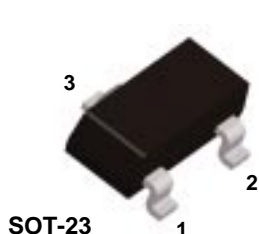
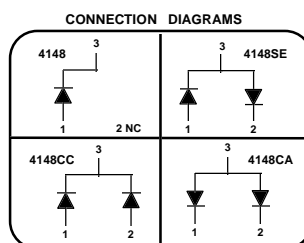


MMBD4148 / SE / CC / CA



MARKING

MMBD4148 5H MMBD4148CA D6
MMBD4148CC D5 MMBD4148SE D4



High Conductance Ultra Fast Diode

Sourced from Process 1P. See MMBD1201-1205 for characteristics.

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|----------------|--------------------------------|-------------|-------|
| W_{IV} | Working Inverse Voltage | 75 | V |
| I_O | Average Rectified Current | 200 | mA |
| I_F | DC Forward Current | 600 | mA |
| i_f | Recurrent Peak Forward Current | 700 | mA |
| $i_{f(surge)}$ | Peak Forward Surge Current | | |
| | Pulse width = 1.0 second | 1.0 | A |
| | Pulse width = 1.0 microsecond | 2.0 | A |
| T_{stg} | Storage Temperature Range | -55 to +150 | °C |
| T_J | Operating Junction Temperature | 150 | °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 150 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 |
|-----------------|---|--------------------|-------|
| | | MMBD4148/SE/CC/CA* | |
| P_D | Total Device Dissipation Derate above 25°C | 350 | mW |
| | | 2.8 | mW/°C |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357 | °C/W |

*Device mounted on glass epoxy PCB 1.6" X 1.6" X 0.06"; mounting pad for the collector lead min. 0.93 in2

High Conductance Low Leakage Diode

(continued)

Electrical Characteristics

TA = 25°C unless otherwise noted

| Symbol | Parameter | Test Conditions | Min | Max | Units |
|-----------------|-----------------------|--|-----------|-----------------|----------------|
| B _V | Breakdown Voltage | I _R = 100 μA I _R = 5.0 μA | 100 75 | | V V |
| I _R | Reverse Current | V _R = 20 V V _R = 20 V, T _A = 150°C V _R = 75 V | | 25 50 5.0 | nA μA μA |
| V _F | Forward Voltage | I _F = 10 mA | | 1.0 | V |
| C _O | Diode Capacitance | V _R = 0, f = 1.0 MHz | | 4.0 | pF |
| T _{RR} | Reverse Recovery Time | I _F = 10 mA, V _R = 6.0 V, I _{RR} = 1.0 mA, R _L = 100Ω | | 4.0 | nS |

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