



# MMBD7000

## Dual Switching Diode

### Features

Epoxy meets UL-94 V-0 flammability rating  
Moisure Sensitivity Level 1  
Fast switching speed  
High Conductance  
Surface mount package ideally Suited for Automatic  
Insertion

### Mechanical Data

**Package:** SOT-23

**Terminals:** Tin plated leads, solderable per  
J-STD-002 and JESD22-B102

**Polarity:** Cathode line denotes the cathode end

**Marking:** M5C

### Maximum Ratings (Ta=25 - Unless otherwise specified)

| Item                 | Symbol    | Unit | Value |
|----------------------|-----------|------|-------|
| Peak Reverse Voltage | $V_{RRM}$ | V    | 100   |

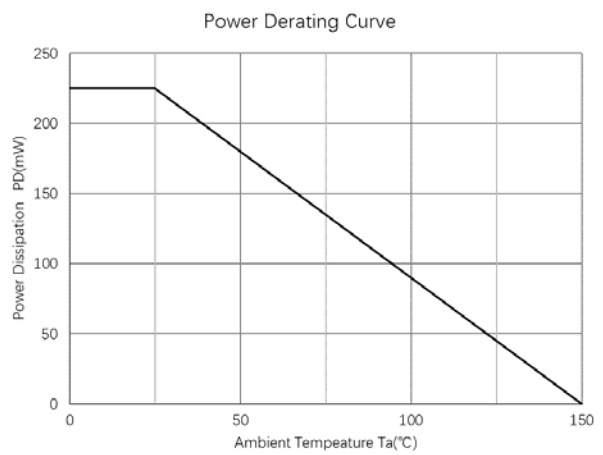
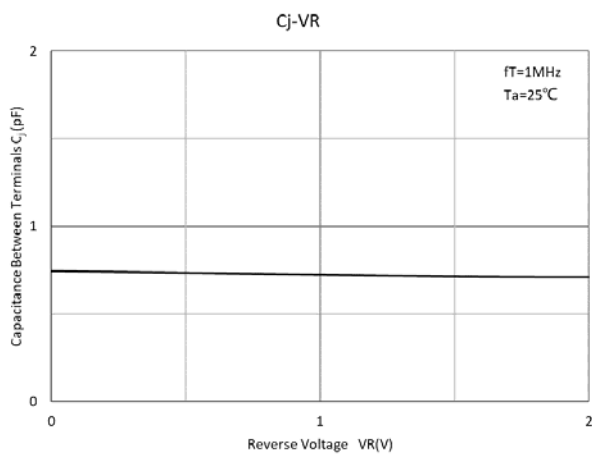
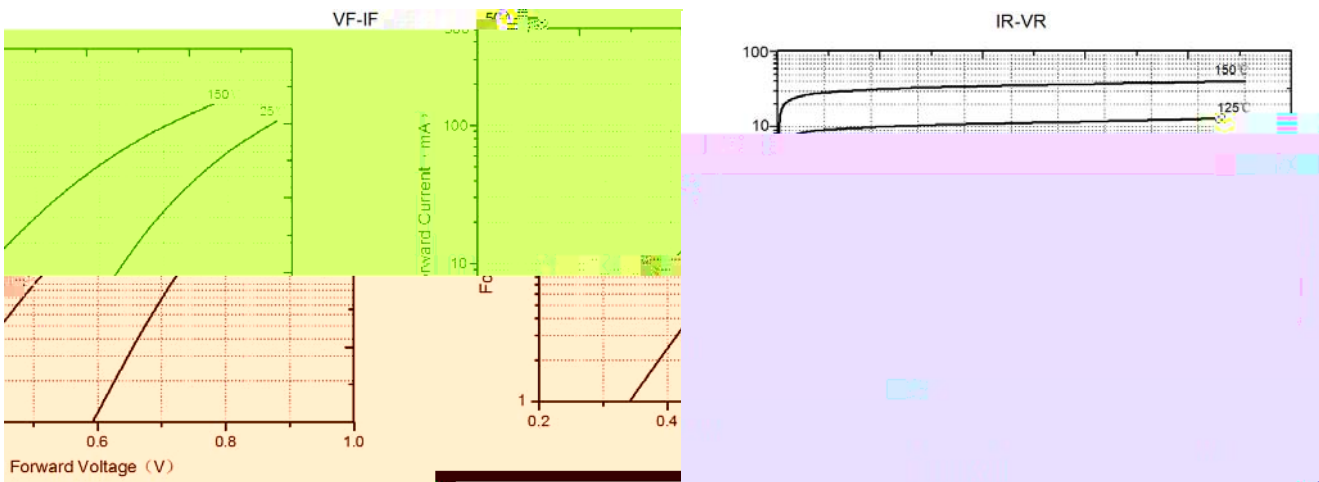


# MMBD7000

## Electrical Characteristics Ta=25 - Unless otherwise specified, Per Leg

| Item                         | Symbol   | Unit | Conditions                                    | Min  | Max  |
|------------------------------|----------|------|---|------|------|
| Reverse Voltage              | $V_R$    | V    | $I_R=100\mu A$                                | 100  |      |
| Forward Voltage              | $V_F$    | V    | $I_F=1mA$                                     | 0.55 | 0.7  |
|                              |          |      | $I_F=10mA$                                    | 0.67 | 0.82 |
|                              |          |      | $I_F=100mA$                                   | 0.75 | 1.1  |
| Reverse Current              | $I_R$    | uA   | $V_R=50V$                                     |      | 1    |
|                              |          |      | $V_R=100V$                                    |      | 3    |
| Typical Junction Capacitance | $C_J$    | pF   | $f=1.0MHz, V_R=0V$                            |      | 2    |
| Reverse Recovery Time        | $T_{rr}$ | ns   | $I_F=10mA, V_R=6V, R_L=100\Omega, I_{rr}=1mA$ |      | 4    |

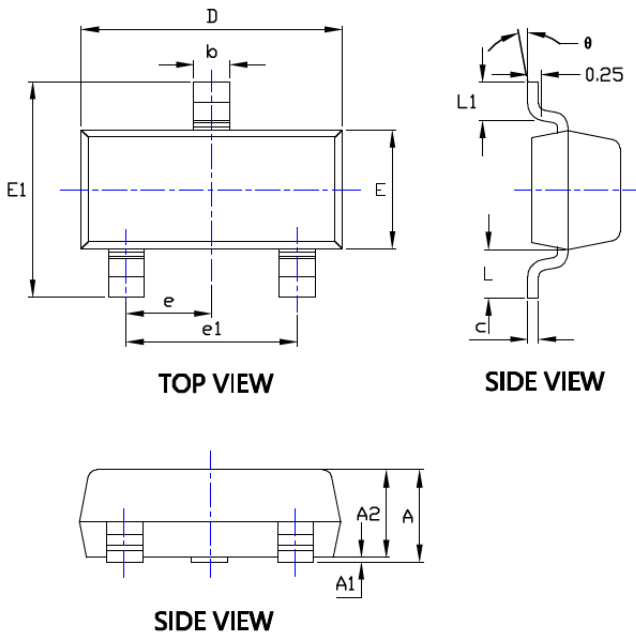
## Typical Characteristics (Per Leg)





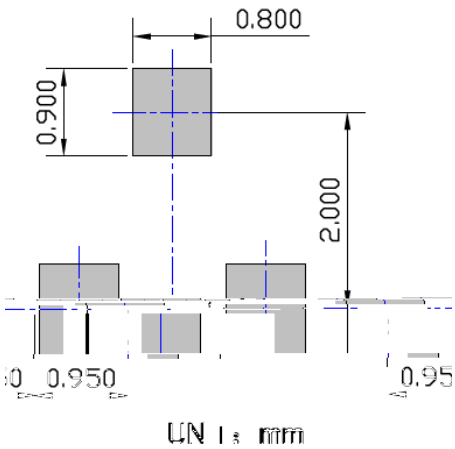
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## SOT-23 Package Outline Dimensions



| SYMBOL    | INCHES    |       | Millimeter |       |
|-----------|-----------|-------|------------|-------|
|           | MTN       | MAX   | MTN        | MAX   |
| 0.045     | 0.900     | 1.150 | A1         | 0.085 |
| 0.034     | 0.000     | 0.100 | A2         | 0.000 |
| 0.041     | 0.900     | 1.050 | e          | 0.035 |
| 0.020     | 0.800     | 0.900 | e1         | 0.012 |
| 0.008     | 0.000     | 0.200 | E          | 0.004 |
| 0.118     | 2.900     | 3.000 | D          | 0.010 |
| 0.065     | 1.200     | 1.400 | E1         | 0.047 |
| 0.100     | 2.200     | 2.350 | L1         | 0.089 |
| 0.950 TYP | 0.950 TYP |       | e          | 0.03  |
| 0.079     | 1.800     | 2.000 | e1         | 0.071 |
| 0.550 REF | 0.550 REF |       |            | 0.02  |
| 0.200     | 0.300     | 0.500 | L1         | 0.012 |

### ■SOT-23 Suggested Pad Layout





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