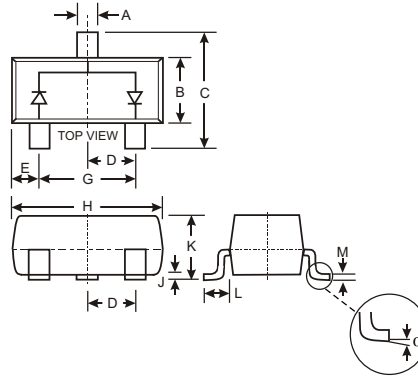


Features

Fast Switching Speed
 Surface Mount Package Ideally Suited for Automatic Insertion
 High Conductance
 High Reverse Breakdown Voltage Rating

Mechanical Data

Case: SOT-23, 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: 0.008 grams (approx.)
 Ordering Information: See below



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.85	0.80
	0	8
All Dimensions in mm		

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

Characteristic	Symbol	MMBD3004S	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	300	V
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Forward Continuous Current (Note 2)	I_F	225	mA
Peak Repetitive Forward Current (Note 2)	I_{FRM}	625	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{ s}$ @ $t = 1.0\text{ s}$	I_{FSM}	4.0 1.0	A
Power Dissipation (Note 2)	P_d	350	mW
Thermal Resistance Junction to Ambient Air (Note 2)	R_{JA}	357	C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	C

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

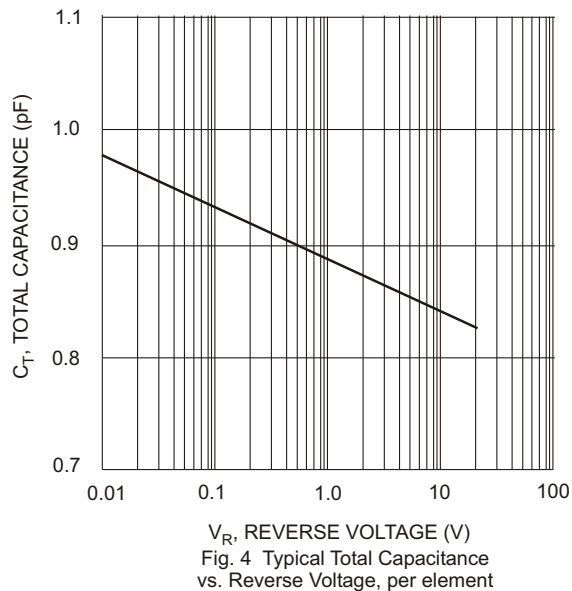
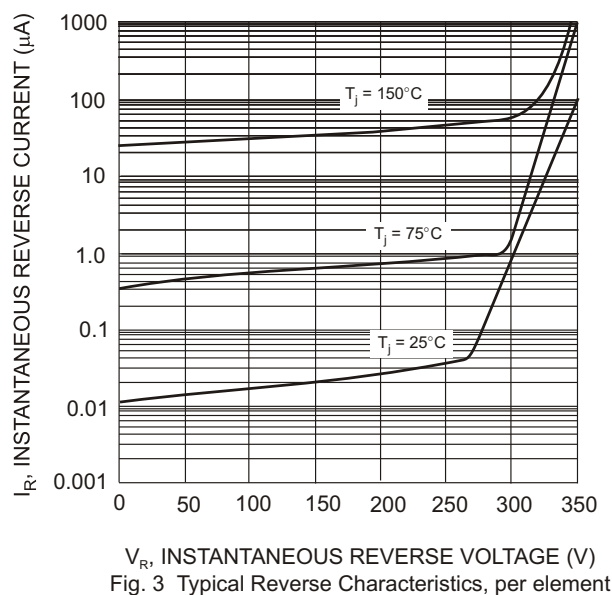
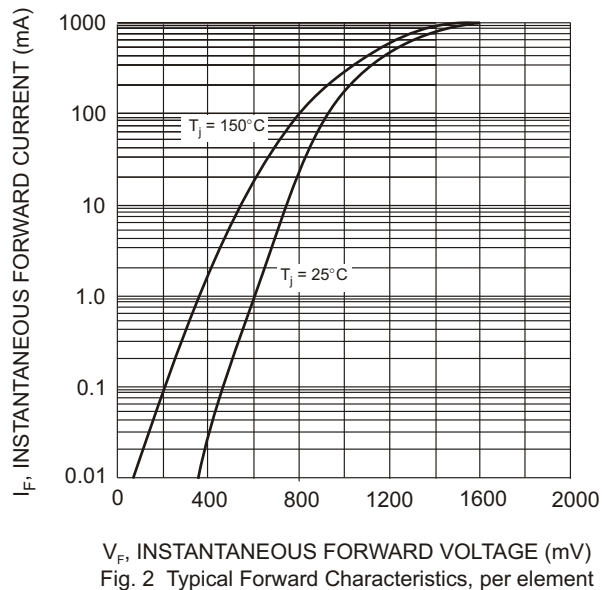
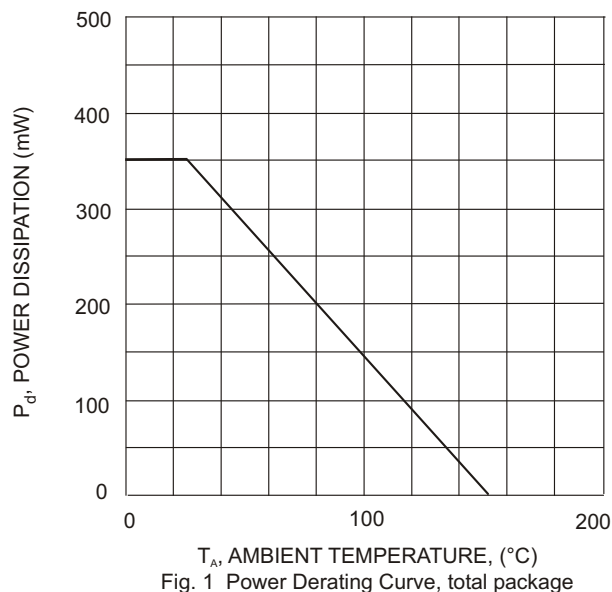
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	350			V	$I_R = 100\text{ A}$
Forward Voltage (Note 1)	V_F		0.78 0.93 1.03	0.87 1.0 1.25	V	$I_F = 20\text{mA}$ $I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Reverse Current (Note 1)	I_R		30 35	100 100	nA A	$V_R = 240\text{V}$ $V_R = 240\text{V}, T_J = 150\text{ C}$
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	$I_F = I_R = 30\text{mA}$, $I_{rr} = 3.0\text{mA}, R_L = 100$

Notes: 1. Short duration test pulse used to minimize self-heating effect.
 2. 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>.

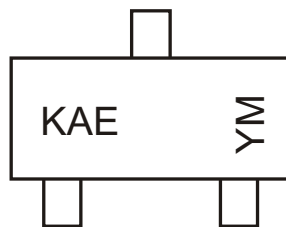
Ordering Information (Note 3)

Device	Packaging	Shipping
MMBD3004S-7	SOT-23	3000/Tape & Reel

Notes: 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	2002	2003	2004	2005	2006	2007
Code	N	P	R	S	T	U

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