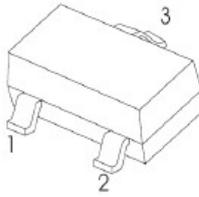


SOT-23

SOT-23 贴片塑封二极管

SOT-23 Plastic-Encapsulate Switching Diode



## 特征 Features

- 开关速度小于 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 最大功率耗散 350mW; Power Dissipation of 350mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

## 机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

| MMBD4148A  | MMBD4148CA | MMBD4148CC | MMBD4148SE |
|------------|------------|------------|------------|
|            |            |            |            |
| MARKING:5H | MARKING:D6 | MARKING:D5 | MARKING:D4 |

极限值和温度特性(TA = 25℃ 除非另有规定)

Maximum Ratings &amp; Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

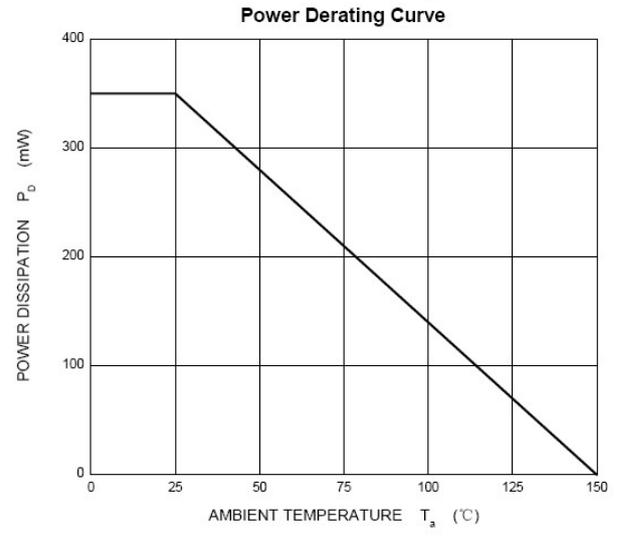
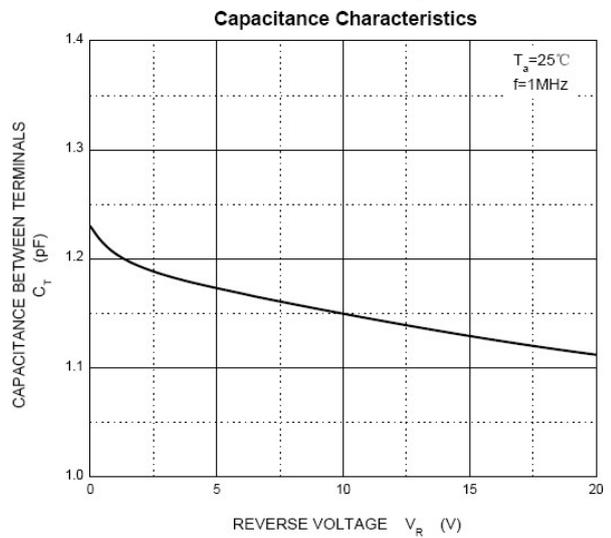
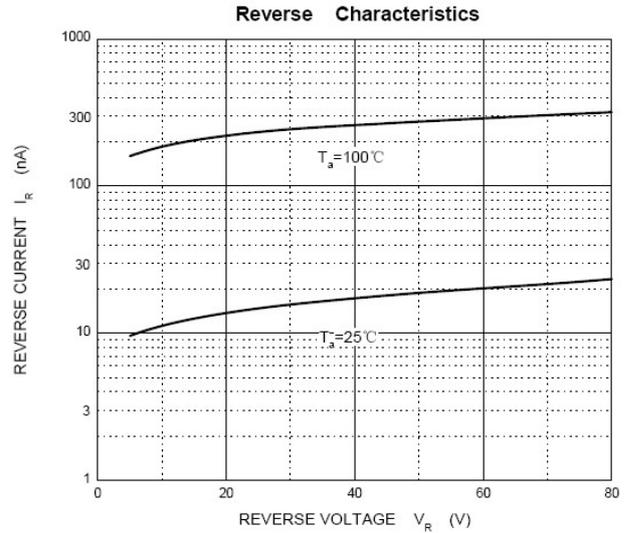
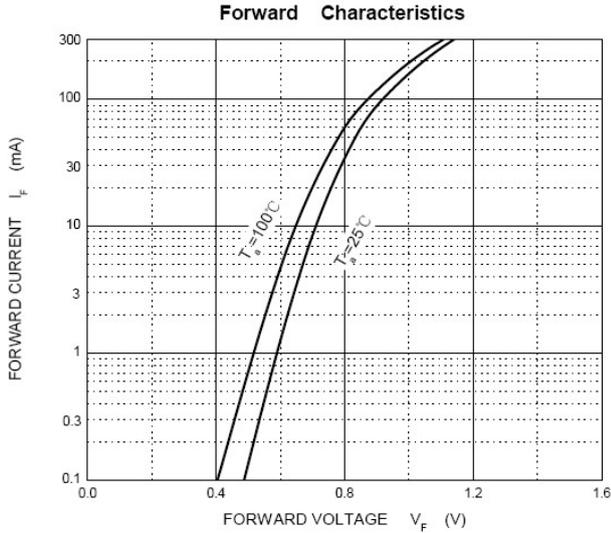
| 参数 Parameters  | 符号 Symbol        | 数值 Value | 单位 Unit |
|--|------------------|----------|---------|
| 反向电压 Reverse Voltage   | V <sub>R</sub>   | 75       | V       |
| 反向峰值电压 Peak Repetitive Reverse Voltage                                 | V <sub>RRM</sub> | 100      | V       |
| 功率消耗 Power Dissipation   | P <sub>d</sub>   | 350      | mW      |
| 平均整流电流 Average Rectified Current                                       | I <sub>O</sub>   | 200      | mA      |
| 正向(不重复)浪涌电流 Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25℃ | I <sub>FSM</sub> | 2.0      | A       |
| 工作结温 Operating junction temperature                                    | T <sub>j</sub>   | 150      | ℃       |
| 存储温度 Storage temperature range   | T <sub>s</sub>   | -55-+150 | ℃       |
| 热阻抗 Thermal Resistance from Junction to Ambient                        | R <sub>θJA</sub> | 357      | ℃/W     |

Valid provided that electrodes are kept at ambient temperature.

电特性 Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

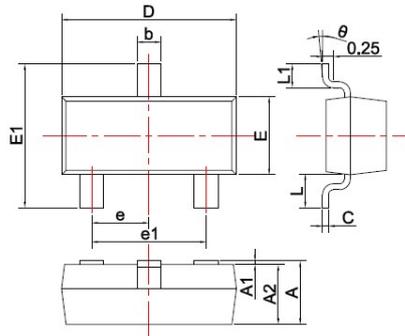
| 符号 Symbols     | 参数 Parameter                  | 测试条件 Test Condition                      | 界限 Limits |      | 单位 Unit |
|----------------|-------------------------------|--|-----------|------|---------|
|                |                               |  | Min       | Max  |         |
| V(BR)          | 反向电压 Reverse Voltage          | I <sub>R</sub> =100uA                    | 75        |      | V       |
| I <sub>R</sub> | 反向漏电流 Reverse Leakage Current | V <sub>R</sub> =75V                      | ---       | 5.0  | uA      |
|                |                               | V <sub>R</sub> =25V                      | ---       | 25   | nA      |
| V <sub>F</sub> | 正向电压 Forward Voltage          | I <sub>F</sub> =10mA                     | ---       | 1.00 | V       |
| TRR            | 反向恢复时间 Reverse Recovery Time  | I <sub>F</sub> = I <sub>R</sub> =10mA    | ---       | 4    | nS      |
|                |                               | V <sub>R</sub> =6V, R <sub>L</sub> =100Ω |           |      |         |
|                |                               | I <sub>RR</sub> =0.1 X I <sub>R</sub>    |           |      |         |
| CT             | 结电容 Capacitance               | V <sub>R</sub> =0V, f=1MHZ               | ---       | 4    | pF      |

Typical Characteristics



SOT-23 PACKAGE OUTLINE

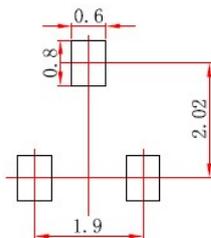
Plastic surface mounted package



| SYMBOL   | DIMENSIONS |       |
|----------|------------|-------|
|          | MIN.       | MAX.  |
| A        | 0.900      | 1.150 |
| A1       | 0.000      | 0.100 |
| A2       | 0.900      | 1.050 |
| b        | 0.300      | 0.500 |
| c        | 0.080      | 0.150 |
| D        | 2.800      | 3.000 |
| E        | 1.200      | 1.400 |
| E1       | 2.250      | 2.550 |
| e        | 0.950TYP   |       |
| e1       | 1.800      | 2.000 |
| L        | 0.550REF   |       |
| L1       | 0.300      | 0.500 |
| $\theta$ | 0°         | 8°    |

Unit: mm

焊盘设计参考 Precautions: PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
1. Controlling dimension; in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.