

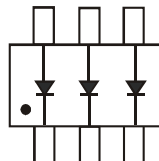
Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- **Lead Free/RoHS Compliant (Note 3)**
- **"Green" Device (Notes 4 and 5)**



TOP VIEW

SOT-26


 TOP VIEW
 Internal Schematic

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).
- Orientation: See Diagram
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 0.016 grams (approximate)

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	V _{RRM}	80	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	57	V
Forward Continuous Current (Note 1)	I _{FM}	500	mA
Average Rectified Output Current (Note 1)	I _O	250	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs	I _{FSM}	4.0	A
		2.0	

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P _D	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	357	°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
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	80	—	V	I _R = 2.5μA
Forward Voltage	V _F	0.62	0.72	V	I _F = 5.0mA
		—	0.855		I _F = 10mA
		—	1.0		I _F = 100mA
		—	1.25		I _F = 150mA
Reverse Current (Note 2)	I _R	—	100	nA	V _R = 70V
			50	μA	V _R = 75V, T _J = 150°C
			30	μA	V _R = 25V, T _J = 150°C
			25	nA	V _R = 20V
Total Capacitance	C _T	—	3.5	pF	V _R = 6V, 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 pulse test 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.
 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

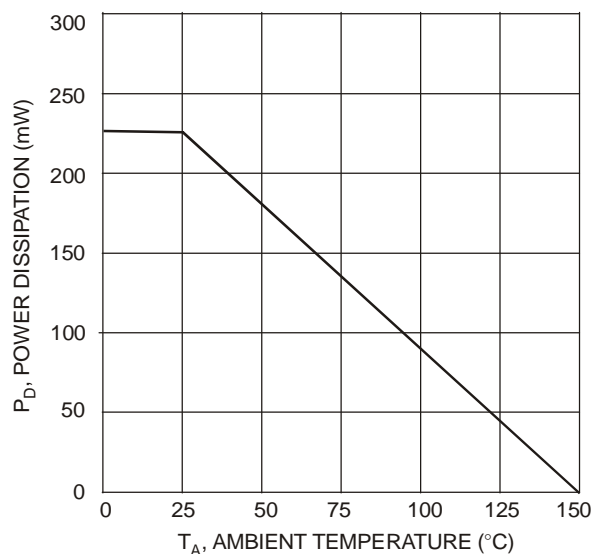


Fig. 1 Power Derating Curve, Total Package

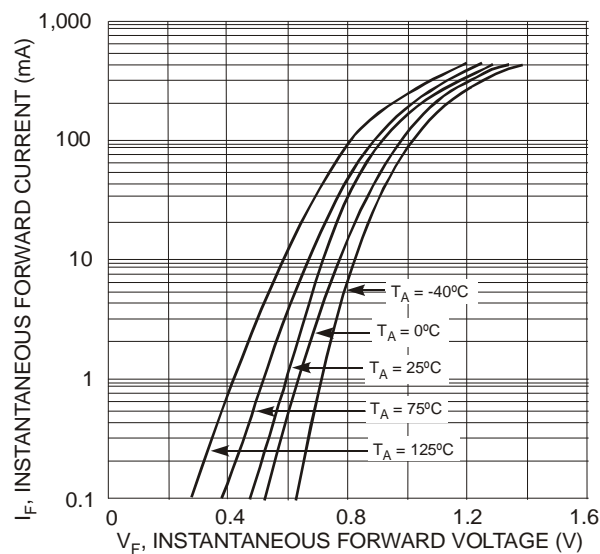


Fig. 2 Typical Forward Characteristics, Per Element

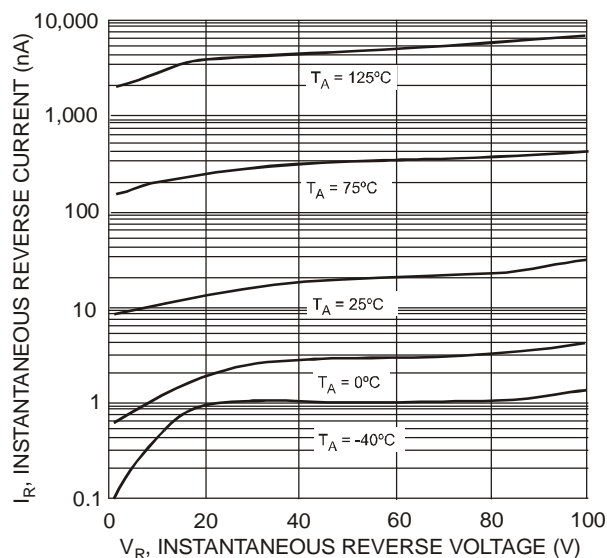


Fig. 3 Typical Reverse Characteristics, Per Element

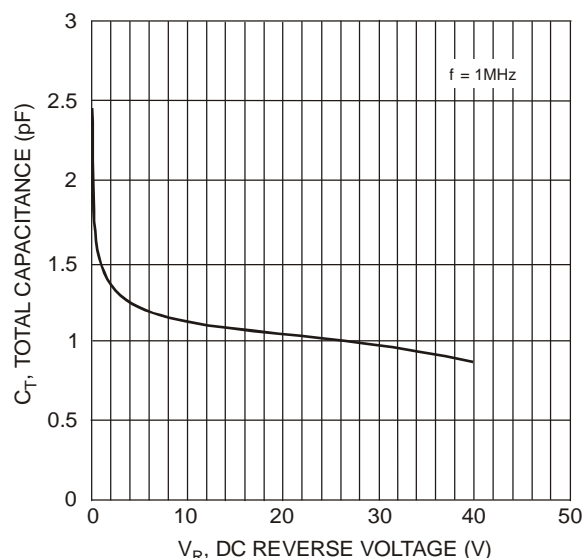


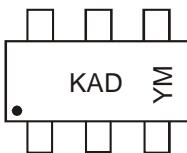
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

Ordering Information (Notes 5 & 6)

Part Number	Case	Packaging
MMBD4448HTM-7-F	SOT-26	3000/Tape & Reel

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

Marking Information



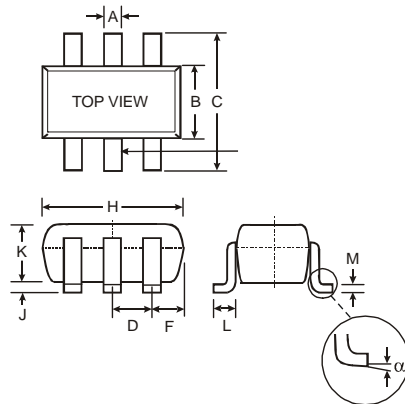
KAD = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: T = 2006
 M = Month ex: 9 = September

Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code	N	P	R	S	T	U	V	W	X	Y	Z

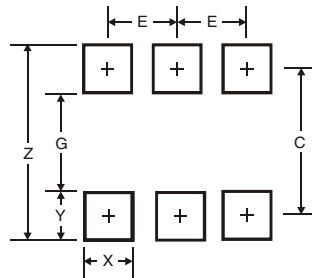
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Package Outline Dimensions



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
α	0°	8°	—
All Dimensions in mm			

Suggested Pad Layout



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

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