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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 | 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)

FDH3595

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 V _R = 30 V, T _A = 125°C V _R = 125 V, T _A = 125°C V _R = 125 V, T _A = 150°C | | 1.0 300 500 3.0 | nA nA nA μA |
| V _F | Forward Voltage | I _F = 1.0 mA I _F = 5.0 mA I _F = 10 mA I _F = 50 mA I _F = 100 mA I _F = 200 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 MHz | | 8.0 | pF |

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|--------------------------|------------------------|---|
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