

**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

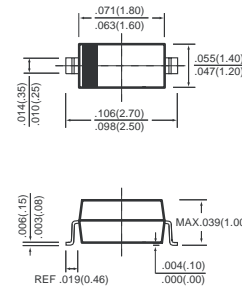
Ratings at 25

**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<sub>A</sub>=25°C unless otherwise noted)**

| RATINGS                                   | SYMBOL                           | BAV16WS      | UNITS |
|---|----------------------------------|--------------|-------|
| Non-Repetitive Peak Reverse Voltage       | V <sub>RM</sub>                  | 100          | Volts |
| Maximum Repetitive Peak Reverse Voltage   | V <sub>RRM</sub>                 | 75           | Volts |
| Maximum Working Peak reverse Voltage      | V <sub>VRM</sub>                 |              |       |
| Maximum DC Blocking Voltage               | V <sub>R</sub>                   |              |       |
| Maximum RMS Voltage                       | V <sub>RMS</sub>                 | 53           | Volts |
| Maximum Forward Continuous Current        | I <sub>FM</sub>                  | 300          | mAmps |
| Maximum Average Forward Rectified Current | I <sub>O</sub>                   | 150          | mAmps |
| Non-Repetitive Peak Forward Surge Current | I <sub>FSM</sub>                 | @t=1.0uS     | 2.0   |
|   |                                  | @t=1.0S      | 1.0   |
| Typical Reverse Recovery Time (Note 1)    | T <sub>rr</sub>                  | 4            | nS    |
| Typical Junction Capacitance (Note 2)     | C <sub>J</sub>                   | 2            | pF    |
| Maximum Power Dissipation (Note 3)        | P <sub>D</sub>                   | 200          | mW    |
| Typical Thermal Resistance                | R <sub>θJA</sub>                 | 625          | °C/W  |
| Operating and Storage Temperature Range   | T <sub>J</sub> ,T <sub>STG</sub> | -65 to + 150 | °C    |

**ELECTRICAL CHARACTERISTICS (@T<sub>A</sub>=25°C unless otherwise noted)**

| CHARACTERISTICS                       | SYMBOL         | BAV16WS                | UNITS |
|---------------------------------------|----------------|------------------------|-------|
| Maximum Instantaneous Forward Voltage | V <sub>F</sub> | @I <sub>F</sub> =1.0mA | 0.715 |
|                                       |                | @I <sub>F</sub> =10mA  | 0.855 |
|                                       |                | @I <sub>F</sub> =50mA  | 1.0   |
|                                       |                | @I <sub>F</sub> =150mA | 1.25  |
| Maximum Instantaneous Peverse Current | I <sub>R</sub> | @V <sub>R</sub> =20V   | 25    |
|                                       |                | @V <sub>R</sub> =75V   | 1     |

NOTES : 1. Measured at I<sub>F</sub>=I<sub>R</sub>=10mA, I<sub>RR</sub>=0.1I<sub>R</sub> And R<sub>L</sub>=100Ω.  
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 )

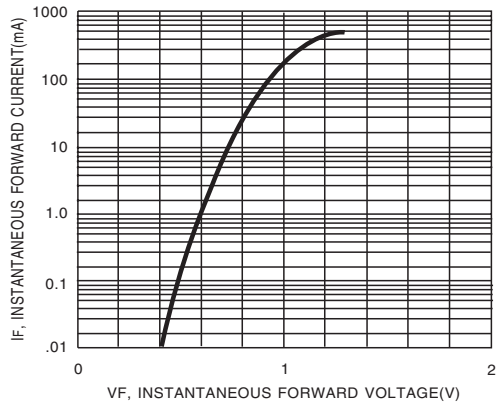


FIG.1 FORWARD CHARACTERISTICS

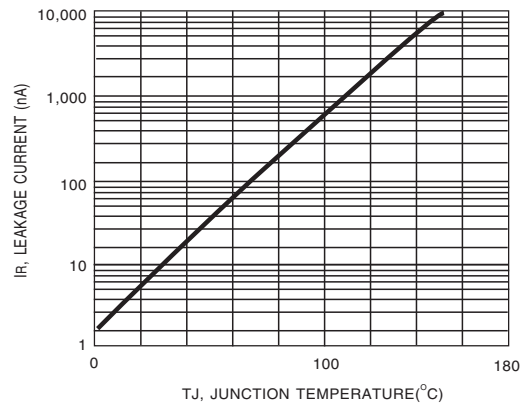


FIG.2 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE