**BAV103**

**High Voltage, General Purpose Diode**

**General Description**
A General Purpose diode that couples high forward conductance fast switching speed and high blocking voltages in a glass leadless LL-34 Surface Mount package.

Placement of the Expansion Gap has no relationship to the location of the Cathode Terminal which is indicated by the first color band.

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### Absolute Maximum Ratings * \( TA=25°C \) unless otherwise noted

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>( T_{STG} )</td>
<td>Storage Temperature</td>
<td>-65 to +200</td>
<td>°C</td>
</tr>
<tr>
<td>( T_J )</td>
<td>Operating Junction Temperature</td>
<td>-65 to +200</td>
<td>°C</td>
</tr>
<tr>
<td>( P_D )</td>
<td>Total Power Dissipation at ( T_A = 25°C )</td>
<td>500</td>
<td>mW</td>
</tr>
<tr>
<td></td>
<td>Linear Derating Factor from ( T_A = 25°C )</td>
<td>3.33</td>
<td>mW/°C</td>
</tr>
<tr>
<td>( R_{JJA} )</td>
<td>Thermal Resistance Junction-to-Ambient</td>
<td>350</td>
<td>°C/W</td>
</tr>
<tr>
<td>( W_{in} )</td>
<td>Working Inverse Voltage</td>
<td>200</td>
<td>V</td>
</tr>
<tr>
<td>( I_O )</td>
<td>Average Rectified Current</td>
<td>200</td>
<td>mA</td>
</tr>
<tr>
<td>( I_F )</td>
<td>DC Forward Current (( I_F ))</td>
<td>500</td>
<td>mA</td>
</tr>
<tr>
<td>( I_{F(surge)} )</td>
<td>Peak Forward Surge Current (( I_{FSM} ))</td>
<td>1.0</td>
<td>Amp</td>
</tr>
<tr>
<td></td>
<td>Pulse Width = 1.0 second</td>
<td>4.0</td>
<td>Amp</td>
</tr>
</tbody>
</table>

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics \( TA=25°C \) unless otherwise noted

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Min.</th>
<th>Max.</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>( B_V )</td>
<td>Breakdown Voltage</td>
<td>( I_R = 100\mu A )</td>
<td>250</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>( I_R )</td>
<td>Reverse Leakage</td>
<td>( V_R = 200V )</td>
<td>100</td>
<td>nA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( V_R = 200V, T_A = 150°C )</td>
<td>100</td>
<td>nA</td>
<td></td>
</tr>
<tr>
<td>( V_F )</td>
<td>Forward Voltage</td>
<td>( I_F = 100mA )</td>
<td>1.00</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( I_F = 200mA )</td>
<td>1.25</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>( C_T )</td>
<td>Capacitance</td>
<td>( V_R = 0, f = 1.0 MHz )</td>
<td>5.0</td>
<td>pF</td>
<td></td>
</tr>
<tr>
<td>( T_{RR} )</td>
<td>Reverse Recovery Time</td>
<td>( I_F = I_R = 30mA, I_{RR} = 1.0mA, R_L = 100Ω )</td>
<td>50</td>
<td>ns</td>
<td></td>
</tr>
</tbody>
</table>
Physical Dimension

NOTE: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE: JEDEC DO-213, VARIATION AC.

B) ALL DIMENSIONS ARE IN MILLIMETERS.

C) CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A  REV01

Dimensions in Millimeters
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<th>Product Status</th>
<th>Definition</th>
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<tbody>
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<td>Advance Information</td>
<td>Formative / In Design</td>
<td>Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.</td>
</tr>
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<td>Preliminary</td>
<td>First Production</td>
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</tr>
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