

## 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
$i_{(surge)}$	Peak Forward Surge Current		
	Pulse width = 1.0 second	1.0	A
	Pulse width = 1.0 microsecond	4.0	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	mW
		3.33	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

## High Conductance Low Leakage Diode

(continued)

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### Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> = 100 μA	150		V
I <sub>R</sub>	Reverse Voltage Leakage Current	V <sub>R</sub> = 125 V V <sub>R</sub> = 30 V, T <sub>A</sub> = 125°C V <sub>R</sub> = 125 V, T <sub>A</sub> = 125°C V <sub>R</sub> = 125 V, T <sub>A</sub> = 150°C		1.0 300 500 3.0	nA nA nA μA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 1.0 mA I <sub>F</sub> = 5.0 mA I <sub>F</sub> = 10 mA I <sub>F</sub> = 50 mA I <sub>F</sub> = 100 mA I <sub>F</sub> = 200 mA	520 600 650 750 790 0.83	680 760 800 890 920 1.0	mV mV mV mV mV V
C <sub>T</sub>	Diode Capacitance	V <sub>R</sub> = 0, f = 1.0 MHz		8.0	pF

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