



MMBD4448HTM

SURFACE MOUNT FAST SWITCHING DIODE ARRAY

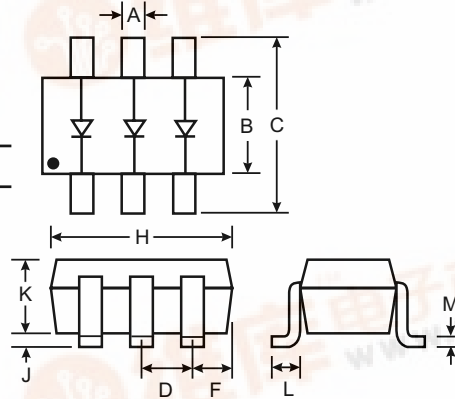
NEW PRODUCT

Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

Mechanical Data

- Case: SOT-26, Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Orientation: See Diagram
- Marking: KAD
- Weight: 0.016 grams (approx.)



| SOT-26 | | | |
|----------------------|-------|------|------|
| Dim | Min | Max | Typ |
| A | 0.35 | 0.50 | 0.38 |
| B | 1.50 | 1.70 | 1.60 |
| C | 2.70 | 3.00 | 2.80 |
| D | — | — | 0.95 |
| F | — | — | 0.55 |
| H | 2.90 | 3.10 | 3.00 |
| J | 0.013 | 0.10 | 0.05 |
| K | 1.00 | 1.30 | 1.10 |
| L | 0.35 | 0.55 | 0.40 |
| M | 0.10 | 0.20 | 0.15 |
| All Dimensions in mm | | | |

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|--|-------------|------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | V |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 80 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 57 | V |
| Forward Continuous Current | I _{FM} | 500 | mA |
| Average Rectified Output Current | I _O | 250 | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s | I _{FSM} | 4.0 2.0 | A |
| Power Dissipation (Note 1) | P _d | 225 | mW |
| Thermal Resistance Junction to Ambient Air (Note 1) | R _{θJA} | 555 | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | °C |

Electrical Characteristics @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|-------------------------------|-----------------|---------------------|------------------------------|----------------------|--|
| Forward Voltage (Note 2) | V _{FM} | 0.62 — — — | 0.72 0.855 1.0 1.25 | V | I _F = 5.0mA I _F = 10mA I _F = 100mA I _F = 150mA |
| Peak Reverse Current (Note 2) | I _{RM} | — | 100 50 30 25 | nA μA μA nA | V _R = 70V V _R = 75V, T _j = 150°C V _R = 25V, T _j = 150°C V _R = 20V |
| Junction Capacitance | C _j | — | 3.5 | pF | V _R = 6, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | 4.0 | ns | V _R = 6V, I _F = 5mA |

Notes: 1. Device mounted on FR-5 PCB 1.0 x 0.75 x 0.062 inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
2. Short duration test pulse used to minimize self-heating effect.

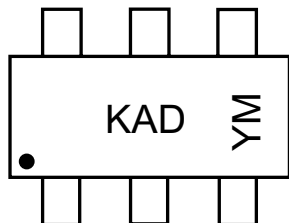


Ordering Information (Note 3)

| Device | Packaging | Shipping |
|---------------|-----------|------------------|
| MMBD4448HTM-7 | SOT-26 | 3000/Tape & Reel |

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KAD = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

| Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|------|------|------|------|------|------|------|------|
| Code | J | K | L | M | N | O | P |

| Month | Jan | Feb | March | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | O | N | D |

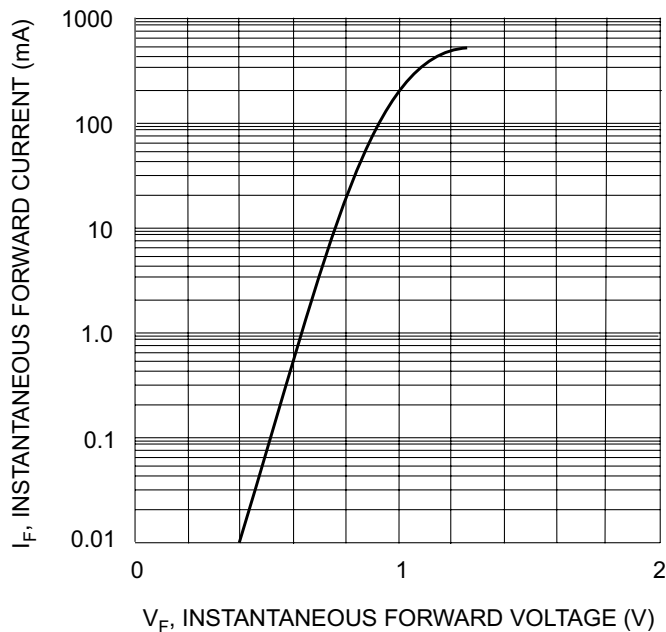


Fig. 1 Forward Characteristics

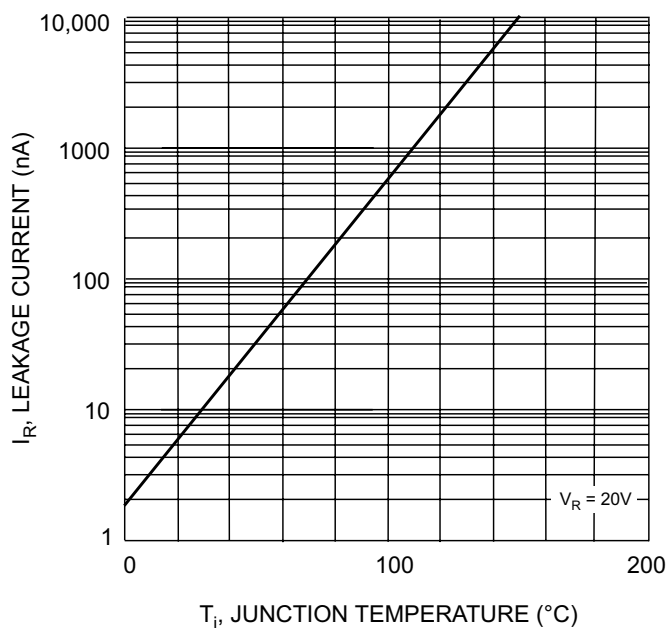


Fig. 2 Leakage Current vs Junction Temperature