



MMBD7000

Dual Surface Mount Switching Diode



Voltage Range
75 Volts
350m Watts Power Dissipation

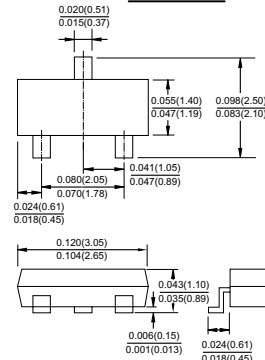
SOT-23

Features

- ✧ Fast switching speed
- ✧ Surface mount package ideally suited for automatic insertion
- ✧ For general purpose switching applications
- ✧ High conductance

Mechanical Data

- ✧ Case: SOT-23, Molded plastic
- ✧ Terminals: Solderable per MIIIL-STD-202, Method 208
- ✧ Polarity: See diagram
- ✧ Marking: KJH
- ✧ Weight: 0.008 gram (approx.)



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	MMBD7000	Units
Non-Repetitive Peak Reverse Voltage	VRM	100	V
Peak Repetitive Reverse Voltage	VRRM	75	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR	53	V
RMS Reverse Voltage	VR(RMS)		
Forward Continuous Current (Note 1)	IFM	300	mA
Average Rectifier Output Current (Note 1)	Io	150	mA
Non-Repetitive Peak Forward Surge Current @ t=1.0uS @ t=1.0S	IFSM	2.0 1.0	A
Power Dissipation (Note 1)	Pd	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R θ JA	357	K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units	
Reverse Breakdown Voltage (Note 3) IR=100uA	V(BR)	75	-	V	
Forward Voltage	VF	IF=1.0mA	0.55	0.70	V
		IF= 10mA	0.67	0.82	
		IF = 50mA	0.75	1.10	
		IF=150mA	-	1.25	
Peak Reverse Current	IR	VR=50V	-	1.0	uA nA
		VR=100V	-	3.0	
		VR=50V, T _J =125°C	-	100	
		VR=20V	-	25	
Junction Capacitance VR=0, f=1.0MHz	C _j	-	2.0	pF	
Reverse Recovery Time (Note 2)	trr	-	4.0	nS	

- Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.
 2. Reverse Recovery Test Conditions: IF=IR=10mA, Irr=0.1 x IR, RL=100Ω.
 3. Test Period < 3000uS.

RATINGS AND CHARACTERISTIC CURVES (MMBD7000)

FIG.1- FORWARD CHARACTERISTICS

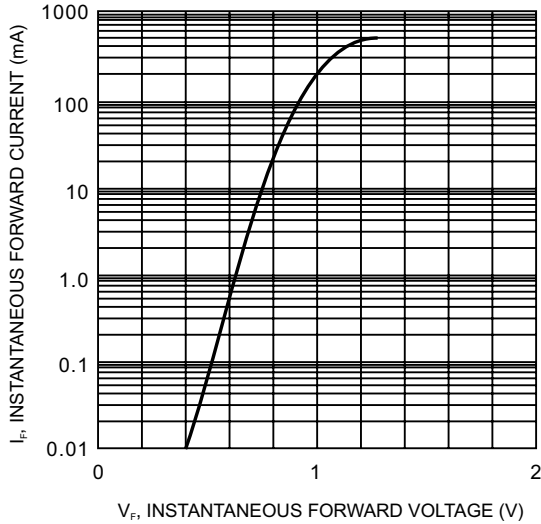


FIG.2- LEAKAGE CURRENT VS JUNCTION TEMPERATURE

