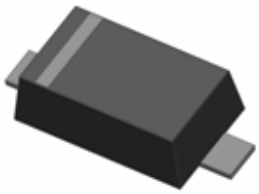
KEL®

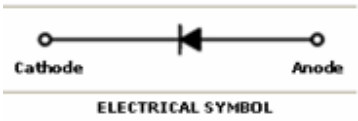
SEMICONDUCTOR

200mW SOD-323 SURFACE MOUNT
Small Outline Flat Lead Plastic Package
High Voltage 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
V_{RRM}	Maximum Repetitive Reverse Voltage	250	V
T_{STG}	Storage Temperature Range	-65 to +150	°C
T_J	Operating Junction Temperature	+150	°C
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Current Pulse Width = 1.0 Second Pulse Width = 1.0 µsecond	 1.0 4.0	 A A

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

Specification Features:

- Flat Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- Moisture Sensitivity Level 1
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODE:

Device Type	Device Marking
BAV19WS	S5
BAV20WS	S6
BAV21WS	S7

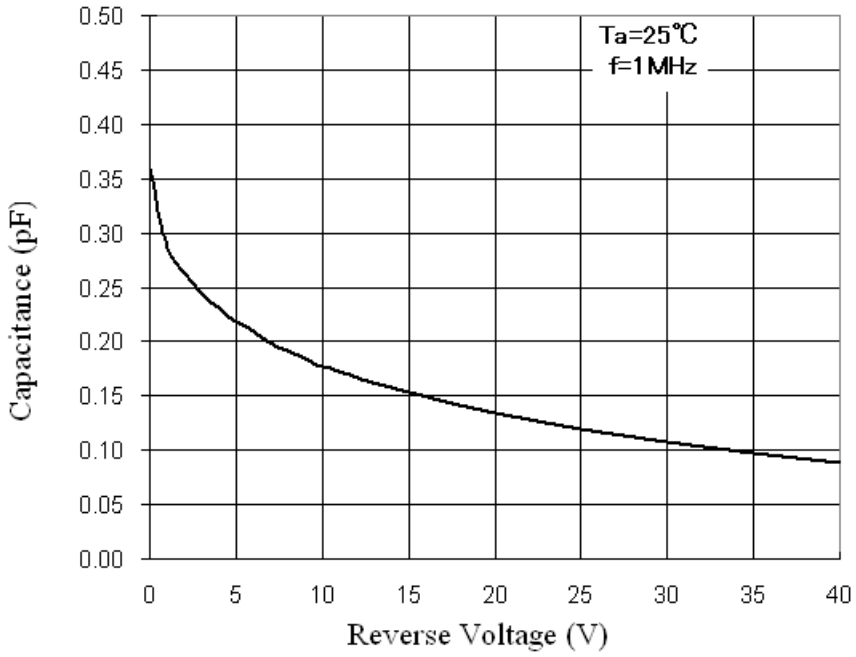
Electrical Characteristics

T_A = 25°C unless otherwise noted

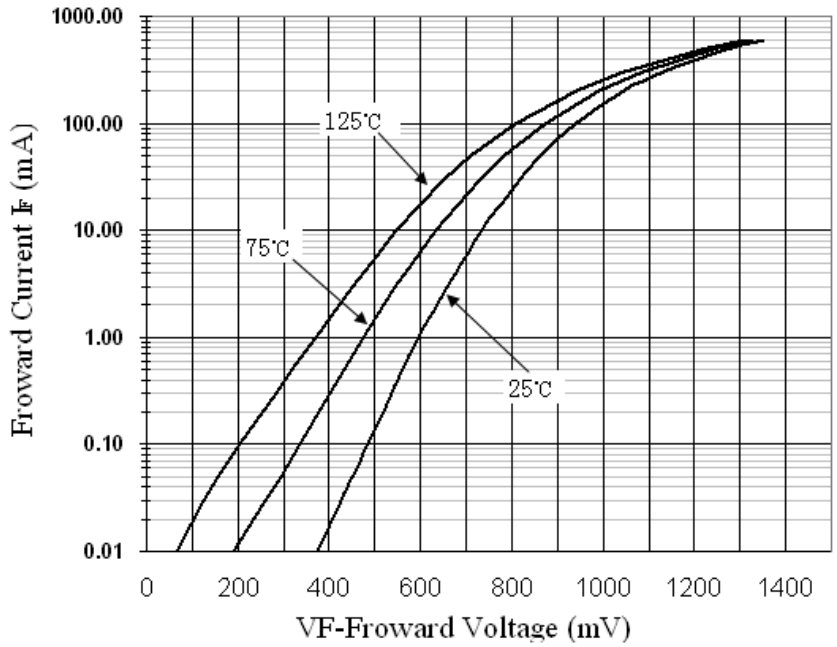
Symbol	Parameter		Test Condition	Limits		Unit
				Min	Max	
B_V	Breakdown Voltage	BAV19WS	I_R=100µA	120	---	Volts
		BAV20WS		200	---	Volts
		BAV21WS		250	---	Volts
I_R	Reverse Leakage Current	BAV19WS	V_R=100V	---	100	nA
		BAV20WS	V_R=150V	---	100	nA
		BAV21WS	V_R=200V	---	100	nA
V_F	Forward Voltage		I_F=100mA	---	1.0	Volts
			I_F=200mA	---	1.25	Volts
T_{RR}	Reverse Recovery Time		I_F=I_R=30mA R_L=100Ω I_{RR}=3mA	---	50	nS
C	Capacitance		V_R=0V, f=1M_{HZ}	---	5.0	pF

Typical Performance Characteristics

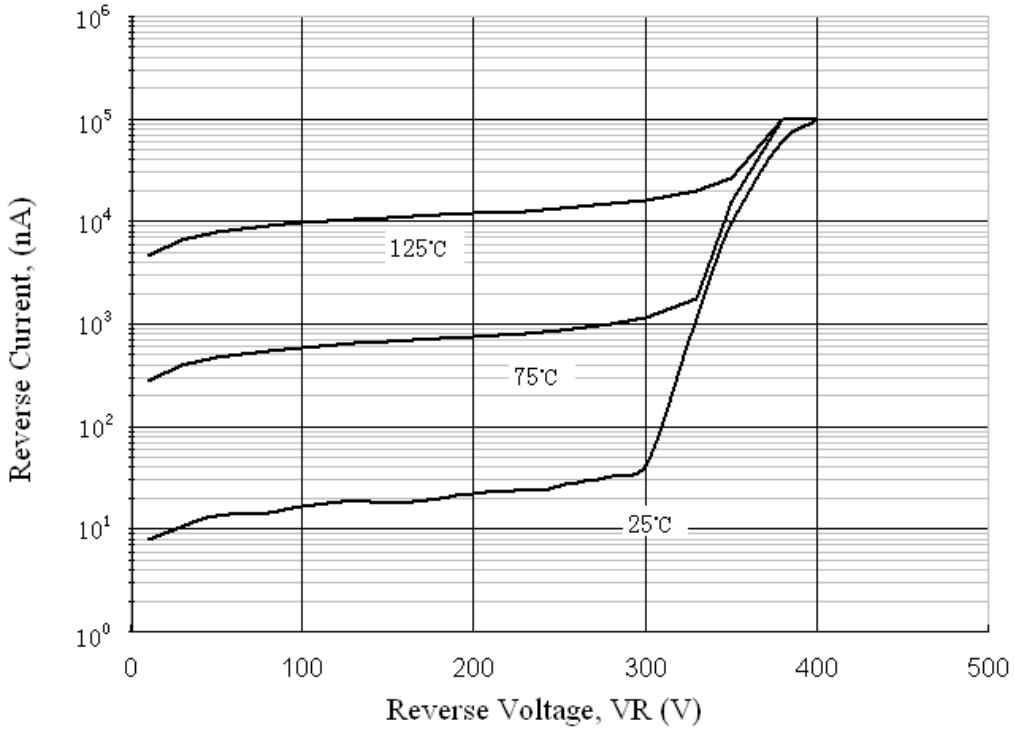
Total Capacitance



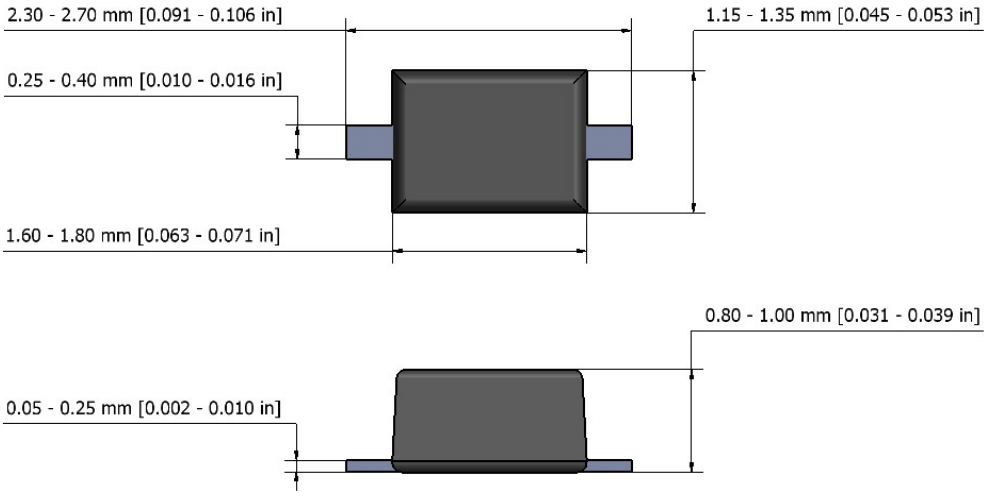
Forward Voltage vs Ambient Temperature



Reverse Current vs Reverse VoltageReverse



SOD-323 Package Outline



NOTE:
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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