RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

BAV16WS

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 150 mAmpere

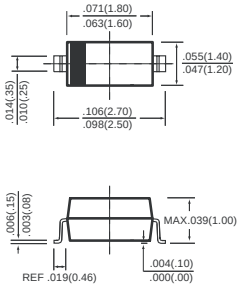
FEATURES

* Fast Switching Speed
* Surface Mount Package Ideally Suited for Automatic Insertion
* For General Purpose Switching Applicationgs
* 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: 0.004 grams

SOD-323



Dimensions in inches and (millimeters)

Ratings at 25

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	BAV16WS	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)		T_{rr}	4	nS
Typical Junction Capacitance (Note 2)		C_J	2	pF
Maximum Power Dissipation (Note 3)		P_D	200	mW
Typical Thermal Resistance		$R_{\theta JA}$	625	°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	BAV16WS	UNITS
Maximum Instantaneous Forward Voltage	@IF=1.0mA @IF=10mA @IF=50mA @IF=150mA	V_F	0.715 0.855 1.0 1.25	Volts
Maximum Instantaneous Peverse Current	@VR=20V @VR=75V	I_R	25 1	nAmps uAmps

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

RATING AND CHARACTERISTICS CURVES (BAV16WS)

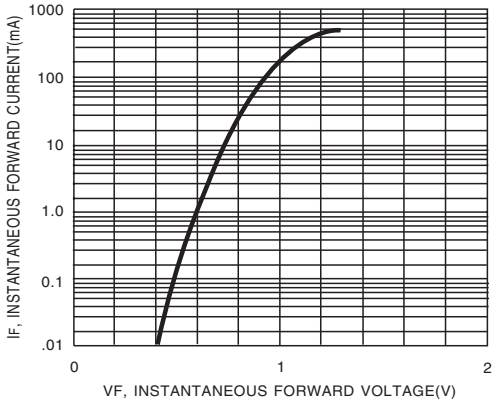


FIG.1 FORWARD CHARACTERISTICS

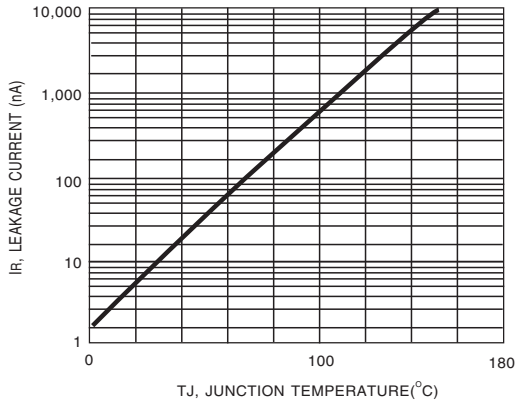


FIG.2 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE