



#### HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE ARRAY

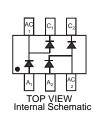
#### **Features**

- 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 (Notes 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-020D
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Copper leadframe).
- Polarity: See Diagram
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.016 grams (approximate)

TOP VIEW



## **Maximum Ratings** $@T_A = 25^{\circ}C$ unless otherwise specified

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> VR	300	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	212	V
Forward Continuous Current (Note 1)		IF	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	А

SOT-26

# **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	PD	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	°C

## Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	350	_	_	V	I <sub>R</sub> = 150μA
			0.78	0.87		$I_F = 20 \text{mA}$
Forward Voltage	VF	—	0.93	1.0	V	I <sub>F</sub> = 100mA
			1.03	1.25		I <sub>F</sub> = 200mA
Reverse Current (Note 2)	1-	_	30	100	nA	V <sub>R</sub> = 240V
Reverse Guilent (Note 2)	IR		35	100	μΑ	V <sub>R</sub> = 240V, T <sub>J</sub> = 150°C
Total Capacitance	CT	_	1.0	5.0	рF	$V_{R} = 0V, f = 1.0MHz$
Reverse Recovery Time	t <sub>rr</sub>	_	_	50	ns	$I_F = I_R = 30 \text{mA},$ $I_{rr} = 3.0 \text{mA}, R_L = 100 \Omega$

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. 1.

Short duration pulse test used to minimize self-heating effect. 2

No purposefully added lead. 3.

4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead\_free/index.php.

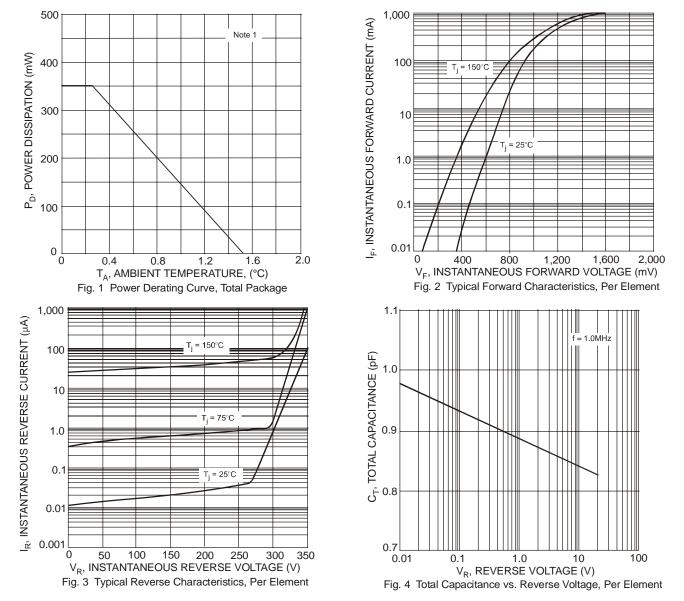
5.

Product manufactured with Date Code 0627 (week 27, 2006) and newer are built with Green Molding Compound. Product manufactured prior to Date Code 0627 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.

Notes:



# MMBD3004BRM

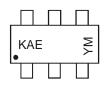


### Ordering Information (Notes 5 & 6)

Part Number	Case	Packaging
MMBD3004BRM-7	SOT-26	3000/Tape & Reel

Notes: 6. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

### **Marking Information**



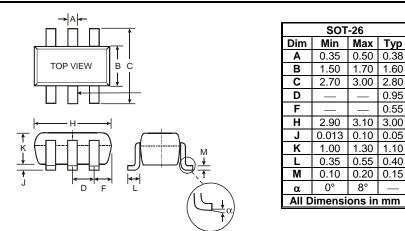
KAE = Product Type Marking Code YM = Date Code Marking Y =Year ex: T = 2006 M = Month ex: 9 = September

#### Date Code Key

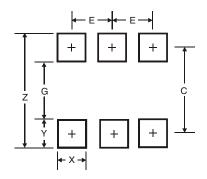
Year	200	6	2007		2008	20	09	2010		2011	2	2012
Code	Т		U		V	V	V	Х		Y		Z
Month	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D



## **Package Outline Dimensions**



# Suggested Pad Layout



Dimensions	Value (in mm)
Z	3.20
G	1.60
Х	0.55
Y	0.80
С	2.40
E	0.95

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