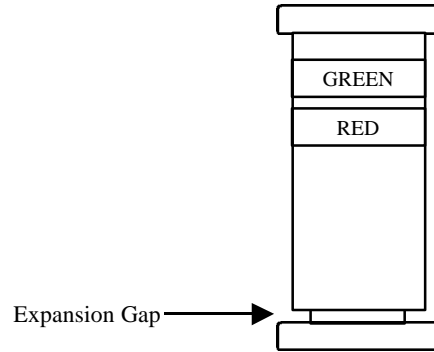


General Description:

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

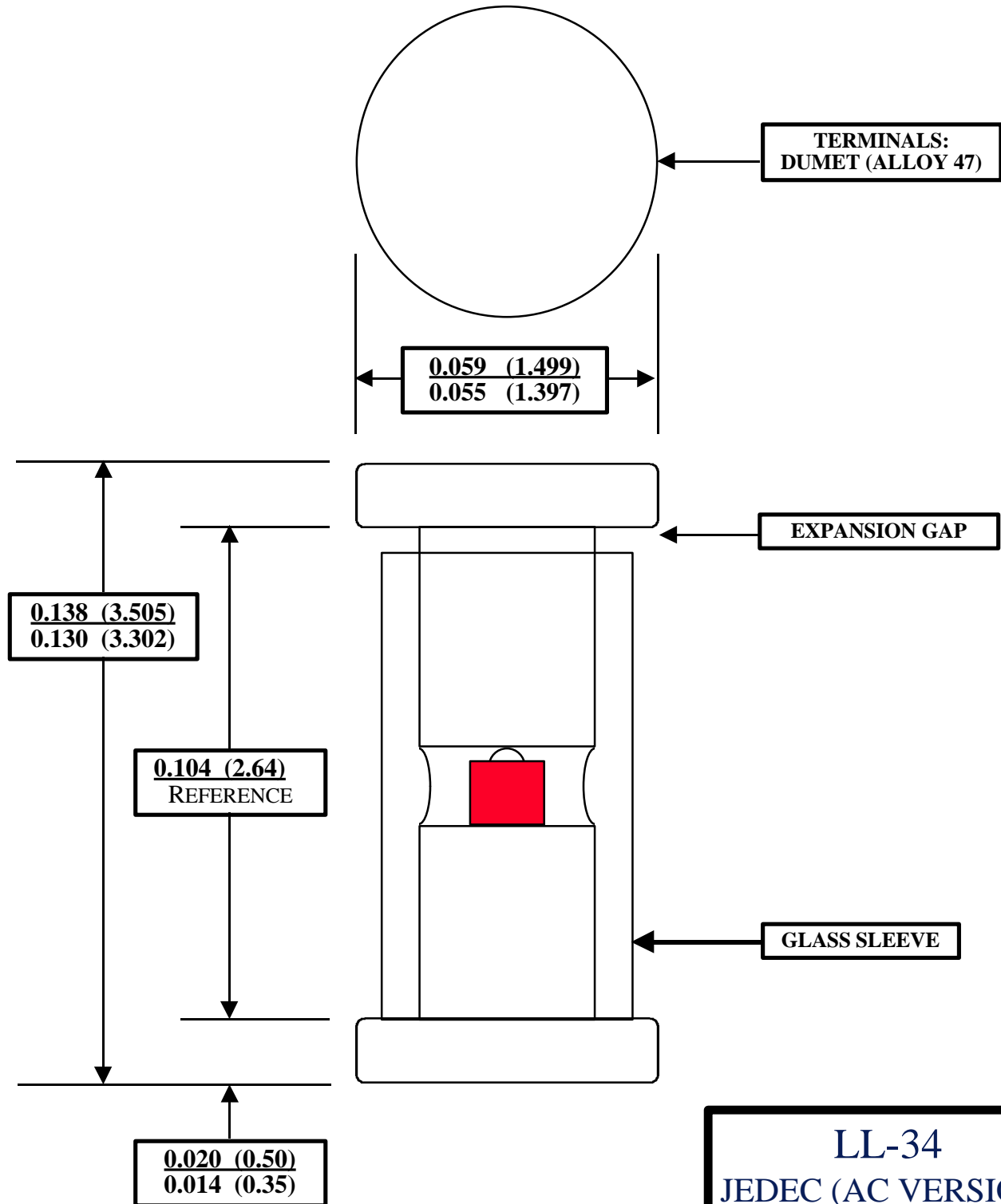
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

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	nA	V _R = 150 V V _R = 150 V T _A = 150°C
			100	uA	
V _F	Forward Voltage		1.00	V	I _F = 100 mA I _F = 200 mA
			1.25	V	
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

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

TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACE _x TM	FAST [®]	OPTOPLANAR TM	SuperSOT TM -3
Bottomless TM	FAST _r TM	PACMAN TM	SuperSOT TM -6
CoolFET TM	FRFET TM	POP TM	SuperSOT TM -8
CROSSVOLT TM	GlobalOptoisolator TM	PowerTrench [®]	SyncFET TM
DenseTrench TM	GTO TM	QFET TM	TinyLogic TM
DOMET TM	HiSeC TM	QS TM	UHC TM
EcoSPARK TM	ISOPLANAR TM	QT Optoelectronics TM	UltraFET [®]
E ² CMOS TM	LittleFET TM	Quiet Series TM	VCX TM
EnSigna TM	MicroFET TM	SILENT SWITCHER [®]	
FACT TM	MICROWIRE TM	SMART START TM	
FACT Quiet Series TM	OPTOLOGIC TM	Stealth TM	

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
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.

PRODUCT STATUS DEFINITIONS

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.