FAIRCHILD SEMICONDUCTOR®

February 2011

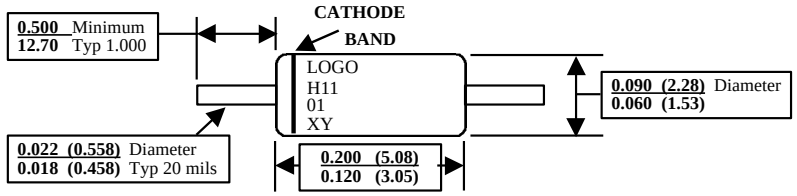
FJH1101
Ultra Low Leakage Diode

General Description

An Ultra Low Leakage Diode in the DO-35 package.

The forward voltage is typically greater than 0.5 volts at 1.0 micro-ampere.

This product is light sensitive, any damage to the body coating will affect the reverse leakage when exposed to light.



*** XY = 6 weeks marking date code, X = last digit of the calendar year (Alpha), Y = 6 weeks numeric code.**

Typical Forward Voltages

1.0 uA	530 mV
10 uA	605 mV
100 uA	685 mV
1.0 mA	780 mV
10 mA	895 mV
50 mA	995 mV
100 mA	1.07 V

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
W_{IV}	Working Inverse Voltage	15	V
I_F	DC Forward Current (I_F)	150	mA
P_D	Total Power Dissipation at T_A = 25°C Linear Derating Factor from T_A = 25°C	250 1.67	mW mW/°C
$R_{\theta JA}$	Thermal Resistance Junction-to-Ambient	300	°C/W
T_J	Operating Junction Temperature	175	°C
T_{STG}	Storage Temperature	-55 to +200	°C

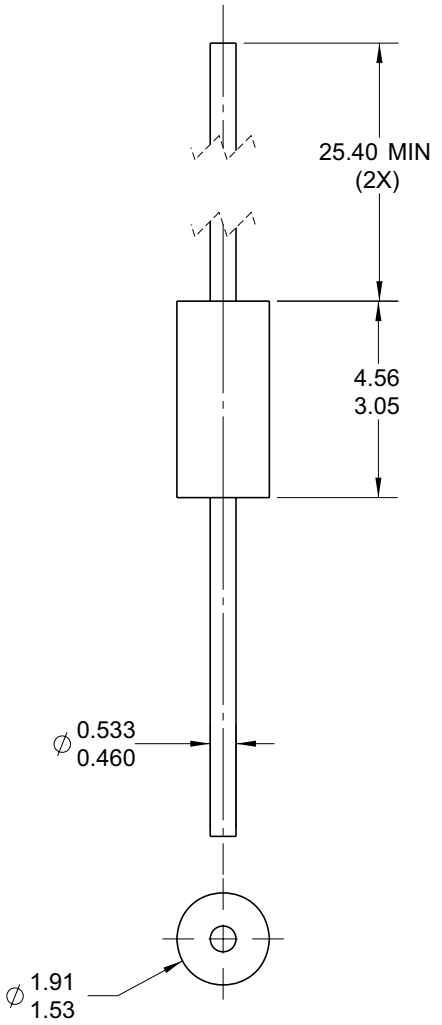
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
B_V	Breakdown Voltage	I_R = 5.0μA	20			V
I_R	Reverse Leakage	V_R = 5.0V V_R = 15V			5.0 15	pA pA
V_F	Forward Voltage	I_F = 50mA			1.1	V
C_T	Diode Capacitance	V_R = 0V, f = 1.0MHz			2.0	pF

Physical Dimension

DO-35



NOTES: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE:
JEDEC DO-204, VARIATION AH.
B) HERMETICALLY SEALED GLASS PACKAGE.
C) PACKAGE WEIGHT IS 0.137 GRAM.
D) ALL DIMENSIONS ARE IN MILLIMETERS.
E) DRAWING FILE NAME: DO35AREV02

Dimensions in Millimeters

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2. A critical component in 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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Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

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