



MMBD7000

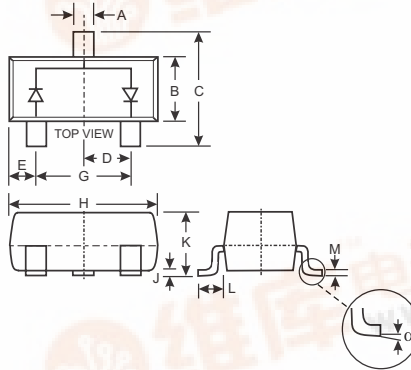
DUAL SURFACE MOUNT SWITCHING DIODE

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- **Lead Free/RoHS Compliant (Note 3)**

Mechanical Data

- Case: SOT-23
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: See Diagram
- Marking: KJH (See Page 2)
- Weight: 0.008 grams (approximate)



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

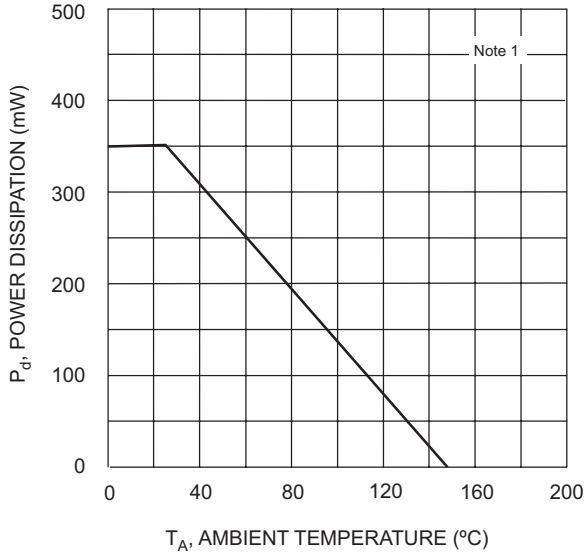
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	75	V
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current (Note 1)	I _{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I _{FSM}	2.0 1.0	A
Power Dissipation (Note 1)	P _d	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	357	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

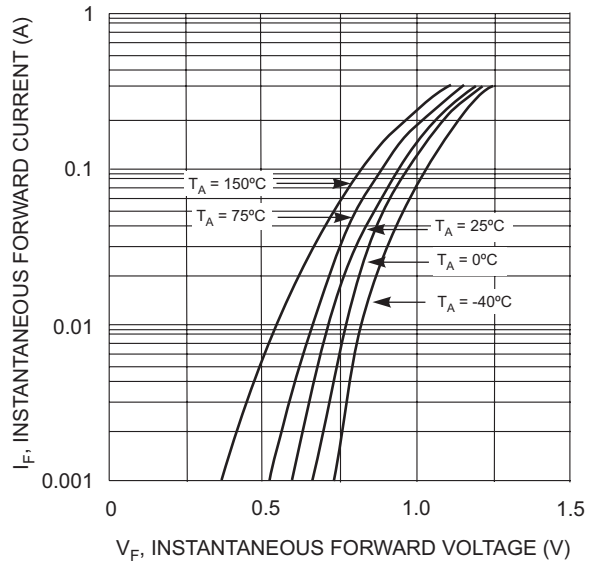
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	75	—	V	I _R = 100μA
Forward Voltage	V _F	0.55 0.67 0.75 —	0.70 0.82 1.10 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Reverse Current (Note 2)	I _R	—	1.0 3.0 100 25	μA μA μA nA	V _R = 50V V _R = 100V V _R = 50V, T _J = 125°C V _R = 20V
Total Capacitance	C _T	—	2.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4.0	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

Notes: 1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
2. Short duration test pulse used to minimize self-heating effect.
3. No purposefully added lead.

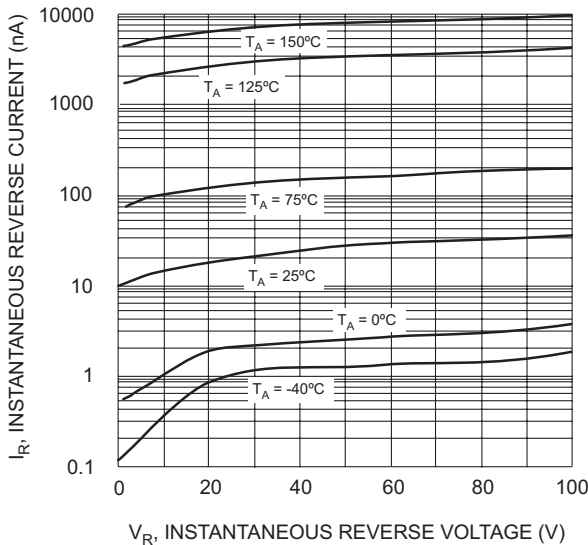




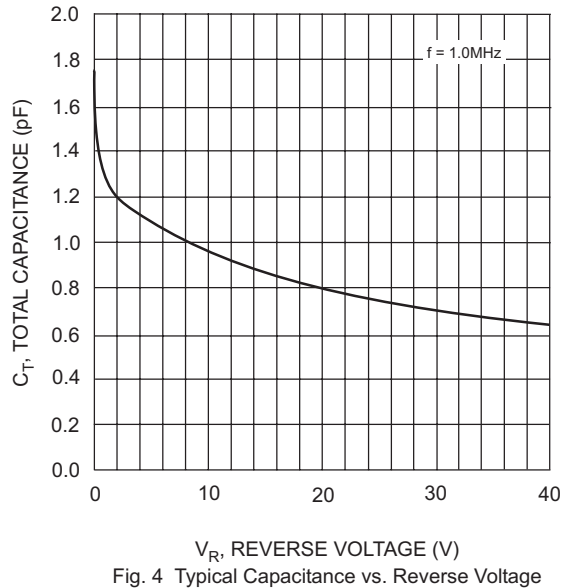
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Dissipation Derating



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Forward Characteristics



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics



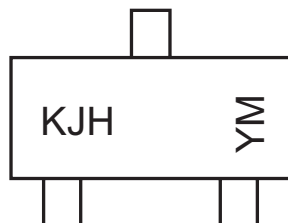
V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Capacitance vs. Reverse Voltage

Ordering Information (Note 4)

Device	Packaging	Shipping
MMD7000-7-F	SOT-23	3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KJH = Product Type Marking Code
YM = Date Code Marking
Y = Year ex: N = 2002
M = Month ex: 9 = September

Date Code Key

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	K	L	M	N	P	R	S	T	U	V	W	X	Y	Z
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Code	1	2	3	4	5	6	7	8	9	O	N	D		



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