

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 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: 0.004 grams

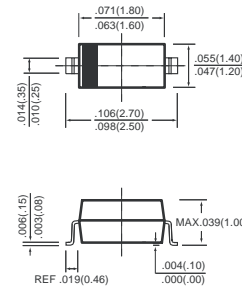
Ratings at 25

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%.



SOD-323



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	BAV16WS	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		@ $t=1.0\mu\text{S}$	2.0
		@ $t=1.0\text{S}$	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	200	mW
Typical Thermal Resistance	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 150	$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	BAV16WS	UNITS
Maximum Instantaneous Forward Voltage	V_F	@ $I_F=1.0\text{mA}$	0.715
		@ $I_F=10\text{mA}$	0.855
		@ $I_F=50\text{mA}$	1.0
		@ $I_F=150\text{mA}$	1.25
Maximum Instantaneous Reverse Current	I_R	@ $V_R=20\text{V}$	25
		@ $V_R=75\text{V}$	1

NOTES : 1. Measured at $I_F=I_R=10\text{mA}$, $I_{RR}=0.1I_R$ And $R_L=100\Omega$.
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 (BAV16WS)

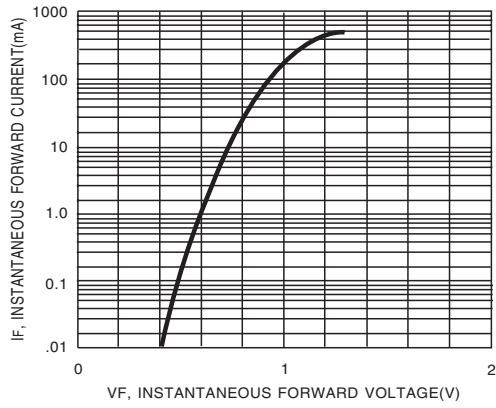


FIG.1 FORWARD CHARACTERISTICS

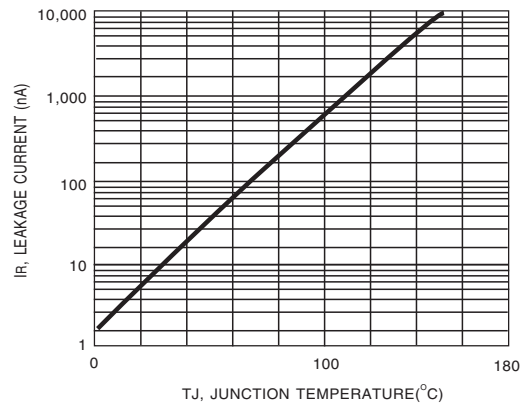


FIG.2 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE