



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Small Signal Product

350mW, SMD Switching Diode

FEATURES

- Fast switching speed
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)



SOT-23



MECHANICAL DATA

- Case: SOT-23 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Weight: 8 ± 0.5 mg

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | |
|--|-----------------------------------|-----------------------------------|------|
| PARAMETER | SYMBOL | VALUE | UNIT |
| Power Dissipation | P _D | 350 | mW |
| Repetitive Peak Reverse Voltage | V _{RRM} | 350 | V |
| Repetitive Peak Forward Current | I _{FRM} | 625 | mA |
| Mean Forward Current | I _O | 225 | mA |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | 4 1 | A |
| | | Pulse Width=1μs Pulse Width=1s | |
| Thermal Resistance (Junction to Ambient) | R _{θJA} | 357 | °C/W |
| Junction and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | °C |

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|---------------------------|---|-----|------|------|
| Reverse Breakdown Voltage | I _R =100μA V _(BR) | 350 | - | V |
| Forward Voltage | I _F =100mA I _F =200mA V _F | - | 1.00 | V |
| | | - | 1.25 | |
| Reverse Leakage Current | V _R =240V V _R =240V, T _J =150°C I _R | - | 0.1 | μA |
| | | - | 100 | |
| Junction Capacitance | V _R =1V, f=1.0MHz C _J | - | 5 | pF |
| Reverse Recovery Time | I _F =I _R =30mA, R _L =100Ω, I _{RR} =0.1I _R t _{rr} | - | 50 | ns |

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

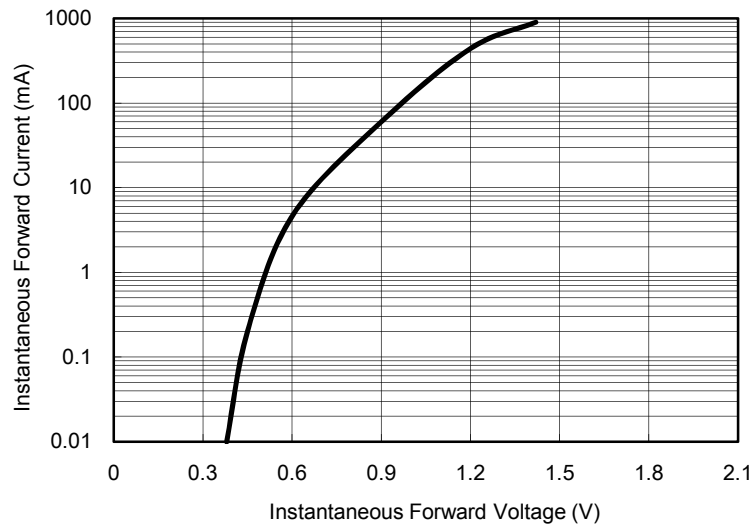


Fig. 2 Typical Reverse Characteristics

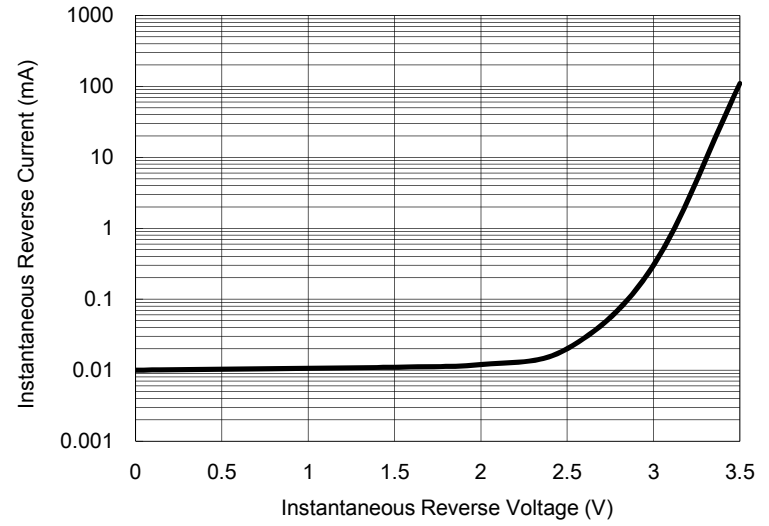


Fig. 3 Admissible Power Dissipation Curve

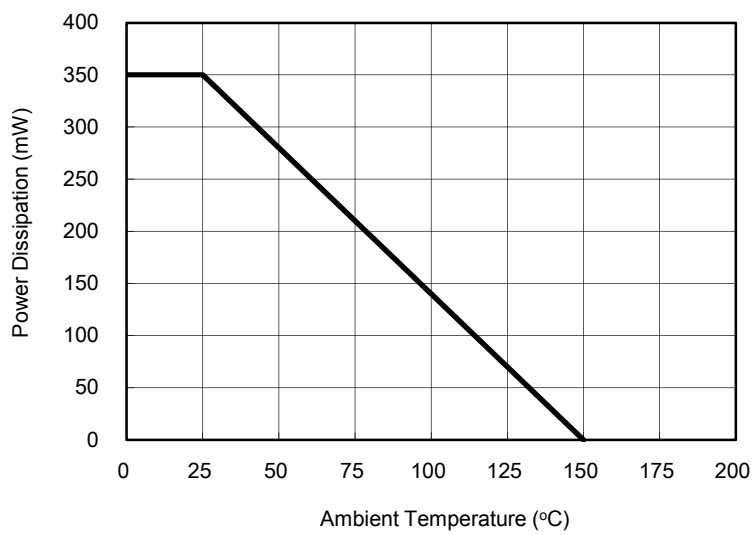
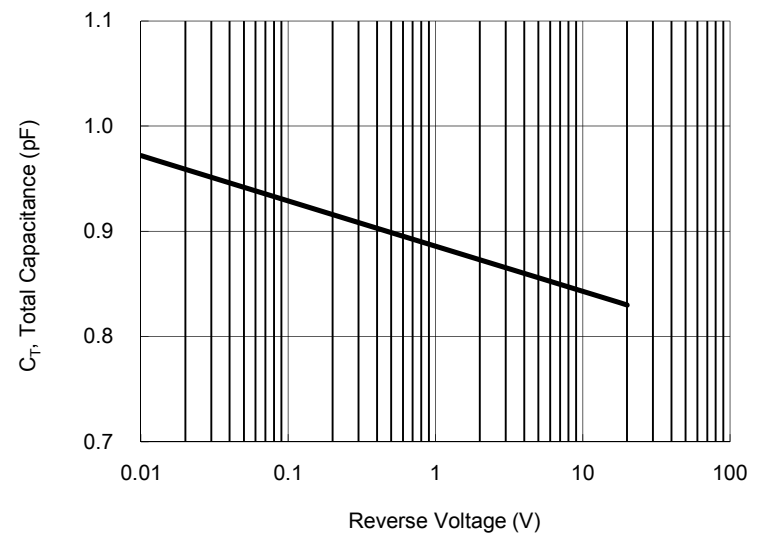


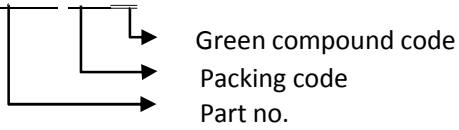
Fig. 4 Typical Capacitance VS. Reverse Voltage



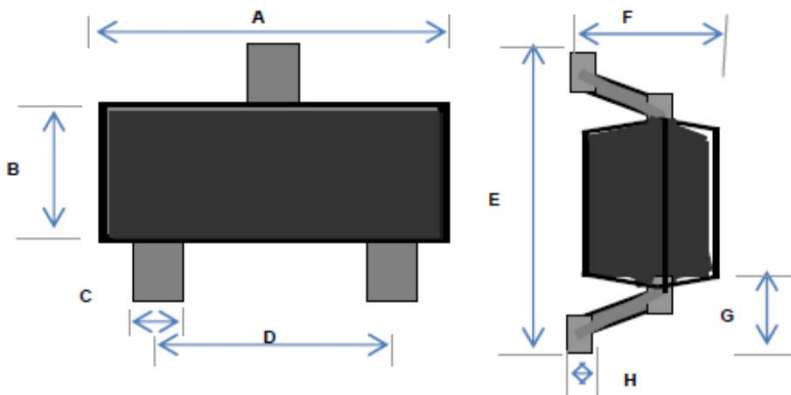
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ORDER INFORMATION (EXAMPLE)

MMBD3004 RFG

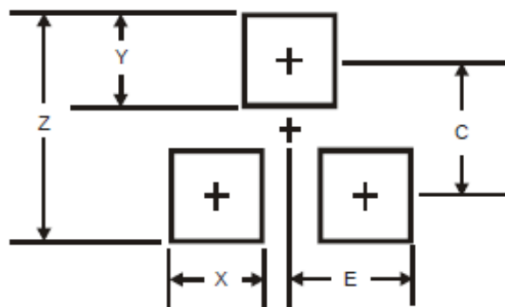


PACKAGE OUTLINE DIMENSIONS
SOT-23



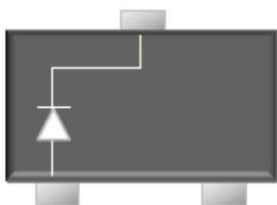
| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|------|-------------|-------|
| | Min | Max | Min | Max |
| A | 2.70 | 3.10 | 0.106 | 0.122 |
| B | 1.10 | 1.50 | 0.043 | 0.059 |
| C | 0.30 | 0.51 | 0.012 | 0.020 |
| D | 1.78 | 2.04 | 0.070 | 0.080 |
| E | 2.10 | 2.64 | 0.083 | 0.104 |
| F | 0.89 | 1.30 | 0.035 | 0.051 |
| G | 0.55 REF | | 0.022 REF | |
| H | 0.10 REF | | 0.004 REF | |

SUGGEST PAD LAYOUT

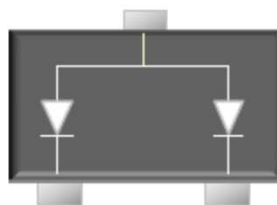


| DIM. | Unit (mm) | Unit (inch) |
|------|-----------|-------------|
| | Typ. | Typ. |
| Z | 2.8 | 0.110 |
| X | 0.7 | 0.028 |
| Y | 0.9 | 0.035 |
| C | 1.9 | 0.075 |
| E | 1.0 | 0.039 |

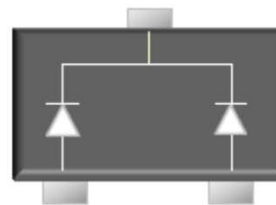
PIN CONFIGURATION



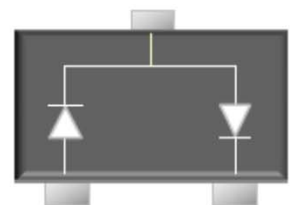
MMBD3004



MMBD3004CA



MMBD3004CC



MMBD3004SE

MARKING

| Part No. | Marking |
|------------|---------|
| MMBD3004 | HC |
| MMBD3004CA | RA |
| MMBD3004CC | PZ |
| MMBD3004SE | PY |

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