

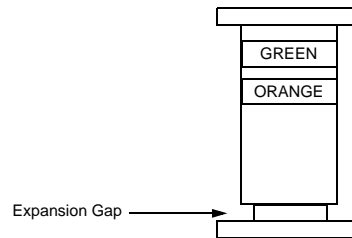
# BAV103

## 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.



### Absolute Maximum Ratings \* $T_A=25^\circ\text{C}$ unless otherwise noted

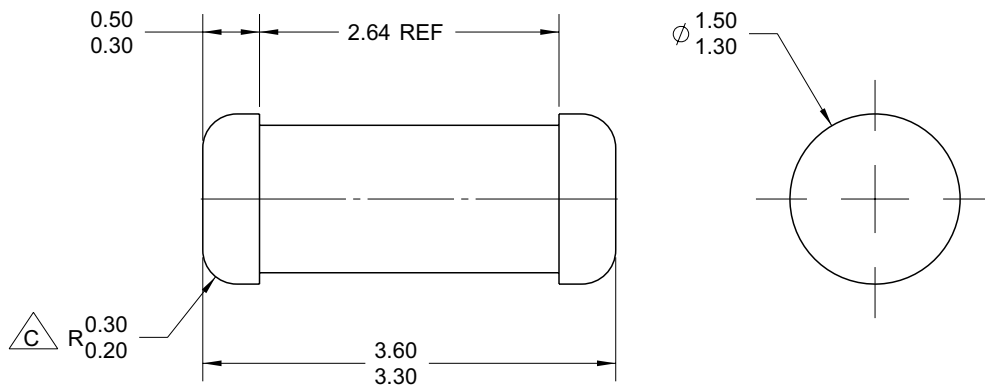
Symbol	Parameter	Value	Units	
$T_{STG}$	Storage Temperature	-65 to +200	$^\circ\text{C}$	
$T_J$	Operating Junction Temperature	-65 to +200	$^\circ\text{C}$	
$P_D$	Total Power Dissipation at $T_A = 25^\circ\text{C}$	500	mW	
	Linear Derating Factor from $T_A = 25^\circ\text{C}$	3.33	mW/ $^\circ\text{C}$	
$R_{\theta JA}$	Thermal Resistance Junction-to-Ambient	350	$^\circ\text{C}/\text{W}$	
$W_{iv}$	Working Inverse Voltage	200	V	
$I_O$	Average Rectified Current	200	mA	
$I_F$	DC Forward Current ( $I_F$ )	500	mA	
$i_f$	Recurrent Peak Forward Current	600	mA	
$i_{F(surge)}$	Peak Forward Surge Current ( $I_{FSM}$ )			
		Pulse Width = 1.0 second	1.0	Amp
		Pulse Width = 1.0 microsecond	4.0	Amp

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

### Electrical Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
$B_V$	Breakdown Voltage	$I_R = 100\mu\text{A}$	250		V
$I_R$	Reverse Leakage	$V_R = 200\text{V}$		100	nA
		$V_R = 200\text{V}, T_A = 150^\circ\text{C}$		100	$\mu\text{A}$
$V_F$	Forward Voltage	$I_F = 100\text{mA}$		1.00	V
		$I_F = 200\text{mA}$		1.25	V
$C_T$	Capacitance	$V_R = 0, f = 1.0\text{MHz}$		5.0	pF
$T_{RR}$	Reverse Recovery Time	$I_F = I_R = 30\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		50	ns

### Physical Dimension



NOTES: UNLESS OTHERWISE SPECIFIED

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

B) ALL DIMENSIONS ARE IN MILLIMETERS.

$\triangle C$  CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

Dimensions in Millimeters



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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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