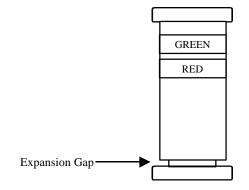


# **BAV102**

#### **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.



## High Voltage, General Purpose Diode

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

Sym	Parameter	Value	Units
$T_{stg}$	Storage Temperature	-65 to +200	°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +200	оС
$P_{D}$	Total Power Dissipation at T <sub>A</sub> = 25°C	500	mW
	Linear Derating Factor from T <sub>A</sub> = 25°C	3.33	mW/ <sup>o</sup> C
R <sub>OJA</sub>	Thermal Resistance Junction-to-Ambient	350	°C/W
W <sub>iv</sub>	Working Inverse Voltage	150	V
I <sub>O</sub>	Average Rectified Current	200	mA
I <sub>F</sub>	DC Forward Current (IF)	500	mA
i <sub>f</sub>	Recurrent Peak Forward Current	600	mA
i <sub>F(surge)</sub>	Peak Forward Surge Current (IFSM) Pulse Width = 1.0 second	1.0	Amp
(** 3*/	Pulse Width = 1.0 microsecond	4.0	Amp

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

### Electrical Characteristics TA

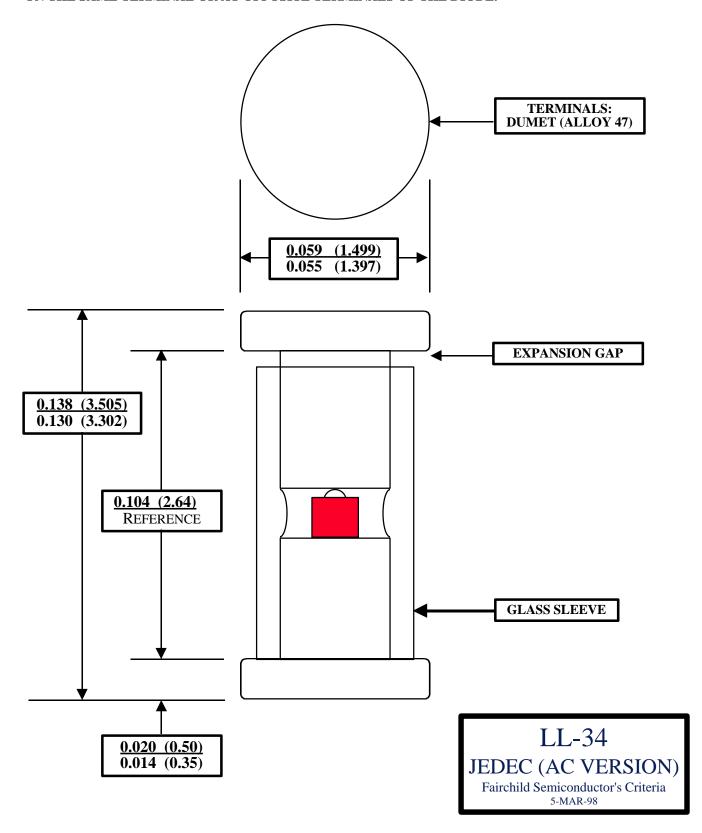
TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B <sub>V</sub>	Breakdown Voltage	200		V	$I_R = 100 \text{ uA}$
I <sub>R</sub>	Reverse Leakage		100 100	nA uA	$V_R = 150 \text{ V}$ $V_R = 150 \text{ V}$ $T_A = 150^{\circ}\text{C}$
V <sub>F</sub>	Forward Voltage		1.00 1.25	V V	$l_F = 100 \text{ mA}$ $l_F = 200 \text{ mA}$
C <sub>T</sub>	Capacitance		5.0	pF	$V_{R} = 0.0 \text{ V,f} = 1.0 \text{ MHz}$
$T_RR$	Reverse Recovery Time		50	ns	$I_F = I_R 30 \text{ mA}$ $I_{RR} = 1.0 \text{ mA}$ $R_L = 100 \text{ Ohms}$

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THE PLACEMENT OF THE EXPANSION GAP HAS NO RELATIONSHIP TO THE LOCATION OF THE CATHODE TERMINAL OF THE DEVICE. THE EXPANSION GAP & CATHODE BAND CAN BE ON THE SAME TERMINAL OR AT OPPOSITE TERMINALS OF THE DIODE.



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CROSSVOLT™	GlobalOptoisolator™	PowerTrench®	SyncFET™
DenseTrench™	GTO™	QFET™	TinyLogic™
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EcoSPARK™	ISOPLANAR™	QT Optoelectronics™	UltraFET®
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