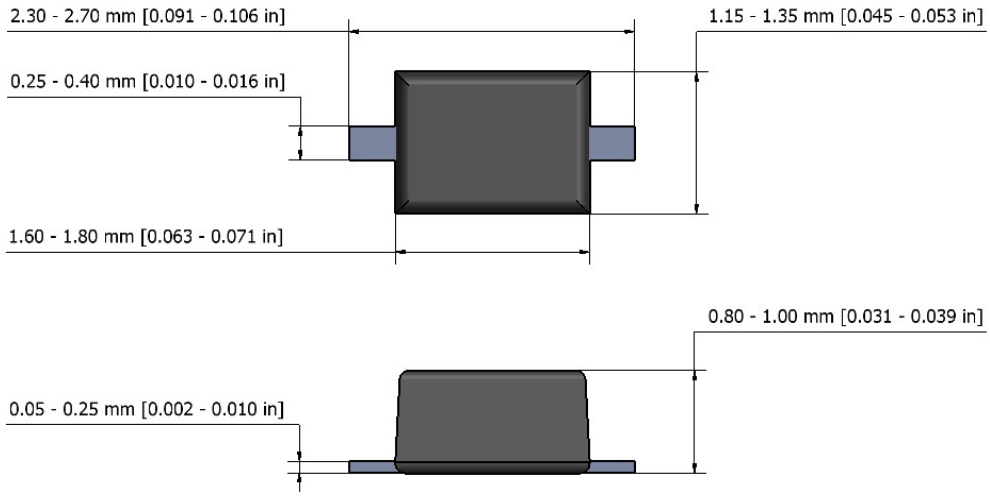




Reverse Current vs Reverse VoltageReverse



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 with 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 damagers resulting from such improper use of sale.

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