



**THE DATASHEET OF  
MMBD4148CA-TP**



# 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

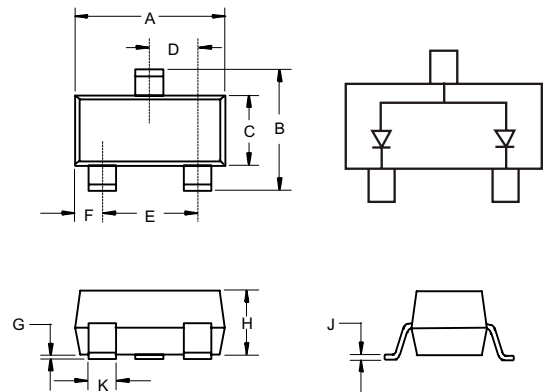
| Characteristic  | Symbol         | Value       | Unit |
|---|----------------|-------------|------|
| Working Inverse Voltage                                 | $V_{IV}$       | 75          | V    |
| DC Forward Current                                      | $I_{FM}$       | 600         | mA   |
| Average Rectified Current                               | $I_{F(AV)}$    | 200         | mA   |
| Recurrent Peak Forward Current                          | $I_{FRM}$      | 700         | mA   |
| Peak Forward Surge Current @ $t=1.0s$<br>@ $t=1.0\mu s$ | $I_{FSM}$      | 1.0<br>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

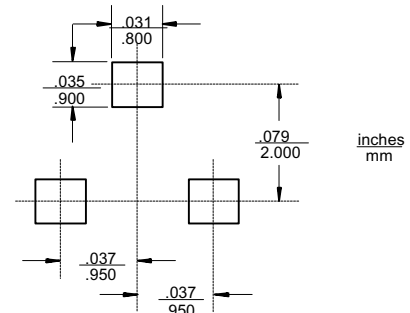
| Characteristic                        | Symbol   | Min | Max             | Unit           | Test Cond.  |
|---------------------------------------|----------|-----|-----------------|----------------|---|
| Breakdown Voltage                     | $V_R$    | 75  |                 | V              | $I_R=100\mu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

## SOT-23



| DIM | INCHES |       | MM   |      | NOTE |
|-----|--------|-------|------|------|------|
|     | MIN    | MAX   | MIN  | MAX  |      |
| A   | .110   | .120  | 2.80 | 3.04 |      |
| B   | .083   | .104  | 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





Micro Commercial Components

### Ordering Information :

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

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

#### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

#### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

#### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

[www.mccsemi.com](http://www.mccsemi.com)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View MMBD4148CA-TP](#) on WIN SOURCE
- ⊖ [Micro Commercial Co](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management