

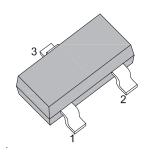
components incorporated

**MMBD7000** 

# **Dual Small Signal Switching Diode**

#### **Features**

- Silicon Epitaxial Planar Diode
- Fast Switching Dual Diode. Especially Suited for Automatic Insertion
- High Conductance
- Electrically Identical to Standard JEDEC
- RoHS Compliant





### **Mechanical Data**

Case:	Case: SOT-23, Plastic Case	
Terminals:	Solderable per MIL-STD-202G, Method 208	
Weight:	Approx. 0.0088 gram	

**SOT-23** 



### **Maximum Ratings** (*T* <sub>Ambient</sub>=25°C unless noted otherwise)

Symbol	Description MMBD7000		Unit	Conditions
	Marking Code	Т3		
VRM	Reverse Voltage	100	V	
<b>V</b> RRM	Peak Reverse Voltage	100	V	
lF(AV)	Forward Average Current	200	mA	
IFSM	Peak Forward Surge Current, Pulse Width=1s	500	mA	
PD	Power Dissipation on FR-5 Board	225	mW	TA=25° C
	Fower dissipation on FR-3 Board	1.8	mW/° C	Derate above 25° C
	Total Device Dissipation on Alumina Substrate	300	mW	TA=25° C
	Total Device Dissipation on Alumina Substrate	2.4	mW/° C	Derate above 25° C
RthJA	Typical Thermal Resistance	417	° C/W	Note1
RthJA	Junction to Ambient Air	556	° C/W	Note2
TJ	Maximum Junction Temperature	150	° C	
Ts	Storage Temperature Range	-55 to +150	° C	

Note: 1) Device on alumina substrate

2) On FR-5 board

(800)-824-8329 (661)-257-6415

# **MMBD7000**

### **Electrical Characteristics** (*T Ambient*=25°C unless noted otherwise)

Symbol	Description	Min.	Max.	Unit	Conditions
<b>V</b> BR	Reverse Breakdown Voltage	100	-	V	IR=100μA
İR	Leakage Current	-	1.0	μA	VR=50V
		-	3.0		VR=100V
		-	100		VR=50V, Tj=125° C
VF	Forward Voltage	0.55	0.70	V	IF=1mA
		0.67	0.82		IF=10mA
		0.75	1.10		IF=100mA
CD	Diode Capacitance	-	1.5	pF	VR=0V, f=1MHz
Trr	Reverse Recovery Time	-	4.0	nS	IF=10mA , IR=10mA, Irr=1mA , RL=100Ω

## **Dimensions in inch (mm)**

#### **SOT-23** 0.020(0.51) 0.015(0.37) 0.120(3.05) 0.104(2.65) 0.055(1.40) 0.098(2.50) 0.043(1.10) 0.047(1.19) 0.083(2.10) 0.035(0.89) 0.041(1.05) 0.007(0.178) 0.006(0.15)0.080(2.05) 0.047(0.89) 0.024(0.61) 0.003(0.076) 0.001(0.013) 0.070(1.78) 0.018(0.45) 0.024(0.61) 0.018(0.45)



### **MMBD7000**

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