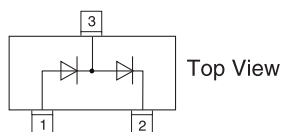
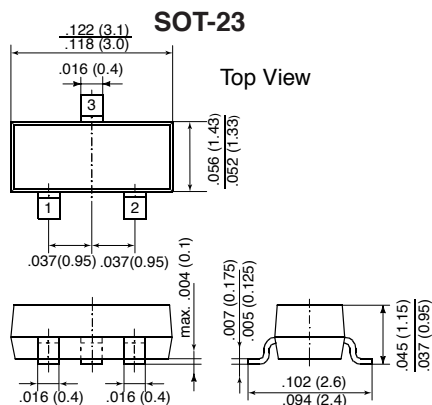


MMBD7000

DUAL SMALL SIGNAL SWITCHING DIODE



Dimensions in inches and (millimeters)

FEATURES

- ◆ Silicon Epitaxial Planar Diode
- ◆ Fast switching dual diode, especially suited for automatic insertion.



MECHANICAL DATA

Case: SOT-23 (TO-236AB) Plastic Package

Weight: approx. 0.008 g

Marking Code: M5C

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified (per diode)

	SYMBOL	VALUE	UNIT
Reverse Voltage	V_R	100	Volts
Forward Current (continuous)	I_F	200	mA
Non-Repetitive Peak Forward Current at $t = 1s$	I_{FSM}	500	mA
Power Dissipation on FR-5 Board $T_A = 25^\circ C$ Derate above 25°C	P_{tot}	225 1.8	mW mW/°C
Total Device Dissipation on Alumina Substrate, $T_A = 25^\circ C$ Derate above 25°C	P_{tot}	300 2.4	mW mW/°C
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	417 ⁽¹⁾ 556 ⁽²⁾	°C/W
Maximum Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	-55 to +150	°C

NOTES

(1) On Alumina Substrate

(2) On FR-5 Board

MMBD7000

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified (per diode).

	SYMBOL	MIN.	MAX.	UNIT
Reverse Breakdown Voltage at $I_R=100\mu\text{A}$	V_{BR}	100	-	Volts
Leakage Current at $V_R = 50\text{ V}$	I_R	-	1.0	μA
at $V_R = 100\text{ V}$	I_R	-	3.0	μA
at $V_R = 50\text{ V}, T_j = 125^\circ\text{C}$	I_R	-	100	μA
Forward Voltage at $I_F = 1\text{ mA}$	V_F	0.55	0.70	Volts
at $I_F = 10\text{ mA}$	V_F	0.67	0.82	Volts
at $I_F = 100\text{ mA}$	V_F	0.75	1.10	Volts
Capacitance at $V_R = 0; f = 1\text{ MHz}$	C_{tot}	-	1.5	pF
Reverse Recovery Time from $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$ measured at $I_{rr} = 1\text{ mA}, R_L = 100\ \Omega$	t_{rr}	-	4.0	ns