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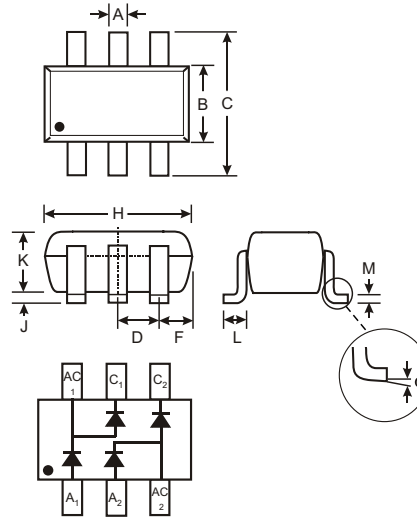
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### Features

- Two Series Diode Circuits Connect to Form Full Wave Bridge
- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating

### Mechanical Data

- Case: SOT-26, Molded Plastic
- Plastic Material: UL Flammability Rating Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: KAE (See Page 2)
- Weight: 0.016 grams (approx.)
- Ordering Information: See below



| 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 |
| $\alpha$             | 0°    | 8°   | —    |
| All Dimensions in mm |       |      |      |

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified, per element

| Characteristic  | Symbol             | Value       | Unit                      |
|---|--------------------|-------------|---------------------------|
| Repetitive Peak Reverse Voltage   | $V_{RRM}$          | 350         | V                         |
| Working Peak Reverse Voltage<br>DC Blocking Voltage                                     | $V_{RWM}$<br>$V_R$ | 300         | V                         |
| RMS Reverse Voltage   | $V_{R(RMS)}$       | 212         | V                         |
| Forward Continuous Current (Note 1)   | $I_F$              | 225         | mA                        |
| Peak Repetitive Forward Current (Note 1)  | $I_{FRM}$          | 625         | mA                        |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$<br>@ $t = 1.0\text{s}$ | $I_{FSM}$          | 4.0<br>1.0  | A                         |
| Power Dissipation (Note 1)  | $P_d$              | 350         | mW                        |
| Thermal Resistance Junction to Ambient Air (Note 1)                                     | $R_{\theta JA}$    | 357         | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$     | -65 to +150 | $^\circ\text{C}$          |

### Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified, per element

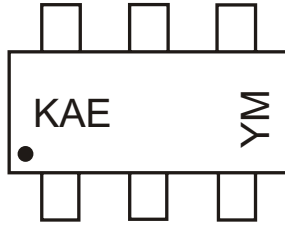
| Characteristic                     | Symbol      | Min | Typ                  | Max                 | Unit                | Test Condition  |
|------------------------------------|-------------|-----|----------------------|---------------------|---------------------|---|
| Reverse Breakdown Voltage (Note 2) | $V_{(BR)R}$ | 350 | —                    | —                   | V                   | $I_R = 100\mu\text{A}$  |
| Forward Voltage (Note 2)           | $V_F$       | —   | 0.78<br>0.93<br>1.03 | 0.87<br>1.0<br>1.25 | V                   | $I_F = 20\text{mA}$<br>$I_F = 100\text{mA}$<br>$I_F = 200\text{mA}$     |
| Reverse Current (Note 2)           | $I_R$       | —   | 30<br>35             | 100<br>100          | nA<br>$\mu\text{A}$ | $V_R = 240\text{V}$<br>$V_R = 240\text{V}, T_J = 150^\circ\text{C}$     |
| Total Capacitance                  | $C_T$       | —   | 1.0                  | 5.0                 | pF                  | $V_R = 0\text{V}, f = 1.0\text{MHz}$                                    |
| Reverse Recovery Time              | $t_{rr}$    | —   | —                    | 50                  | ns                  | $I_F = I_R = 30\text{mA}$ ,<br>$I_{rr} = 3.0\text{mA}, R_L = 100\Omega$ |

### Ordering Information (Note 3)

| Device        | Packaging | Shipping         |
|---------------|-----------|------------------|
| MMBD3004BRM-7 | SOT-26    | 3000/Tape & Reel |

- Notes:
1. Part mounted on FR-4 board with recommended pad layout, 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.
  3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



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

Date Code Key

| Year | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------|------|------|------|------|------|------|------|
| Code | P    | R    | S    | T    | U    | V    | W    |

| 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   |

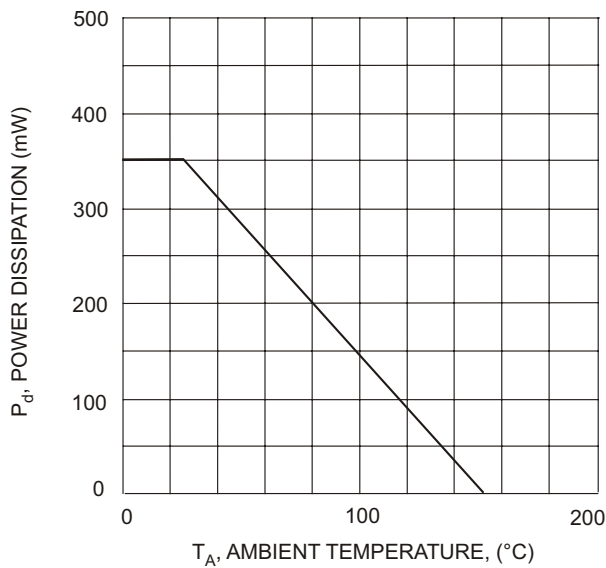


Fig. 1 Power Derating Curve, total package

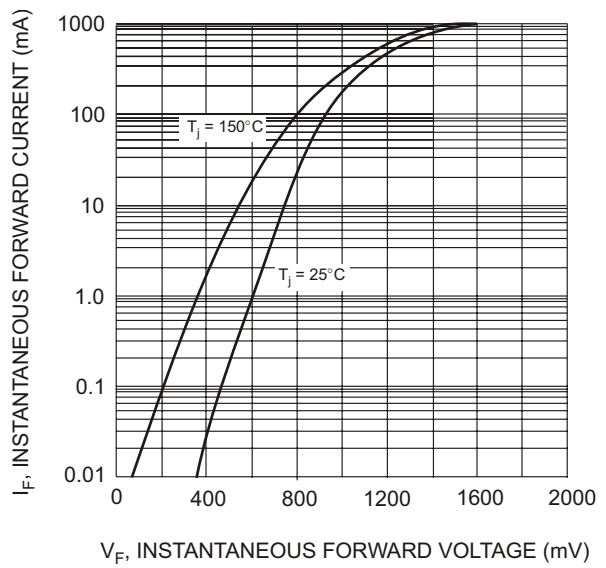


Fig. 2 Typical Forward Characteristics, per element

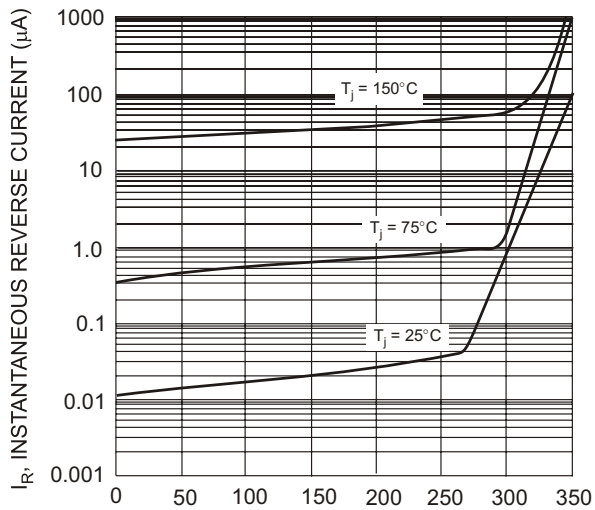


Fig. 3 Typical Reverse Characteristics, per element

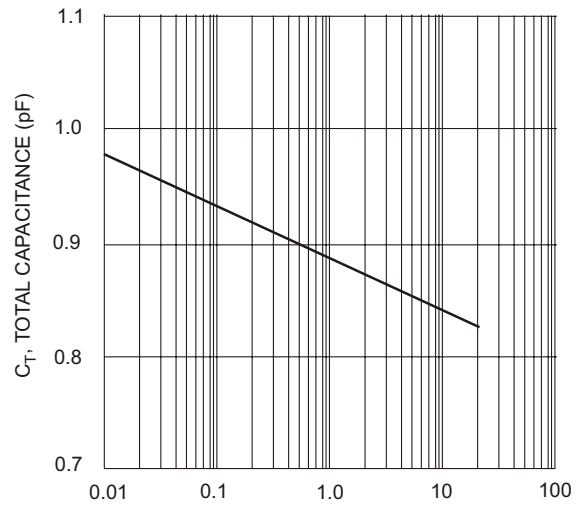


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element