

**SMALL SIGNAL DIODE**

**VOLTAGE RANGE 120 to 250 Volts CURRENT 200 mAmpere**

**FEATURES**

- \* Fast Switching Speed
- \* Surface Mount Package Ideally Suited for Automatic Insertion
- \* For General Purpose Switching Applications

**MECHANICAL DATA**

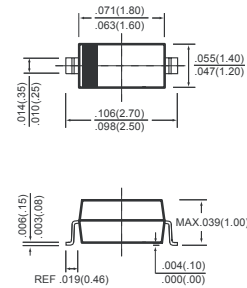
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.004 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**SOD-323**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (@ $T_A=25^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	BAV19WS	BAV20WS	BAV21WS	UNITS
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	120	200	250	Volts
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	150	200	Volts
Maximum Working Peak reverse Voltage	$V_{RWM}$				
Maximum DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{RMS}$	71	106	141	Volts
Forward Continuous Current	$I_{FM}$		400		mAmps
Average Rectified Output Current	$I_O$		200		mAmps
Peak Forward Surge Current	@ $t < 1.0\text{mS}$		2.5		Amps
	@ $t < 1.0\text{S}$		0.5		
Repetitive Peak Forward Current	$I_{FRM}$		625		mAmps
Reverse Recovery Time( $I_F=I_R=30\text{mA}$ $I_{rr}=0.1I_R$ , $R_L=100\Omega$ )	$T_{rr}$		50		nS
Capacitance between terminals ( $V_R=0\text{V}$ , $f=1\text{MHz}$ )	$CT$		5		pF
Power Dissipation	$PD$		200		mW
Storage Temperature Range	$T_{STG}$		-65 to + 150		$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS** (@ $T_A=25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS	SYMBOL	BAV19WS	BAV20WS	BAV21WS	UNITS
Forward Voltage	@ $I_F=0.1\text{A}$		1.0		Volts
	@ $I_F=0.2\text{A}$		1.25		
Reverse Current	@ $V_R=100\text{V}$ (BAV19WS)		0.1		uAmps
	@ $V_R=150\text{V}$ (BAV20WS)				
	@ $V_R=200\text{V}$ (BAV21WS)				

Note 1: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTICS CURVES ( BAV19WS/BAV20WS/BAV21WS )

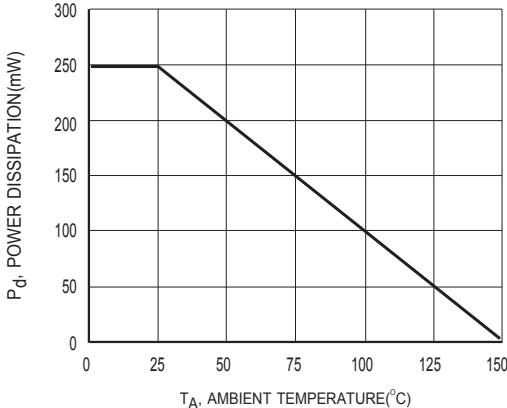


Figure1 Power Derating Curve

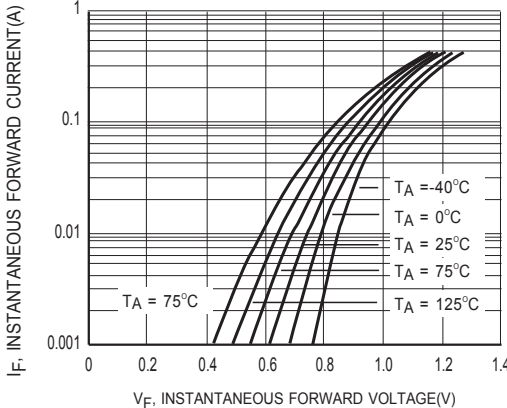


Figure2 Typical Forward Characteristics

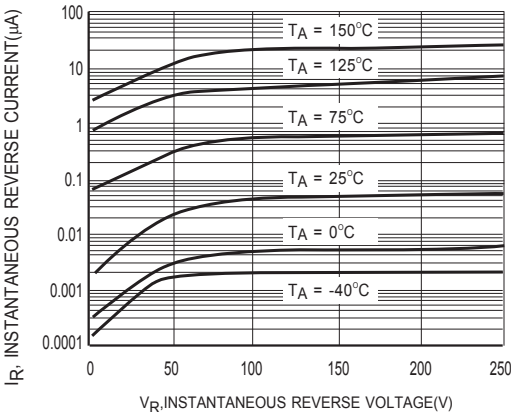


Figure3 Typical Reverse Characteristics

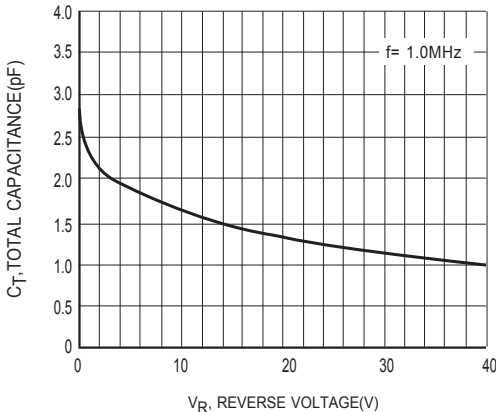


Figure4 Typical Capacitance vs Reverse Voltage

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