

MMBD3004S

SWITCHING DIODE

| | | | |
|----------------|-----------------|--------------|---------------|
| VOLTAGE | 240 Volt | POWER | 410 mW |
|----------------|-----------------|--------------|---------------|

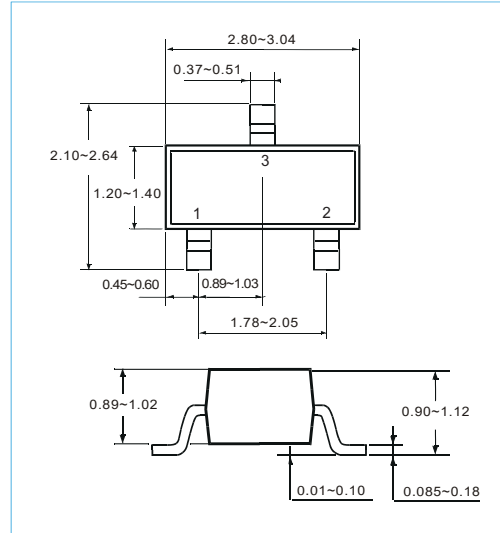
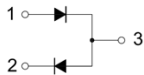
SOT-23 Unit:mm

FEATURES

- Fast Switching Speed
- Low Reverse Current
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

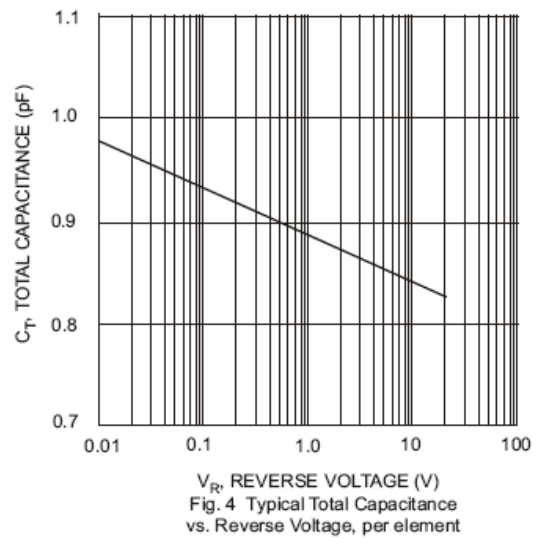
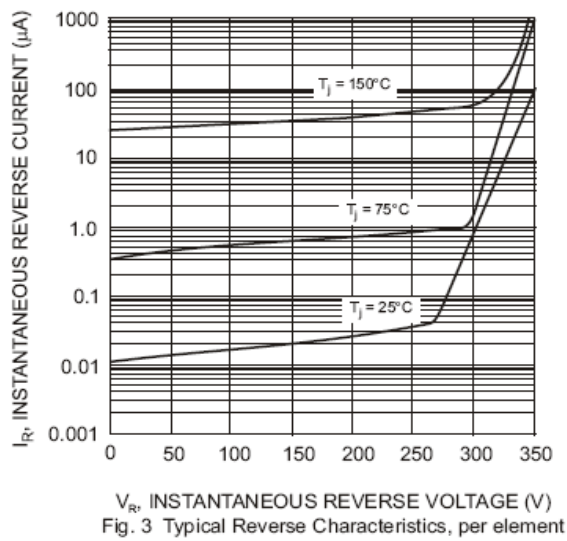
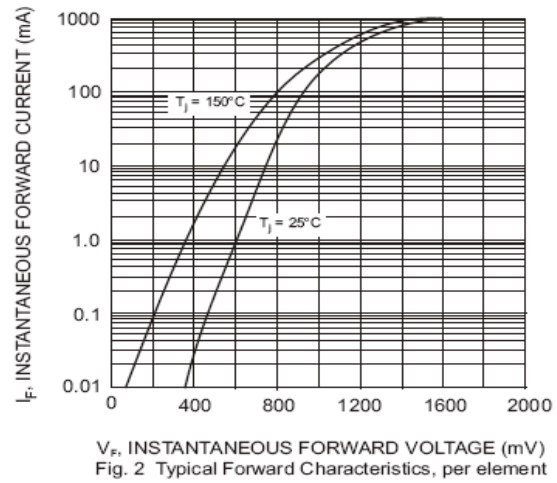
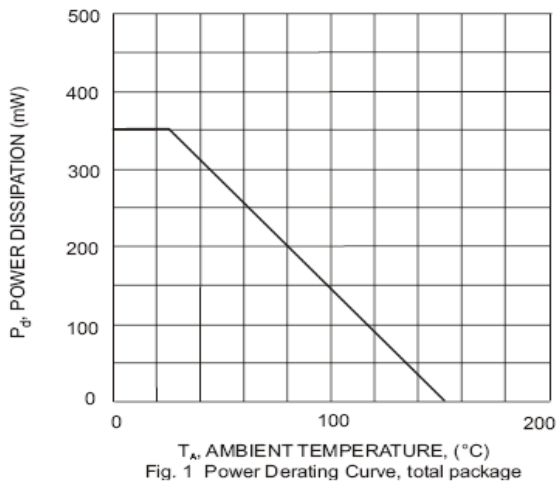
| Parameter | Symbol | Value | Units |
|--|-----------------|-------------|--------------------|
| Peak reverse voltage | V_{RM} | 350 | V |
| Reverse voltage | V_R | 240 | V |
| Peak Repetitive Forward Current | I_{FRM} | 625 | mA |
| Average Rectified Output Current | I_O | 225 | mA |
| Non-repetitive Peak Forward surge current @ $t=1\mu\text{s}$ | I_{FSM} | 4.0 | A |
| Power dissipation | P_D | 410 | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | 500 | $^\circ\text{C/W}$ |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

| Characteristic | Symbol | Conditions | Min | Typ | Max | Unit |
|-----------------------|------------|--|-----|-----|----------------------|---------------|
| Reverse voltage | $V_{(BR)}$ | ($I_R = 150 \mu\text{A}$) | 350 | | | V |
| Reverse current | I_R | ($V_R = 240 \text{V}$) | | | 0.1 | μA |
| Forward Voltage | V_F | ($I_F = 20 \text{mA}$) ($I_F = 100 \text{mA}$) ($I_F = 200 \text{mA}$) | | | 0.87 1.00 1.25 | V |
| Total Capacitance | C_T | ($V_R = 0 \text{V}$, $f = 1.0 \text{MHz}$) | | | 5.0 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=30\text{mA}$, $I_R=30\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100 \Omega$ | | | 50 | ns |

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Typical Characteristics

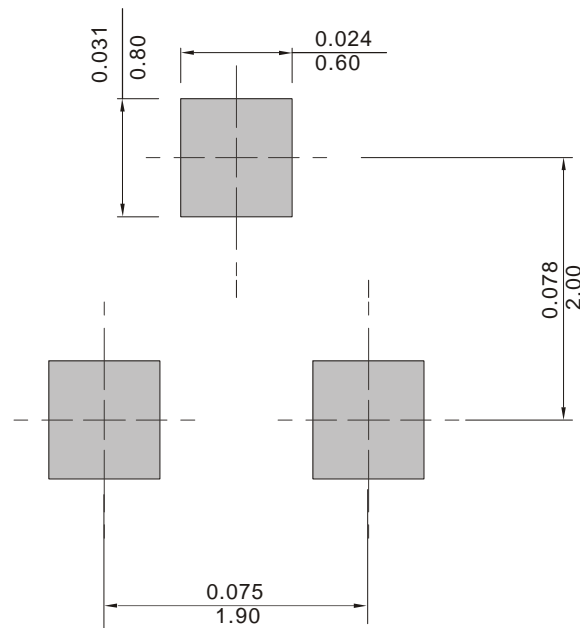


MMBD3004S

MOUNTING PAD LAYOUT

SOT-23

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

| Part Number | Case | Reel Size | QUANTITY |
|-------------|--------|-----------|----------|
| MMBD3004S | SOT-23 | 7 Inch | 3000 |