

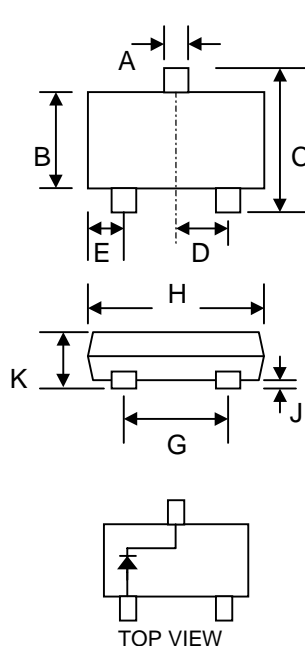
SURFACE MOUNT FAST SWITCHING DIODE

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: T2
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 3**



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Continuous Reverse Voltage	V _R	70	V
Average Rectified Output Current (Note 1)	I _O	200	mA
Peak Forward Surge Current (Note 1) @ t < 1.0μs	I _{FSM}	2.0	A
Power Dissipation (Note 1)	P _d	350	mW
Typical 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

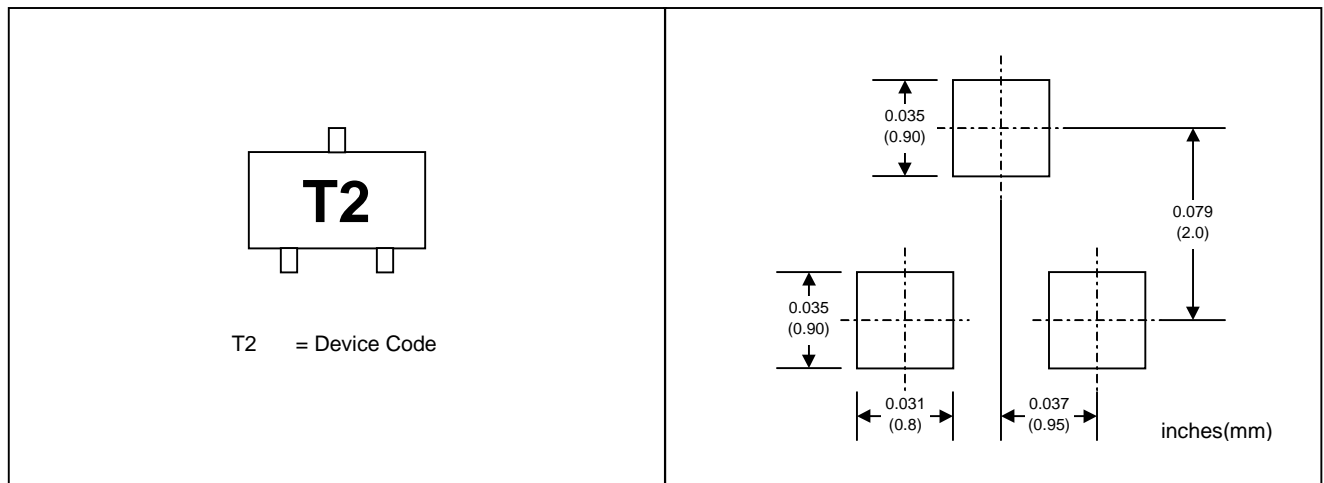
Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	V _{(BR)R}	70	—	V	@ I _R = 100μA
Forward Voltage	V _F	0.55 0.85	0.7 1.1	V	@ I _F = 1.0mA @ I _F = 100mA
Reverse Leakage Current	I _R	—	0.1	μA	@ V _R = 50V
Junction Capacitance	C _j	—	2.5	pF	V _R = 0V, 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

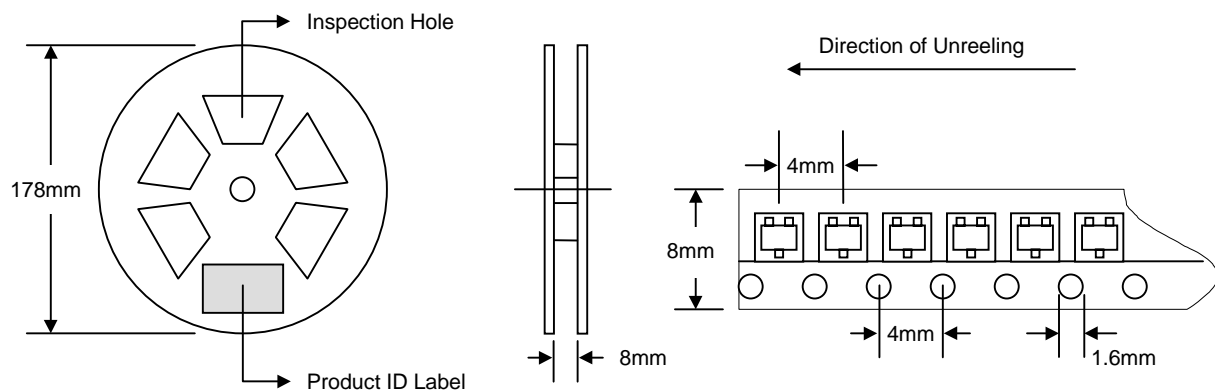
Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

MARKING INFORMATION

RECOMMENDED FOOTPRINT



PACKAGING INFORMATION

TAPE & REEL

Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MMBD6050-T1	SOT-23	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add “-LF” suffix to part number above. For example, MMBD6050-T1-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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