

SEMICONDUCTOR IM

FDLL3595

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 Conductance, Low Leakage Diode



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

Sym	Parameter	Value	Units
T _{stg}	Storage Temperature	-65 to +200	°C
TJ	Operating Junction Temperature	-65 to +200	Oo
P _D	Total Power Dissipation at $T_A = 25^{\circ}C$	500	mW
	Linear Derating Factor from $T_A = 25^{\circ}C$	3.33	mW/ ^o C
R _{OJA}	Thermal Resistance Junction-to-Ambient	350	°C/W
W _{iv}	Working Inverse Voltage	125	V
ا ₀	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** V B_{v} Breakdown Voltage 150 I_R = 100 uA $V_{R} = 125 V$ I_R **Reverse Leakage** 1.0 nA $V_{R}^{R} = 30 \text{ V } T_{A} = 125^{\circ}\text{C}$ $V_{R} = 125 \text{ V } T_{A} = 125^{\circ}\text{C}$ $V_{R} = 180 \text{ V } T_{A} = 150^{\circ}\text{C}$ 300 nA 500 nA 3.0 uA VF Forward Voltage 1.0 mA 520 680 mν I_{F} = 600 750 5.0 mA mν = I_{F} 650 800 10 mA mν = 750 880 50 mA mν = 790 920 $= 100 \, \text{mA}$ mν $|_{F}$ $= 200 \, \text{mA}$ 0.83 1.00 V C_{T} Capacitance $V_{R} = 0.0 V, f = 1.0 MHz$ 8.0 pF $I_{F} = 10 \text{ mA } V_{R} = 3.5 \text{ V}$ T_{RR} Reverse Recovery Time 3.0 us $R_1 = 1.0 \text{ kOhms}$ © 2000 Fairchild Semiconductor Corporation FDLL3595 - Rev. A



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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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition		
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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.		
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Rev. H				