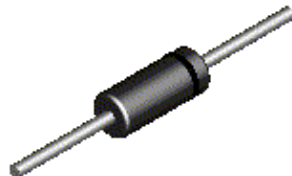


FDH3595



DO-35

High Conductance Low Leakage Diode

Sourced from Process 1M. See MMBD1501-1505 for characteristics.

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
W_{IV}	Working Inverse Voltage	125	V
I_O	Average Rectified Current	200	mA
I_F	DC Forward Current	500	mA
i_f	Recurrent Peak Forward Current	600	mA
$i_{f(surge)}$	Peak Forward Surge Current Pulse width = 1.0 second Pulse width = 1.0 microsecond	1.0 4.0	A A
T_{stg}	Storage Temperature Range	-65 to +175	°C
T_J	Operating Junction Temperature	175	°C

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

NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		MMBD7000*	
P_D	Total Device Dissipation Derate above 25°C	500 3.33	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

High Conductance Low Leakage Diode

(continued)

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
B_V	Breakdown Voltage	$I_R = 100\ \mu\text{A}$	150		V
I_R	Reverse Voltage Leakage Current	$V_R = 125\ \text{V}$ $V_R = 30\ \text{V}, T_A = 125^\circ\text{C}$ $V_R = 125\ \text{V}, T_A = 125^\circ\text{C}$ $V_R = 125\ \text{V}, T_A = 150^\circ\text{C}$		1.0 300 500 3.0	nA nA nA μA
V_F	Forward Voltage	$I_F = 1.0\ \text{mA}$ $I_F = 5.0\ \text{mA}$ $I_F = 10\ \text{mA}$ $I_F = 50\ \text{mA}$ $I_F = 100\ \text{mA}$ $I_F = 200\ \text{mA}$	520 600 650 750 790 0.83	680 760 800 890 920 1.0	mV mV mV mV mV V
C_T	Diode Capacitance	$V_R = 0, f = 1.0\ \text{MHz}$		8.0	pF

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Definition of Terms

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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.
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