



Micro Commercial Components

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Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- 150°C Junction Temperature
- High Conductance

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking: D6
- Weight: 0.008 grams (approx.)

Maximum Ratings @ 25°C Unless Otherwise Specified

| Characteristic | Symbol | Value | Unit |
|--|----------------|-------------|------|
| Working Inverse Voltage | V_{IV} | 75 | V |
| DC Forward Current | I_{FM} | 600 | mA |
| Average Rectified Current | $I_{F(AV)}$ | 200 | mA |
| Recurrent Peak Forward Current | I_{FRM} | 700 | mA |
| Peak Forward Surge Current @ $t=1.0s$ @ $t=1.0us$ | I_{FSM} | 1.0 2.0 | A |
| Power Dissipation | P_d | 350 | mW |
| Thermal Resistance | R | 357 | °C/W |
| Operation & Storage Temp. Range | T_j, T_{STG} | -55 to +150 | °C |

Note: 1) These ratings are based on a max. junction temperature of 150 degrees C
2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operation

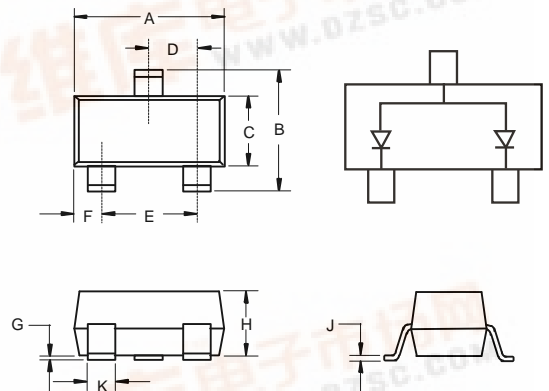
Electrical Characteristics @ 25°C Unless Otherwise Specified

| Charateristic | Symbol | Min | Max | Unit | Test Cond. |
|---------------------------------------|----------|-----|-----------------|----------------|---|
| Breakdown Voltage | V_R | 75 | | V | $I_R=100uA$ |
| Maximum Instantaneous Forward Voltage | V_F | | 1.0 | V | $I_F=10mA$ |
| Maximum Instantaneous Reverse Current | I_R | | 25 50 5.0 | nA uA uA | $V_R=20V, T_A=150°C$ $V_R=75V$ |
| Junction Capacitance | C_j | | 4 | pF | $V_R=0V, f=1.0MHz$ |
| Reverse Recovery Time | t_{rr} | | 4 | ns | $I_F=10mA, V_R=6.0V,$ $I_{RR}=1.0mA,$ $R_L=100 OHM$ |

MMBD4148CA

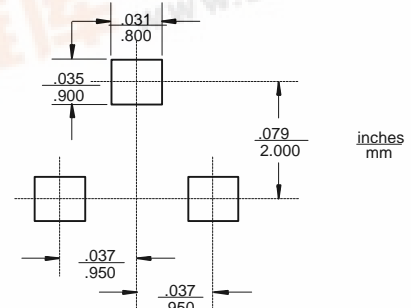
High Conductance Ultra Fast Diode 350mW

SOT-23



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .110 | .120 | 2.80 | 3.04 | |
| B | .083 | .098 | 2.10 | 2.64 | |
| C | .047 | .055 | 1.20 | 1.40 | |
| D | .035 | .041 | .89 | 1.03 | |
| E | .070 | .081 | 1.78 | 2.05 | |
| F | .018 | .024 | .45 | .60 | |
| G | .0005 | .0039 | .013 | .100 | |
| H | .035 | .044 | .89 | 1.12 | |
| J | .003 | .007 | .085 | .180 | |
| K | .015 | .020 | .37 | .51 | |

Suggested Solder Pad Layout





TM

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