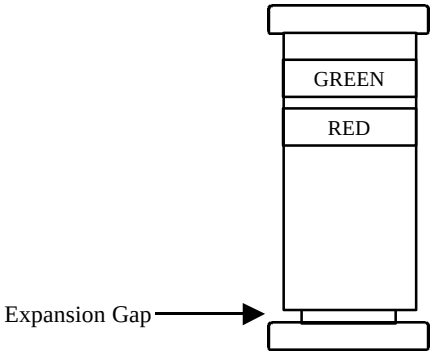
FAIRCHILD SEMICONDUCTOR™

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_J	Operating Junction Temperature	-65 to +200	°C
P_D	Total Power Dissipation at T_A = 25°C	500	mW
	Linear Derating Factor from T_A = 25°C	3.33	mW/°C
R_{OJA}	Thermal Resistance Junction-to-Ambient	350	°C/W
W_{iv}	Working Inverse Voltage	150	V
I_O	Average Rectified Current	200	mA
I_F	DC Forward Current (IF)	500	mA
i_f	Recurrent Peak Forward Current	600	mA
$i_{F(surge)}$	Peak Forward Surge Current (IFSM) 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 TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B_V	Breakdown Voltage	200		V	I_R = 100 uA
I_R	Reverse Leakage		100 100	nA uA	V_R = 150 V V_R = 150 V T_A = 150°C
V_F	Forward Voltage		1.00 1.25	V V	I_F = 100 mA I_F = 200 mA
C_T	Capacitance		5.0	pF	V_R = 0.0 V, f = 1.0 MHz
T_{RR}	Reverse Recovery Time		50	ns	I_F= I_R 30 mA I_{RR}= 1.0 mA R_L = 100 Ohms

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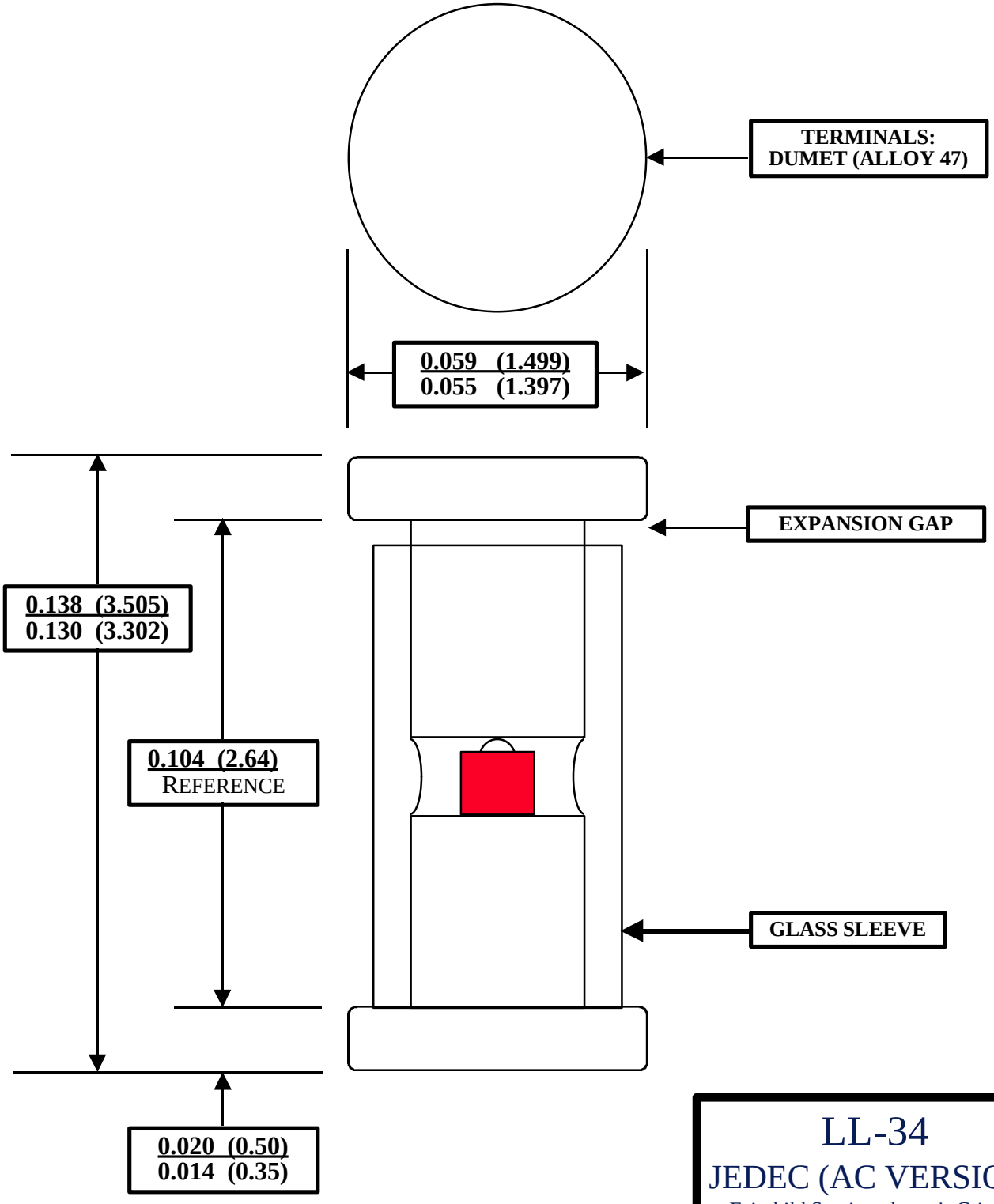
DISCRETE POWER AND SIGNAL
TECHNOLOGIES

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.



LL-34

JEDEC (AC VERSION)

Fairchild Semiconductor's Criteria
5-MAR-98

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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