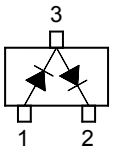
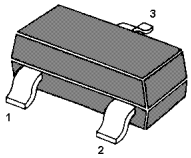
MMBD7000

Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- High Conductance





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

Applications

- For general purpose switching

Absolute Maximum Ratings (T_a = 25 °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	at t = 1 s at t = 1 µs	I_{FSM}	1 2	A
Power Dissipation		P_d	350	mW
Junction and Storage Temperature Range		T_j, T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

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

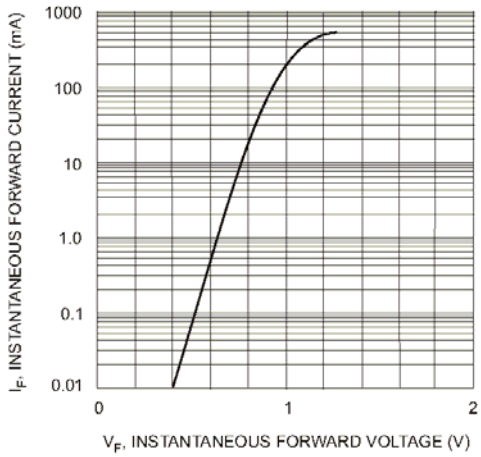


Fig. 1 Forward Characteristics

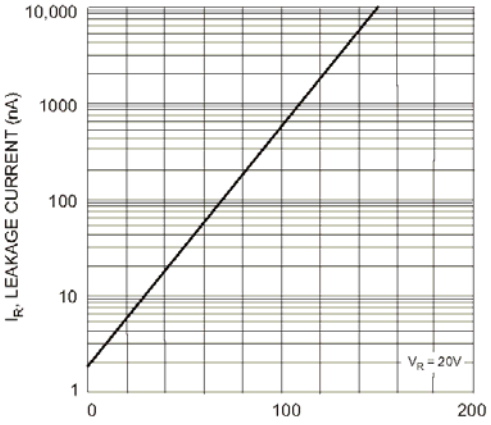


Fig. 2 Leakage Current vs Junction Temperature

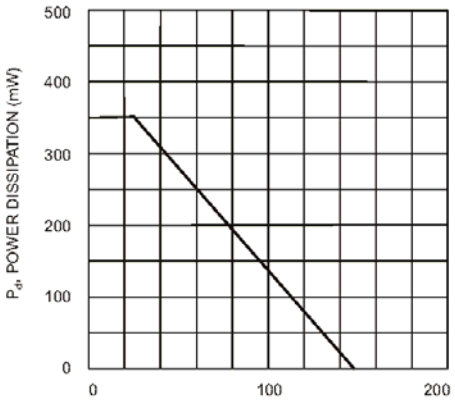


Fig. 3 Power Dissipation Derating