

**Micro Commercial Components** 



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# MMBD4148CA

# High Conductance Ultra Fast Diode 350mW

# **Features**

- Surface Mount Package Ideally Suited for Automatic Insertion
- 150°C Junction Temperature
- High Conductance
- Lead Free Finish/Rohs Compliant ("P"Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

# Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: D6
- Weight: 0.008 grams (approx.)

# Maximum Ratings @ 25°C Unless Otherwise Specified

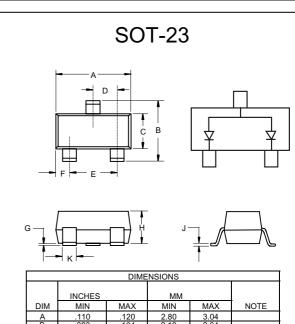
| Characteristic                                  | Symbol               | Value       | Unit |
|---|----------------------|-------------|------|
| Working Inverse Voltage                         | Vıv                  | 75          | V    |
| DC Forward Current                              | $I_{FM}$             | 600         | mA   |
| Average Rectified Current                       | $I_{F(AV)}$          | 200 mA      |      |
| Recurrent Peak Forward Current                  | I <sub>FRM</sub>     | 700         | mA   |
| Peak Forward Surge Current@ t=1.0s<br>@ t=1.0us | lғsм                 | 1.0<br>2.0  | А    |
| Power Dissipation                               | $P_d$                | 350         | mW   |
| Thermal Resistance                              | R                    | 357         | °C/W |
| Operation & Storage Temp. Range                 | Tj, T <sub>STG</sub> | -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

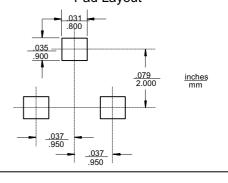
## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Charateristic                               | Symbol          | Min | Max | Unit | Test Cond.                                  |
|---|-----------------|-----|-----|------|---|
| Breakdown Voltage                           | $V_R$           | 75  |     | V    | I <sub>R</sub> =100uA                       |
| Maximum<br>Instantaneous<br>Forward Voltage | $V_{F}$         |     | 1.0 | ٧    | I <sub>F</sub> =10mA                        |
| Maximum                                     |                 |     | 25  | nA   | V <sub>R</sub> =20V                         |
| Instantaneous Reverse                       | I <sub>R</sub>  |     | 50  | uA   | V <sub>R</sub> =20V T <sub>A</sub> =150°C   |
| Current                                     |                 |     | 5.0 | uA   | $V_R=75V$                                   |
| Junction Capacitance                        | C <sub>j</sub>  |     | 4   | pF   | V <sub>R</sub> =0V, f=1.0MHz                |
| Dayoraa Dagayoru                            |                 |     |     |      | I <sub>F</sub> =10mA, V <sub>R</sub> =6.0V, |
| Reverse Recovery Time                       | t <sub>rr</sub> |     | 4   | ns   | I <sub>RR</sub> =1.0mA,                     |
| Time  |                 |     |     |      | R <sub>L</sub> =100 OHM                     |



| DIMENSIONS |        |       |      |      |      |  |
|------------|--------|-------|------|------|------|--|
|            | INCHES |       | MM   |      |      |  |
| DIM        | MIN    | MAX   | MIN  | MAX  | NOTE |  |
| Α          | .110   | .120  | 2.80 | 3.04 |      |  |
| В          | .083   | .104  | 2.10 | 2.64 |      |  |
| С          | .047   | .055  | 1.20 | 1.40 |      |  |
| D          | .035   | .041  | .89  | 1.03 |      |  |
| Е          | .070   | .081  | 1.78 | 2.05 |      |  |
| F          | .018   | .024  | .45  | .60  |      |  |
| G          | .0005  | .0039 | .013 | .100 |      |  |
| Н          | .035   | .044  | .89  | 1.12 |      |  |
| J          | .003   | .007  | .085 | .180 |      |  |
| K          | .015   | .020  | .37  | .51  |      |  |

### Suggested Solder Pad Layout





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## Ordering Information:

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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