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MMBD4148

General Purpose Diode

Small Signal, Power, Switching

SOT-23 Type Surface Mount Package

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$, Note 1 unless otherwise specified)

Maximum Repetitive Reverse Voltage, V_{RRM}	100V
Average Rectified Forward Current, $I_{F(AV)}$	200mA
Non-Repetitive Peak Forward Surge Current, I_{FSM}	
Pulse Width = 1sec	1.0A
Pulse Width = 1 μ	2.0A
Power Dissipation, P_D	350mW
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C
Thermal Resistance, Junction-to-Ambient, R_{thJA}	+357°C/W

Note 1. Stresses exceeding the Absolute Maximum Ratings may damage the device. The device may not function or be operable above the Recommended Operating Conditions and stressing the parts to these devices is not recommended. In addition, extended exposure to stresses above the Recommended Operating Conditions may affect device reliability. The Absolute Maximum Ratings are stress ratings only.

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R = 5\mu\text{A}$	75	–	–	V
		$I_R = 100\mu\text{A}$	100	–	–	V
Forward Voltage	V_F	$I_F = 10\text{mA}$	–	–	1.0	V
Reverse Leakage Current	I_R	$V_R = 20\text{V}$	–	–	25	nA
		$V_R = 20\text{V}, T_A = +150^\circ\text{C}$	–	–	50	μA
		$V_R = 75\text{V}$	–	–	5.0	μA
Total Capacitance	C_T	$V_R = 0\text{V}, f = 1\text{MHz}$	–	–	4.0	pF
Reverse Recovery Time	t_{rr}	$I_F = 10\text{mA}, V_R = 6\text{V}, I_{RR} = 1\text{mA}, R_L = 100\Omega$	–	–	4.0	ns

