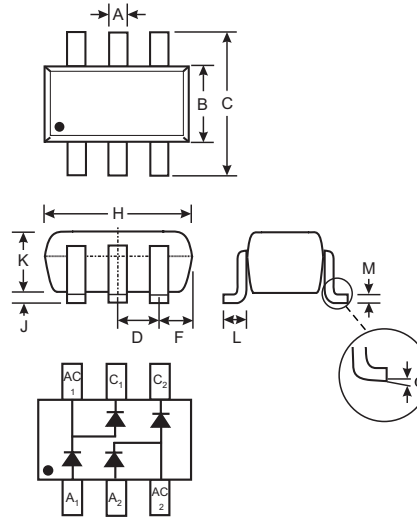


**Features**

- Two Series Diode Circuits Connect to Form Full Wave Bridge
- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating
- **Lead Free/RoHS Compliant Version (Note 3)**
- **"Green" Device (Note 4 and 5)**

**Mechanical Data**

- Case: SOT-26
- Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Copper leadframe).
- Polarity: See Diagram
- Marking: KAE (See Page 2)
- Ordering Information: See Page 2
- Weight: 0.016 grams (approximate)



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°	—
<b>All Dimensions in mm</b>			

**Maximum Ratings** @ T<sub>A</sub> = 25°C unless otherwise specified, per element

Characteristic	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	350	V
Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RWM</sub> V <sub>R</sub>	300	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	212	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	225	mA
Peak Repetitive Forward Current (Note 1)	I <sub>FRM</sub>	625	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	4.0 1.0	A
Power Dissipation (Note 1)	P <sub>d</sub>	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	357	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

**Electrical Characteristics** @ T<sub>A</sub> = 25°C unless otherwise specified, per element

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	350	—	—	V	I <sub>R</sub> = 150μA
Forward Voltage (Note 2)	V <sub>F</sub>	—	0.78 0.93 1.03	0.87 1.0 1.25	V	I <sub>F</sub> = 20mA I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Reverse Current (Note 2)	I <sub>R</sub>	—	30 35	100 100	nA μA	V <sub>R</sub> = 240V V <sub>R</sub> = 240V, T <sub>j</sub> = 150°C
Total Capacitance	C <sub>T</sub>	—	1.0	5.0	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	—	50	ns	I <sub>F</sub> = I <sub>R</sub> = 30mA, I <sub>rr</sub> = 3.0mA, R <sub>L</sub> = 100Ω

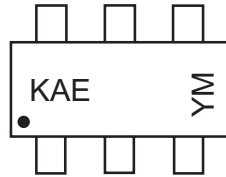
- Notes:
1. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
  2. Short duration test pulse used to minimize self-heating effect.
  3. No purposefully added lead.
  4. Diodes Inc.'s "Green" policy can be found on our website at [http://www.diodes.com/products/lead\\_free/index.php](http://www.diodes.com/products/lead_free/index.php).
  5. Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.

**Ordering Information** (Note 5 & 6)

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

- Note: 5. Product manufactured with Date Code 0609 (week 9, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0609 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.  
6. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**

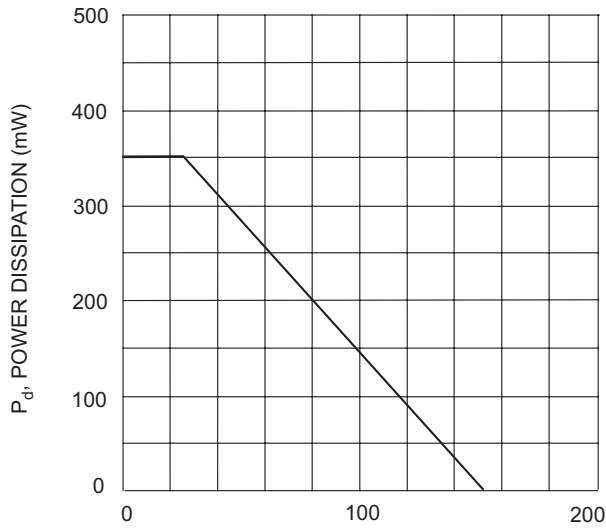


KAE = Product Type Marking Code  
YM = Date Code Marking  
Y = Year ex: N = 2002  
M = Month ex: 9 = September

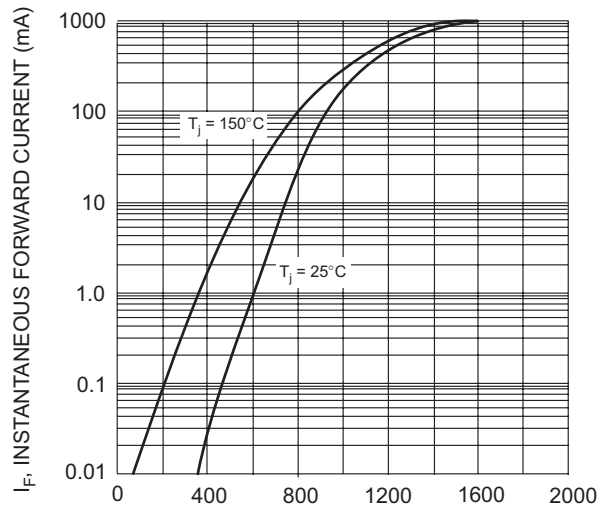
Date Code Key

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

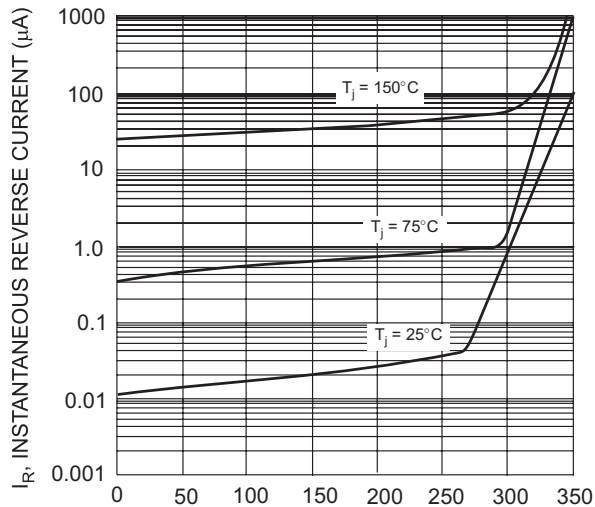
Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D



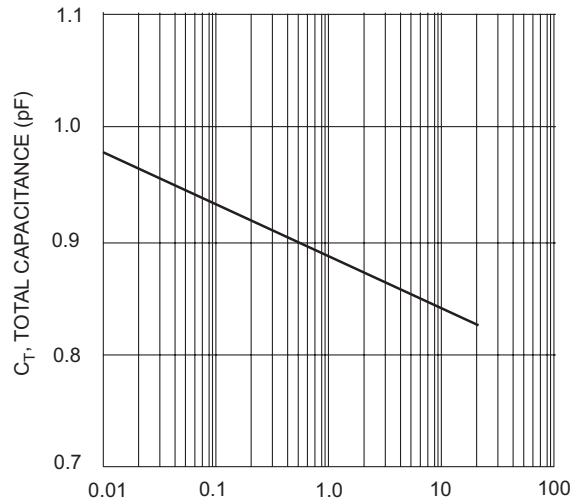
$T_A$ , AMBIENT TEMPERATURE, (°C)  
Fig. 1 Power Derating Curve, total package



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (mV)  
Fig. 2 Typical Forward Characteristics, per element



$V_R$ , INSTANTANEOUS REVERSE VOLTAGE (V)  
Fig. 3 Typical Reverse Characteristics, per element



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element

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