

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 150mAmpere

FEATURES

- * Compact surface mount with same foot print as mini-melf
- * High Breakdown Voltage
- * Fast Switching Speed
- * 400mW Power Dissipation
- * General Purpose Switching Applications
- * High Conductance

MECHANICAL DATA

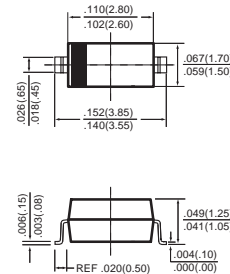
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.01 gram

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-123



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	BAV16W	UNITS
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	75	Volts
Maximum Working Peak reverse Voltage	V _{RWM}		
Maximum DC Blocking Voltage	V _R		
Maximum RMS Voltage	V _{RMS}	53	Volts
Maximum Forward Continuous Current	I _{FM}	300	mAmps
Maximum Average Forward Rectified Current	I _O	150	mAmps
Non-Repetitive Peak Forward Surge Current	I _{FSM}	@t=1.0uS	2.0
		@t=1.0S	1.0
Typical Reverse Recovery Time (Note 1)	T _{rr}	4	nS
Typical Junction Capacitance (Note 2)	C _J	2	pF
Maximum Power Dissipation (Note 3)	P _D	400	mW
Typical Thermal Resistance	R _{θJA}	315	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150	°C

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

CHARACTERISTICS	SYMBOL	BAV16W	UNITS
Maximum Instantaneous Forward Voltage	V _F	@IF=1.0mA	0.715
		@IF=10mA	0.855
		@IF=50mA	1.0
		@IF=150mA	25
Maximum Instantaneous Reverse Current	I _R	@V _R =20V, T _J =25°C	1.25
		@V _R =75V, T _J =25°C	1.0
		@V _R =25V, T _J =150°C	30
		@V _R =75V, T _J =150°C	50

- NOTES : 1. Measured at I_F=I_R=10mA, I_{RR}=0.1I_R And R_L=100 Ω
 2. Measured at 1MHz and applied reverse voltage of 0 volts.
 3. Part mounted on FR-4 PC board with minimum recommended pad layout.

RATING AND CHARACTERISTICS CURVES (BAV16W)

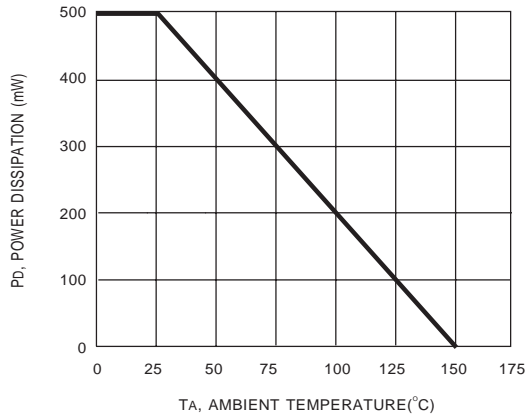


FIG.1 FORWARD DERATING CURVE

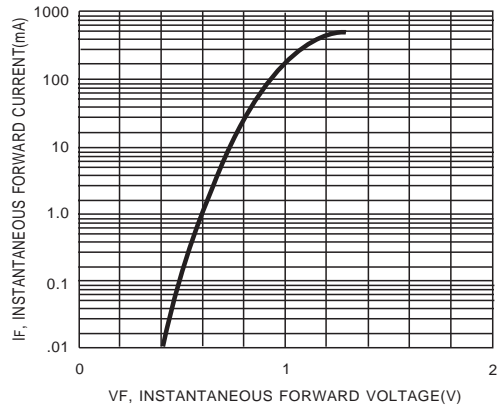


FIG.2 FORWARD CHARACTERISTICS

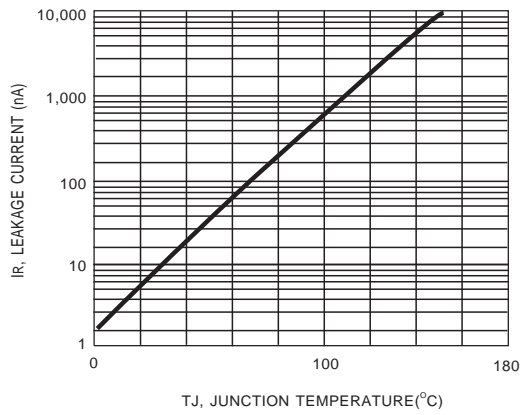


FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

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.