RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

BAV19WS
BAV20WS
BAV21WS

SMALL SIGNAL DIODE

VOLTAGE RANGE 120 to 250 Volts CURRENT 200 mAmpere

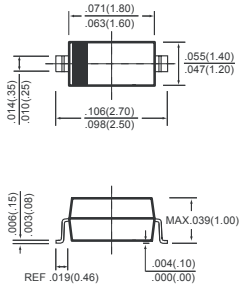
FEATURES

* 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

SOD-323



Dimensions in inches and (millimeters)

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%.

MAXIMUM RATINGS (@T_A=25°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 Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	100	150	200	Volts
RMS Reverse Voltage		V_{RMS}	71	106	141	Volts
Forward Comtinuous Current		I_{FM}	400			mAmps
Average Rectified Output Current		I_O	200			mAmps
Peak Forward Surge Current	@t<1.0mS @t<1.0S	I_{FSM}	2.5 0.5			Amps
Repetitive Peak Forward Current		I_{FRM}	625			mAmps
Reverse Recovery Time(I_F=I_R=30mA I_{rr}=0.1XI_R,R_L=100Ω)		T_{rr}	50			nS
Capacitance between terminals (V_R=0V,f=1MHz)		C_T	5			pF
Power Dissipation		P_D	200			mW
Storage Temperature Range		T_{STG}	-65 to + 150			°C

ELECTRICAL CHARACTERISTICS (@T_A=25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	BAV19WS	BAV20WS	BAV21WS	UNITS
Forward Voltage	@IF=0.1A @IF=0.2A	V_F		1.0 1.25		Volts
Reverse Current	@VR=100V (BAV19WS) @VR=150V (BAV20WS) @VR=200V (BAV21WS)	I_R		0.1		uAmps

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

RATING AND CHARACTERISTICS CURVES (BAV19WS/BAV20WS/BAV21WS)

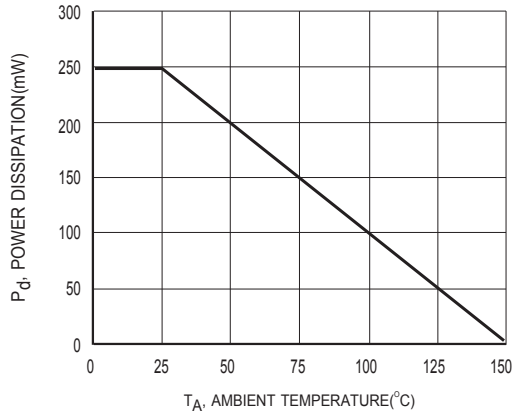


Figure1 Power Derating Curve

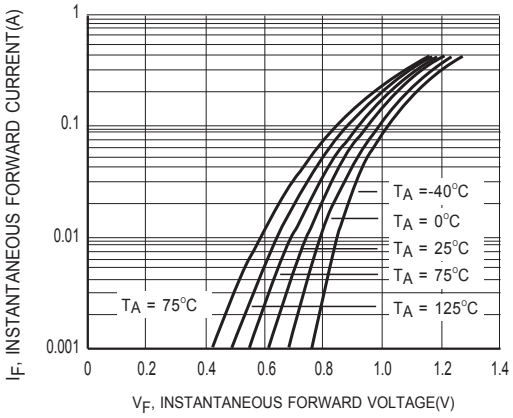


Figure2 Typical Foward Characteristics

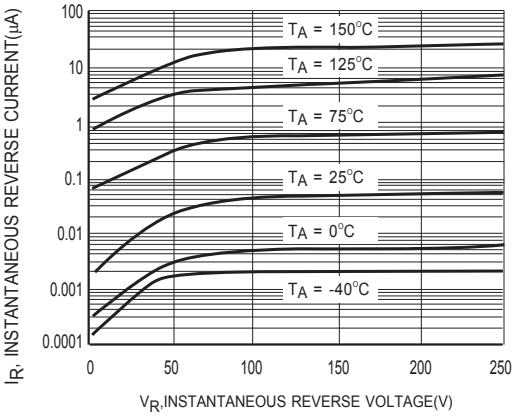


Figure3 Typical Reverse Characteristics

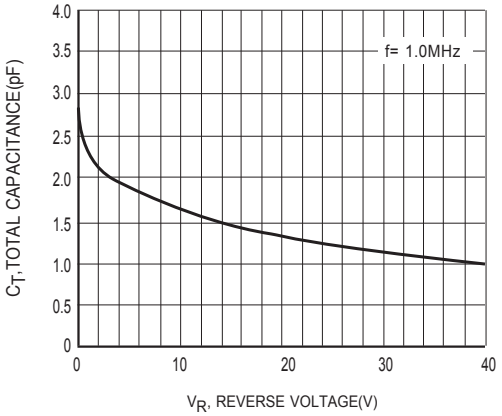


Figure4 Typical Capacitance vs Reverse Voltage

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.