

# MMBD7000

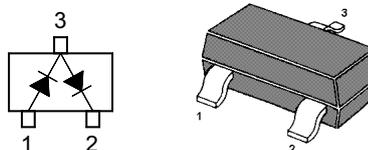
## DUAL SURFACE MOUNT SWITCHING DIODE

### Features

- Fast switching speed
- High Conductance

### Applications

- For general purpose switching



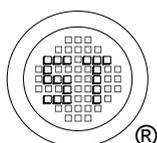
Marking Code: **A7**  
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Reverse Voltage	$V_R$	100	V
Forward Current	$I_F$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	2	A
		1	
Power Dissipation	$P_d$	350	mW
Junction and Storage Temperature Range	$T_j, T_s$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	-	V
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	0.55	0.7	V
		0.67	0.82	
		0.75	1.1	
		-	1.25	
Reverse Current at $V_R = 50\text{ V}$ at $V_R = 100\text{ V}$ at $V_R = 50\text{ V}, T_j = 125\text{ }^\circ\text{C}$	$I_R$	-	1	$\mu\text{A}$
		-	3	
		-	100	
Total Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}, I_{tr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949:2002 Certificate No. 05103  
ISO 14001:2004 Certificate No. 7116  
ISO 9001:2000 Certificate No. 0506098

Dated : 10/10/2008

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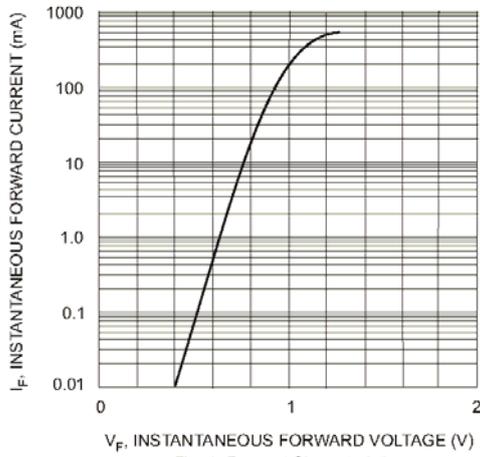


Fig. 1 Forward Characteristics

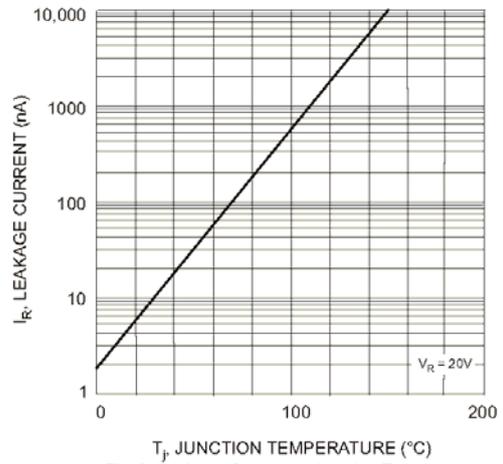


Fig. 2 Leakage Current vs Junction Temperature

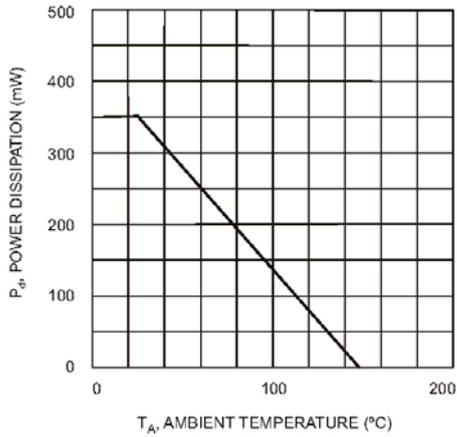
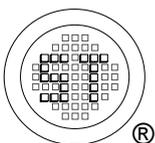


Fig. 3 Power Dissipation Derating



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