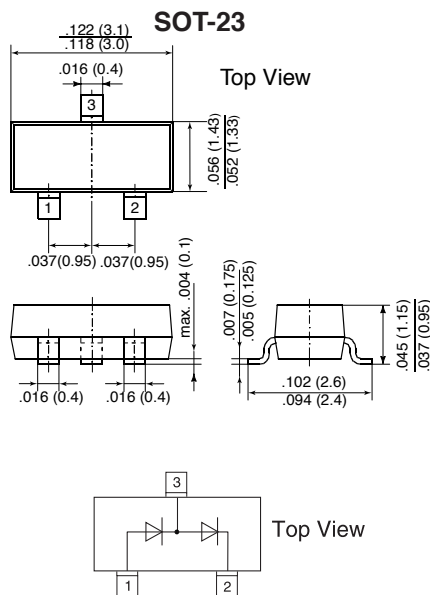


MMBD7000

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