FAIRCHILD SEMICONDUCTOR TM

Discrete POWER & Signal Technologies

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

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(continued)

Electrical Characteristics

TA = 25°C unless otherwise noted

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

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Definition of Terms

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