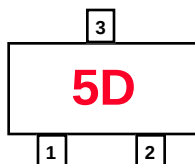
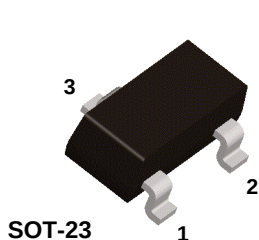




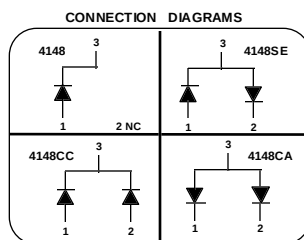
**Discrete POWER & Signal
Technologies**

MMBD4148 / SE / CC / CA



MARKING

MMBD4148 11 MMBD4148CA A11
MMBD4148CC 13 MMBD4148SE A13



High Conductance Ultra Fast Diode

Sourced from Process 1P.

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 Pulse width = 1.0 microsecond	1.0 2.0	A 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 2.8	mW 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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