

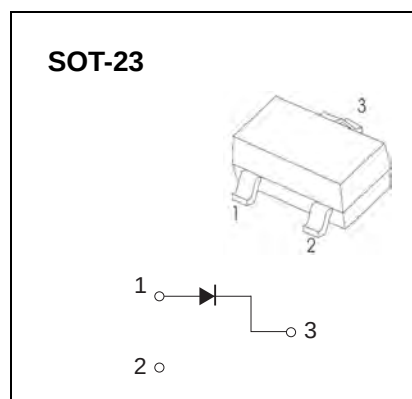


### SOT-23 Plastic-Encapsulate Diodes

#### SWITCHING DIODE

##### FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"
- Moisture Sensitivity Level 1



#### MARKING: KA2

#### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

| Parameter                                                                                   | Symbol                          | Limit      | Unit |
|---------------------------------------------------------------------------------------------|---------------------------------|------------|------|
| Non-Repetitive Peak Reverse Voltage                                                         | $V_{RM}$                        | 100        | V    |
| Peak Repetitive Peak Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 75         | V    |
| RMS Reverse Voltage                                                                         | $V_{R(RMS)}$                    | 53         | V    |
| Forward Continuous Current                                                                  | $I_{FM}$                        | 300        | mA   |
| Average Rectified Output Current                                                            | $I_O$                           | 150        | mA   |
| Peak Forward Surge Current @t=1.0μs<br>@ t=1.0s                                             | $I_{FSM}$                       | 2.0<br>1.0 | A    |
| Power Dissipation                                                                           | $P_d$                           | 350        | mW   |
| Thermal Resistance Junction to Ambient                                                      | $R_{\theta JA}$                 | 357        | °C/W |
| Junction Temperature                                                                        | $T_J$                           | 150        | °C   |
| Operating/Storage Temperature                                                               | $T_{STG}$                       | -55~+150   | °C   |

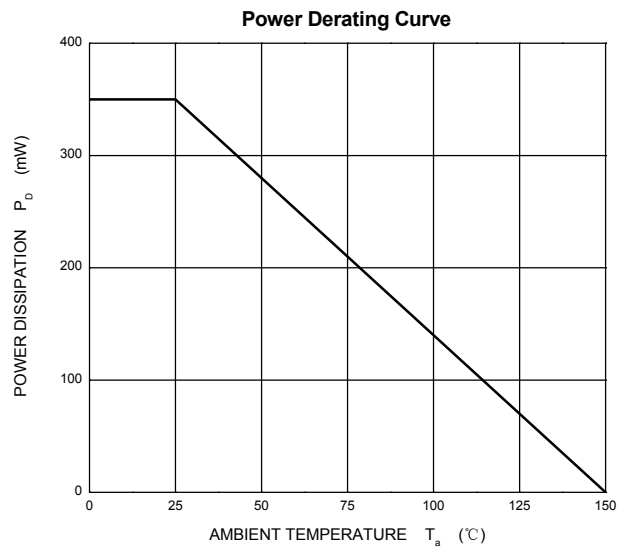
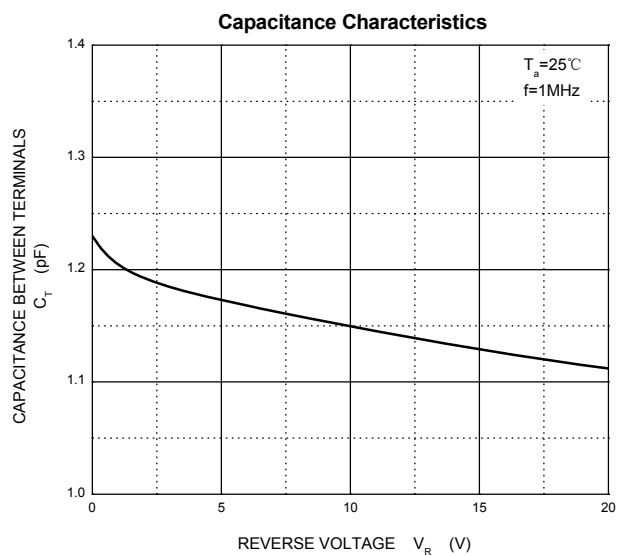
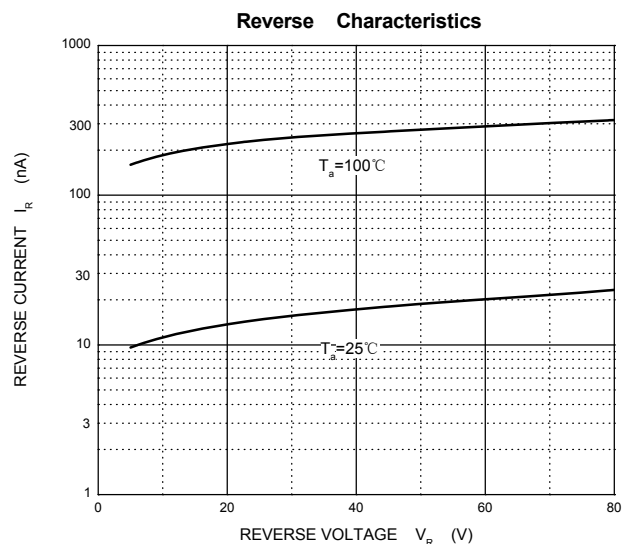
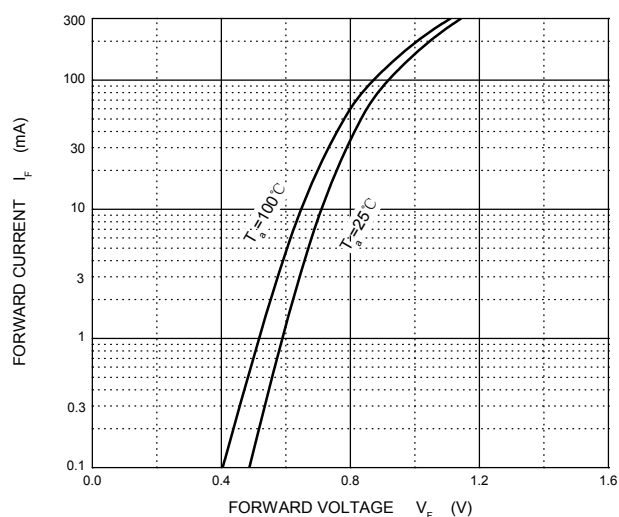
#### Electrical Ratings @Ta=25°C

| Parameter                     | Symbol     | Min | Typ | Max   | Unit | Conditions                                               |
|-------------------------------|------------|-----|-----|-------|------|----------------------------------------------------------|
| Reverse breakdown voltage     | $V_{(BR)}$ | 75  |     |       | V    | $I_R=100\mu A$                                           |
| Forward voltage               | $V_{F1}$   |     |     | 0.715 | V    | $I_F=1mA$                                                |
|                               | $V_{F2}$   |     |     | 0.855 | V    | $I_F=10mA$                                               |
|                               | $V_{F3}$   |     |     | 1.0   | V    | $I_F=50mA$                                               |
|                               | $V_{F4}$   |     |     | 1.25  | V    | $I_F=150mA$                                              |
| Reverse current               | $I_{R1}$   |     |     | 2.5   | μA   | $V_R=75V$                                                |
|                               | $I_{R2}$   |     |     | 25    | nA   | $V_R=20V$                                                |
| Capacitance between terminals | $C_T$      |     |     | 2     | pF   | $V_R=0V, f=1MHz$                                         |
| Reverse recovery time         | $t_{rr}$   |     |     | 4     | ns   | $I_F=I_R=10mA$<br>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |



### SOT-23 Plastic-Encapsulate Diodes

## Typical Characteristics

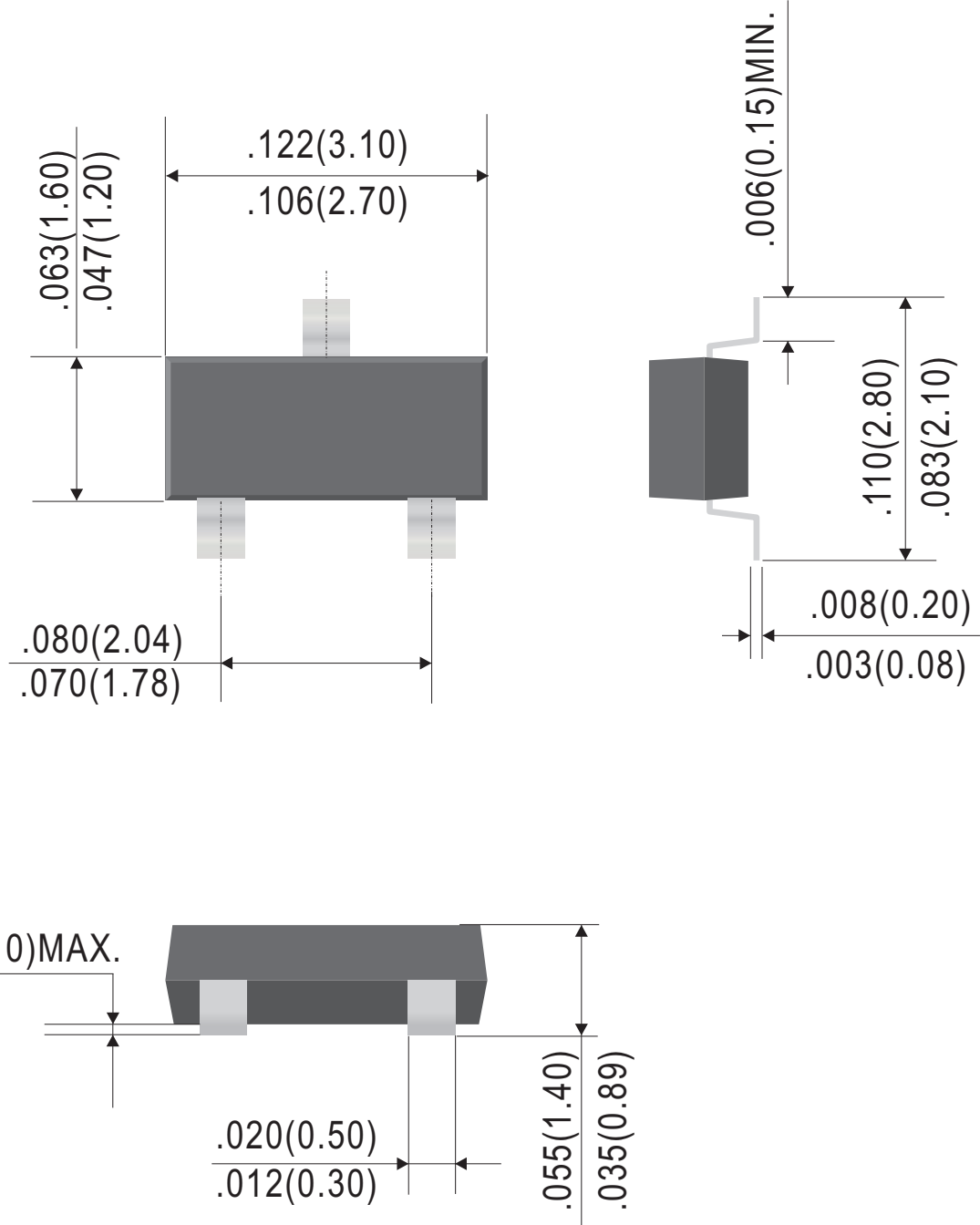




## SOT-23 Plastic-Encapsulate Diodes

### Outline Drawing

### SOT-23



Dimensions in inches and (millimeters)

Rev.D



### SOT-23 Plastic-Encapsulate Diodes

#### Ordering Information:

| Device PN                                      | Packing                |
|------------------------------------------------|------------------------|
| MMBD4148-T <sup>(1)</sup> G <sup>(2)</sup> -WS | Tape&Reel: 3 Kpcs/Reel |

Note: (1) Packing code, Tape&Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

#### \*\*\*Disclaimer\*\*\*

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