





Features

- Fast Switching Speed
- Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Lead Free/RoHS Compliant (Note 1)
- "Green" Device (Notes 2 and 3)

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-020
- Terminals: Matte Tin Finish annealed over Copper leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208
- Orientation: See Diagram
- Weight: 0.016 grams (approximate)





Top View



Top View Internal Schematic

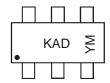
Ordering Information (Notes 3 & 4)

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

Notes:

- 1. No purposefully added lead.
- 2. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com.
- 3. 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
- 4. For packaging details, go to our website at http://www.diodes.com.

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	2013	2014	2015
Code	N	Р	R	S	Т	U	V	W	Χ	Υ	Z	Α	В	С
Month	Jan	Feb	Ma	ar	Apr	May	Jun	Jul	Aug	Se	р	Oct	Nov	Dec
Code	4	0	,	,	4	-	6	7	0	0		0	NI	ק



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 (Note 5)		I _{FM}	500	mA
Average Rectified Output Current (Note 5)		lo	250	mA
Non-Repetitive Peak Forward Surge Current	@ t = 1.0μs @ t = 1.0s	I _{FSM}	4.0 1.0	А

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_{D}	350	mW
Thermal Resistance Junction to Ambient Air (Note 5)	$R_{ hetaJA}$	357	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition			
Reverse Breakdown Voltage (Note 6)	$V_{(BR)R}$	80	1	V	$I_R = 2.5 \mu A$			
	VF	0.62	0.72	V	$I_F = 5.0 \text{mA}$			
Forward Voltage		_	0.855		$I_F = 10mA$			
Polward voltage		_	1.0		$I_F = 100 \text{mA}$			
		_	1.25		$I_F = 150 \text{mA}$			
	I _R —		100	nA	V _R = 70V			
Reverse Current (Note 6)		I _R		50	μΑ	$V_R = 75V, T_J = 150^{\circ}C$		
Reverse Guiterit (Note 0)			IR.	IR	'R	_	30	μΑ
		25	nA	$V_R = 20V$				
Total Capacitance	C _T		3.5	pF	$V_R = 6$, $f = 1.0MHz$			
Reverse Recovery Time	t _{rr}	_	4.0	ns	$V_R = 6V$, $I_F = 5mA$			

Notes:

- 5. 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.
- 6. Short duration pulse test used to minimize self-heating effect.

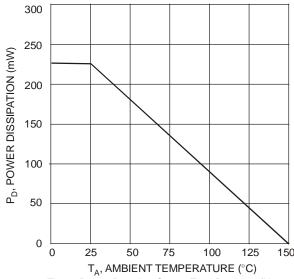
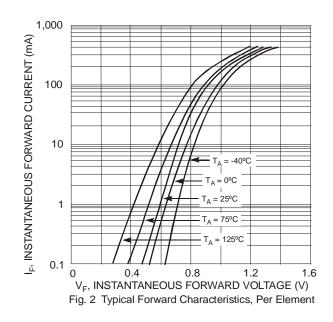
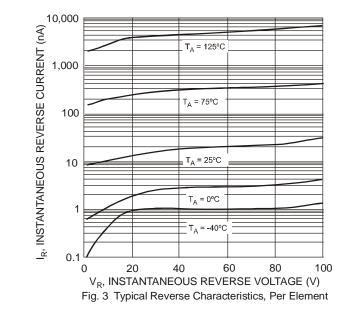


Fig. 1 Power Derating Curve, Total Package (Note 5)







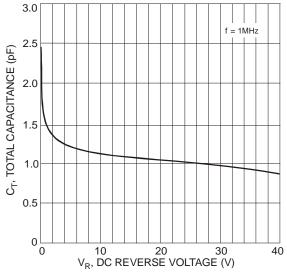
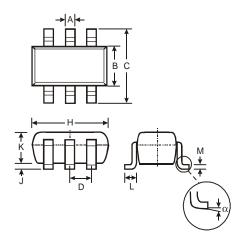


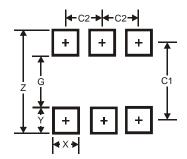
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

Package Outline Dimensions



SOT-26							
Dim	Min	Max	Тур				
Α	0.35	0.50	0.38				
В	1.50	1.70	1.60				
C	2.70	3.00	2.80				
D	_	_	0.95				
Н	2.90	3.10	3.00				
7	0.013	0.10	0.05				
K	1.00	1.30	1.10				
L	0.35	0.55	0.40				
М	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
Х	0.55
Υ	0.80
C1	2.40
C2	0.95



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