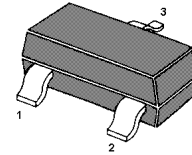
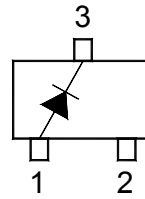


MMBD6050

SWITCHING DIODE



1. Anode 3. Cathode

Marking Code: **HD**
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

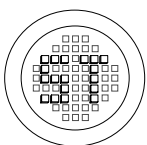
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	70	V
Forward Current	I_F	200	mA
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
Total Device Dissipation FR-5 Board ¹⁾ $T_A=25^\circ\text{C}$ Derate above 25°C	P_D	225 1.8	mW mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate ²⁾ $T_A=25^\circ\text{C}$ Derate above 25°C	P_D	300 2.4	mW mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_S	-55 to +150	$^\circ\text{C}$

¹⁾ FR-5=1 x 0.75 x 0.062 in.

²⁾ Alumina=0.4 x 0.3 x 0.024 in. 99.5% alumina.

Characteristics at $T_j = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 100\text{ mA}$	V_F V_F	0.55 0.85	0.7 1.1	V V
Reverse Breakdown Voltage at $I_{(BR)} = 100\text{ }\mu\text{A}$	$V_{(BR)}$	70	-	V
Reverse Voltage Leakage Current at $V_R = 50\text{ V}$	I_R	-	0.1	μA
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}$, $I_{R(REC)} = 1\text{ mA}$	t_{rr}	-	4	ns
Capacitance at $V_R = 0\text{ V}$	C	-	2.5	pF



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company
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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 19/12/2005