

## Small Signal Switching Diodes

VOLTAGE RANGE: 100V

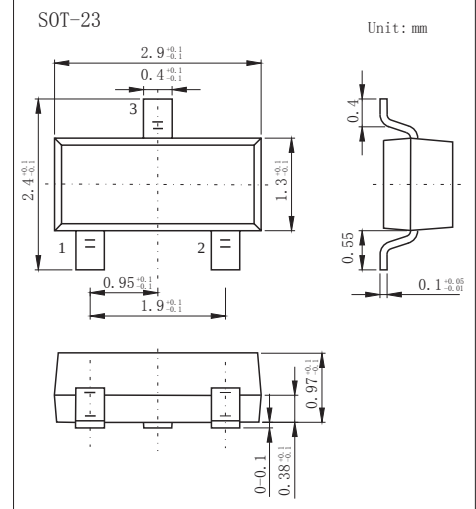
PEAK PULSE POWER: 350mW

### 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

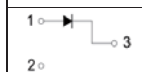
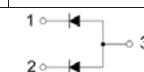
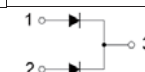
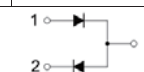
@ 25°C Ambient Temperature (unless otherwise noted)

| 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 ( $T_A=25^\circ C$ unless otherwise specified)

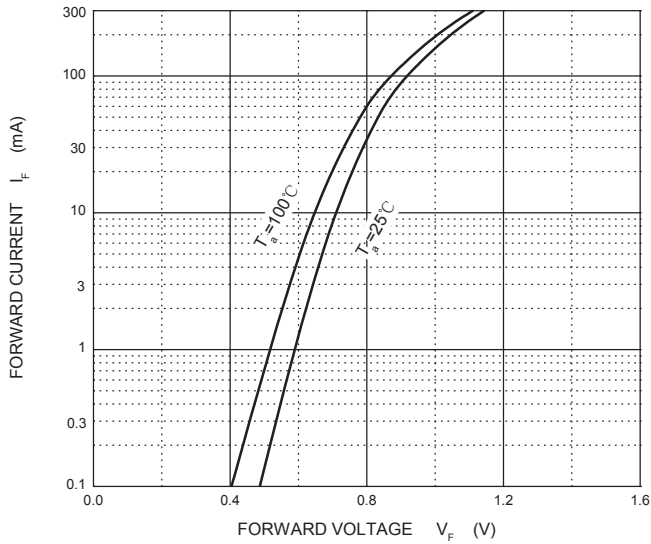
| Parameter                     | Symbol      | Min | Typ | Max | Unit    | Conditions                                                   |
|-------------------------------|-------------|-----|-----|-----|---------|--------------------------------------------------------------|
| Reverse breakdown voltage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

### MARKING:

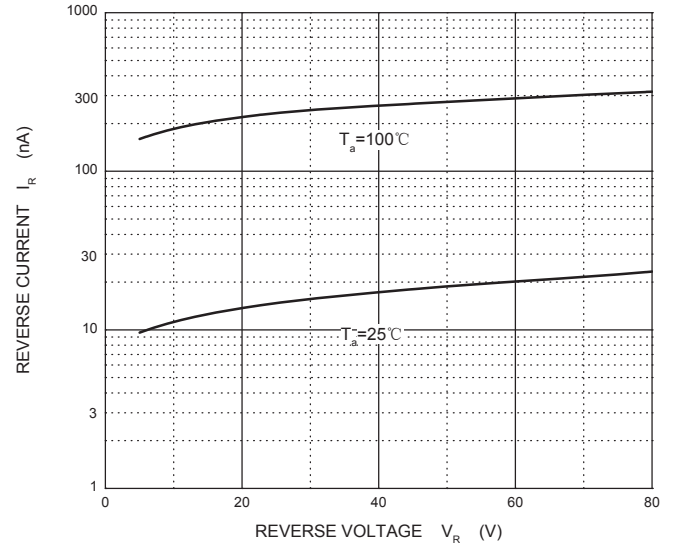
| MMBD4148A                                                                          | MMBD4148CA                                                                          | MMBD4148CC                                                                          | MMBD4148SE                               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

# RATINGS AND CHARACTERISTIC CURVES

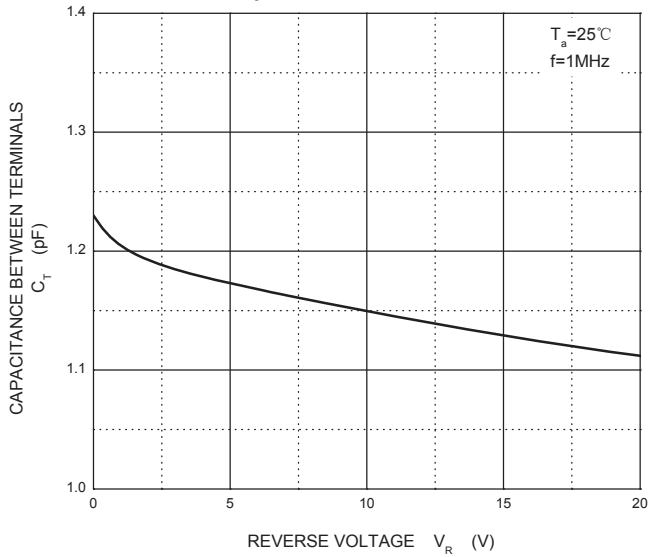
**Forward Characteristics**



**Reverse Characteristics**



**Capacitance Characteristics**



**Power Derating Curve**

