

MMBD7000

PRV : 100 Volts
Io : 200 mA

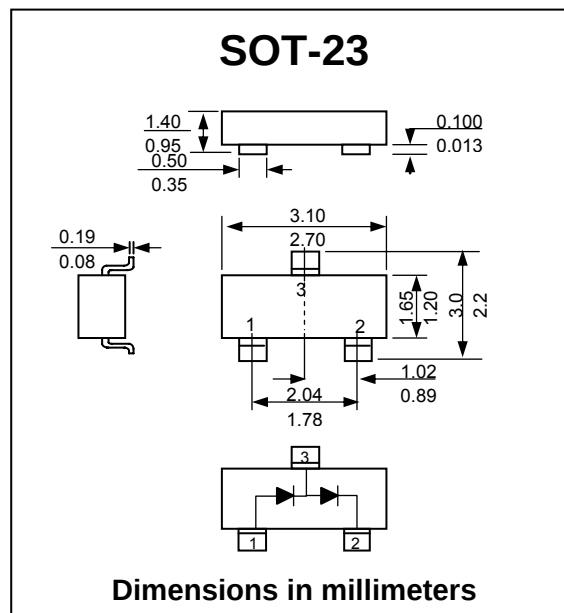
FEATURES :

- * Surface mount package ideally suited for automatic insertion
- * Fast switching speed
- * High conductance
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOT-23 plastic Case
- * Marking Code : RC

DUAL SURFACE MOUNT SWITCHING DIODE



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (Ta =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 μ s at t = 1 s	I_{FSM}	2	A
		1	
Power Dissipation	P_D	350	mW
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (Ta =25 °C)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu A$	$V_{(BR)R}$	100	-	V
Forward Voltage	$I_F = 1 \text{ mA}$	V_F	0.55	0.70	V
	$I_F = 10 \text{ mA}$		0.67	0.82	
	$I_F = 100 \text{ mA}$		0.75	1.10	
	$I_F = 150 \text{ mA}$		-	1.25	
Reverse Current	$V_R = 50 \text{ V}$	I_R	-	1	μA
	$V_R = 100 \text{ V}$		-	3	
	$V_R = 50 \text{ V}, T_J = 125 \text{ }^\circ\text{C}$		-	100	
Total Capacitance	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R$ $R_L = 100 \Omega$	T_{rr}	-	4	ns

RATINGS AND CHARACTERISTIC CURVES (MMBD7000)

FIG.1 - FORWARD CHARACTERISTICS

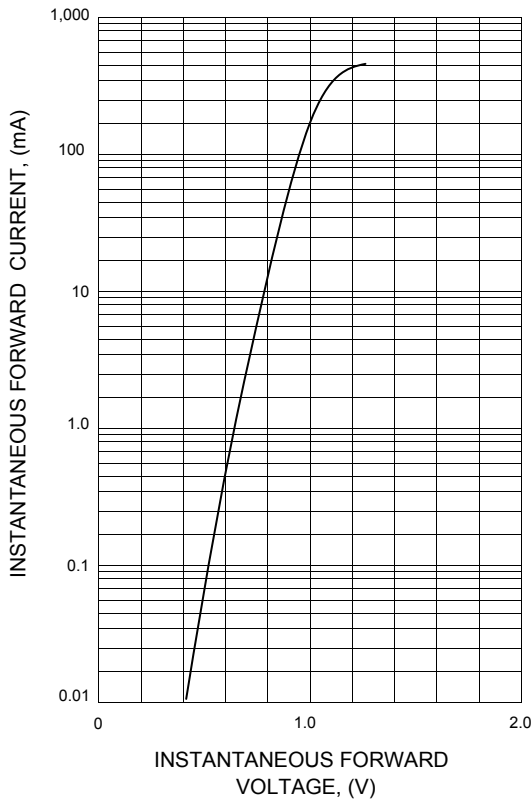


FIG.2 - LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

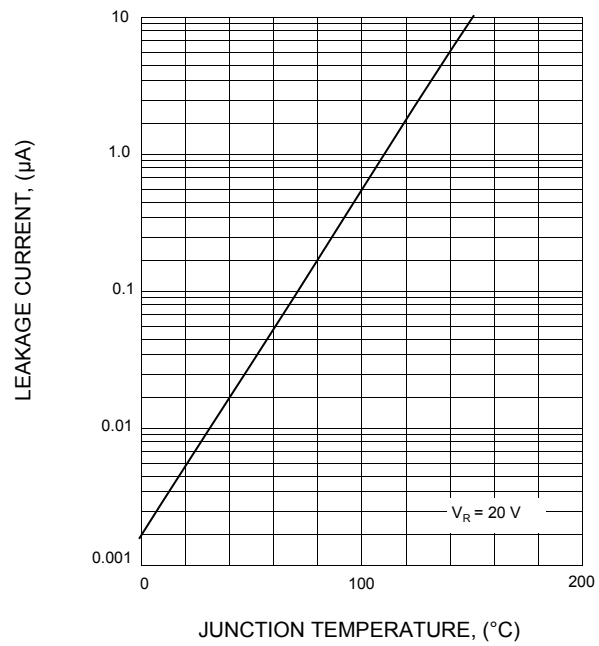


FIG.3 - POWER DISSIPATION DERATING

