RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

BAV16W

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 150mAmpere

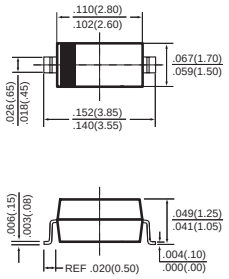
FEATURES

* 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

SOD-123



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	BAV16W	UNITS
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	75	Volts
Maximum RMS Voltage		V_{RMS}	53	Volts
Maximum Forward Comtinuous Current		I_{FM}	300	mAmps
Maximum Average Forward Rectified Current		I_O	150	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uS @t=1.0S	I_{FSM}	2.0 1.0	Amps
Typical Reverse Recovery Time (Note 1)		Trr	4	nS
Typical Junction Capacitance (Note 2)		C_J	2	pF
Maximum Power Dissipation (Note 3)		P_D	400	mW
Typical Thermal Resistance		$R_{\theta JA}$	315	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 150	°C

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

CHARACTERISTICS		SYMBOL	BAV16W	UNITS
Maximum Instantaneous Forward Voltage	@IF=1.0mA @IF=10mA @IF=50mA @IF=150mA	V_F	0.715 0.855 1.0 25	Volts
Maximum Instantaneous Reverse Current	@VR=20V, TJ=25°C @VR=75V, TJ=25°C @VR=25V, TJ=150°C @VR=75V, TJ=150°C	I_R	1.25 1.0 30 50	nAmps uAmps uAmps uAmps

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

2006-3

RATING AND CHARACTERISTICS CURVES (BAV16W)

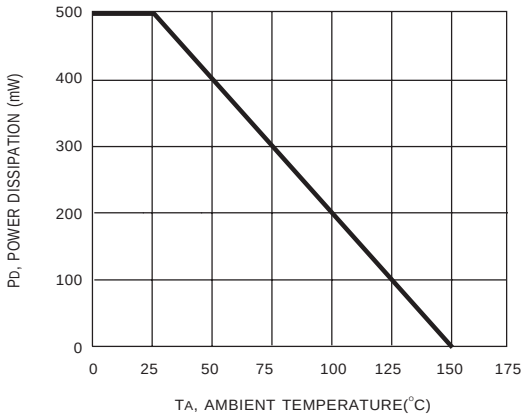


FIG.1 FORWARD DERATING CURVE

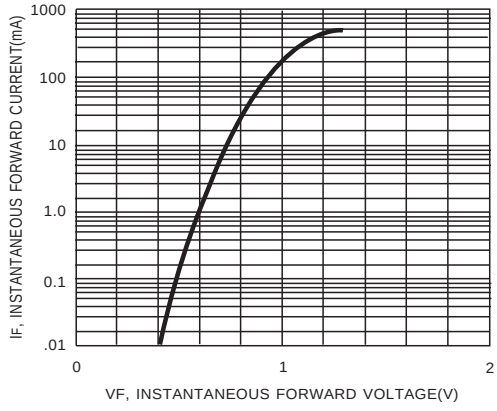


FIG.2 FORWARD CHARACTERISTICS

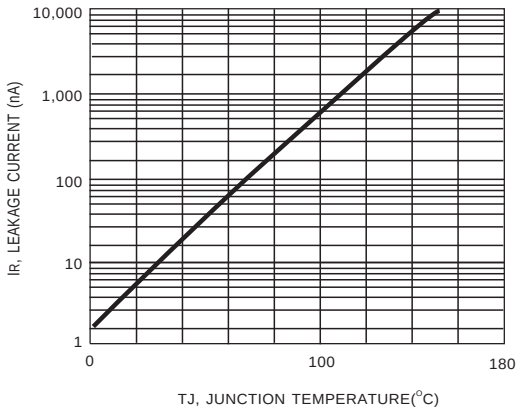


FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

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