

Small Signal Switching Diodes

VOLTAGE RANGE: 100V

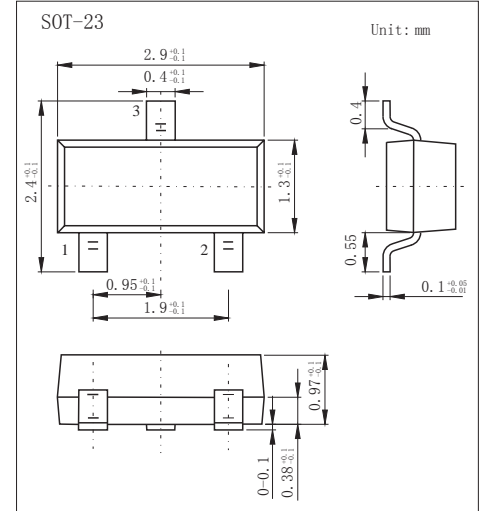
PEAK PULSE POWER: 350mW

FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

MECHANICAL DATA

- Case: SOT-23 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter | Symbol | Limit | Unit |
|--|-----------------|----------|------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 100 | V |
| Peak Repetitive Peak Reverse Voltage | V_{RRM} | 100 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 72 | V |
| Forward Continuous Current | I_{FM} | 300 | mA |
| Average Rectified Output Current | I_O | 200 | mA |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | I_{FSM} | 2.0 | A |
| Power Dissipation | P_D | 350 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 357 | °C/W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{STG} | -55~+150 | °C |

Electrical Specification ($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Conditions |
|-------------------------------|-------------|-----|-----|-----|---------------|--|
| Reverse breakdown voltage | $V_{(BR)1}$ | 100 | | | V | $I_R=100\mu\text{A}$ |
| | $V_{(BR)2}$ | 75 | | | V | $I_R=5\mu\text{A}$ |
| Forward voltage | V_F | | | 1 | V | $I_F=10\text{mA}$ |
| Reverse current | I_{R1} | | | 5 | μA | $V_R=75\text{V}$ |
| | I_{R2} | | | 25 | nA | $V_R=25\text{V}$ |
| Capacitance between terminals | C_T | | | 4 | pF | $V_R=0\text{V}, f=1\text{MHz}$ |
| Reverse recovery time | t_{rr} | | | 4 | ns | $I_F=I_R=10\text{mA}, V_R=6\text{V}, I_{rr}=0.1I_R, R_L=100\Omega$ |

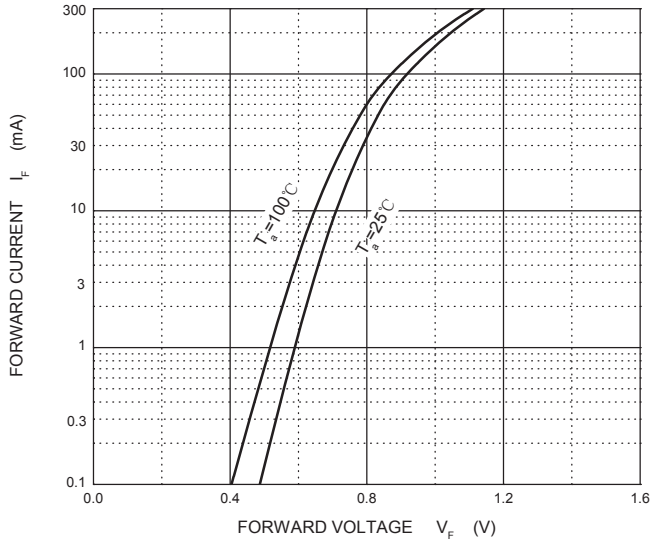
MARKING:

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

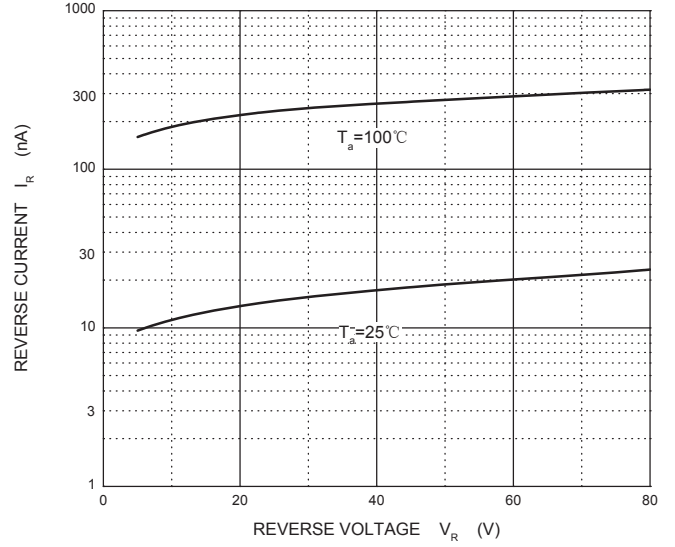


RATINGS AND CHARACTERISTIC CURVES

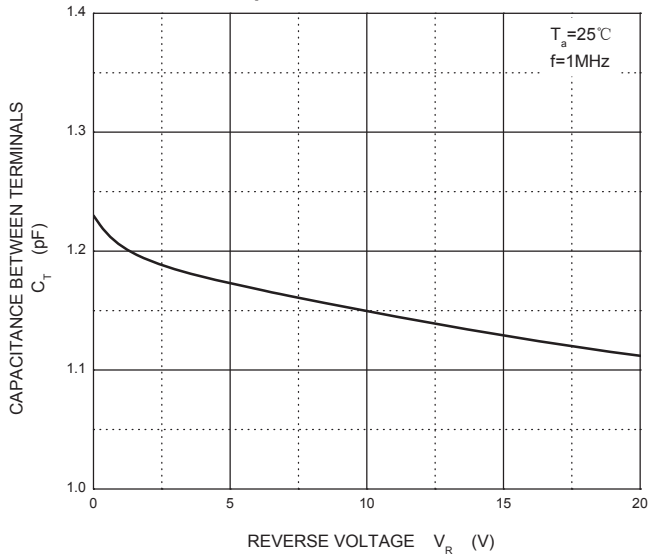
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

