

HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

MMBD3004S

- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating
- We declare that the material of product compliance with RoHS requirements.
- **Moisture Sensitivity Level 1**

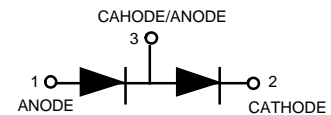
Ordering Information(Pb-free)

Device	Marking	Shipping
MMBD3004S	KAE	3000 / Tape & Reel

Pb-Free package is available

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"



Maximum Ratings @ TA=25°C unless otherwise specified

Characteristic	Symbol	MMBD3004S	Unit
Repetitive Peak Reverse Voltage	VRRM	350	V
Working Peak Reverse Voltage	VRWM	300	V
DC Blocking Voltage	VR		
RMS Reverse Voltage	VR(RMS)	212	V
Forward Continuous Current(Note 2)	IF	225	mA
Peak Repetitive Forward Current(Note 2)	IFRM	625	mA
Non-Repetitive Peak Forward Surge Current @t=1.0µs @t=1.0s	IFSM	4.0	A
		1.0	
Power Dissipation(Note 2)	Pd	350	mW
Thermal Resistance Junction to Ambient Air(Note 2)	RθJA	357	°C/W
Operating and Storage Temperature Range	Tj, TSTG	-55 to +150	°C

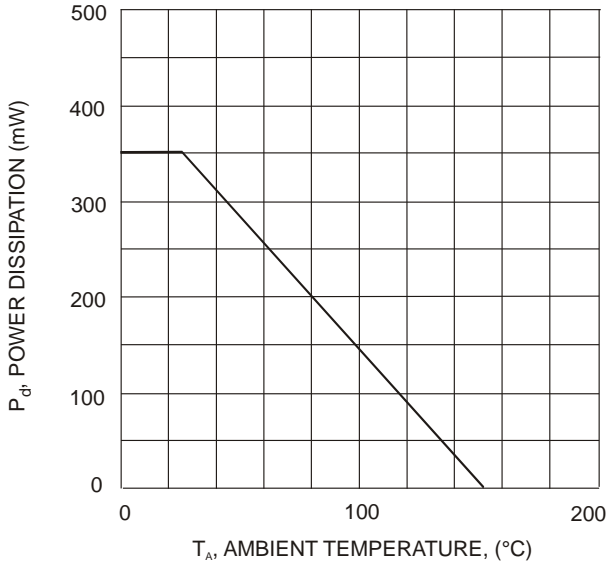
Electrical Characteristics @ TA=25°C unless otherwise specified, per element

Characteristic	Symbol	Min	Typ	MAX	Unit	Test Condition
Reverse Breakdown Voltage(Note 1)	V(BR)R	350			V	IR=100µA
Forward Voltage(Note 1)	VF		0.78	0.87	V	IF=20mA
			0.93	1.0		IF=100mA
			1.03	1.25		IF=200mA
Reverse Current(Note 1)	IR		30	100	nA	VR=240V
			35	100	µA	VR=240V, Tj=150°C
Total Capacitance	CT		1.0	5.0	Pf	VR=0V, f=1.0MHZ
Reverse Recovery Time	Trr			50	ns	IF=IR=30mA Irr=3.0mA, RL=100Ω

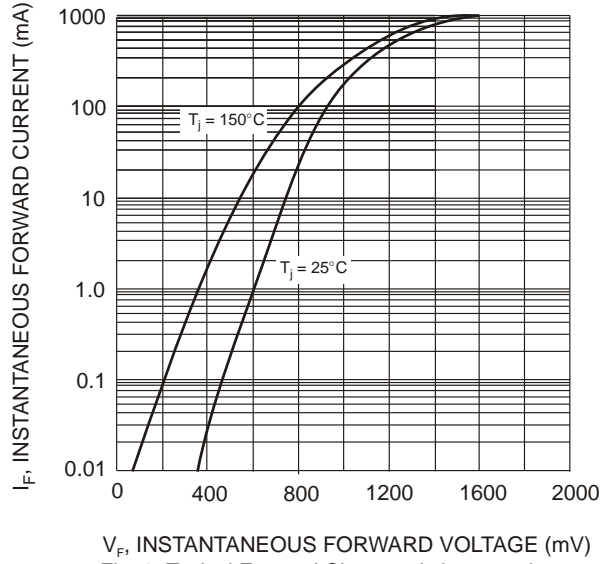
- Notes: 1. Short duration test pulse used to minimize self-heating effect.
2. Part mounted on FR-4 board with recommended pad layout.

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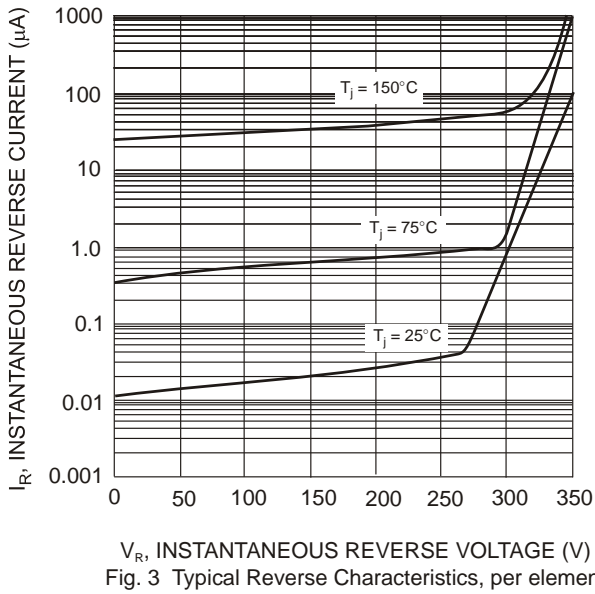
MMBD3004S



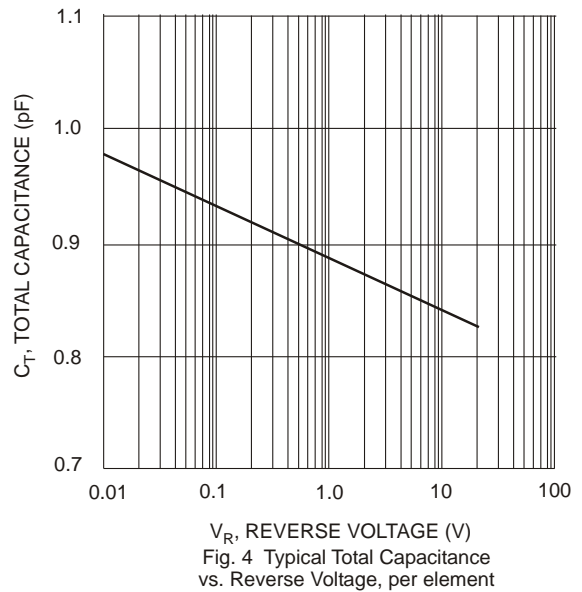
T_A, AMBIENT TEMPERATURE, (°C)
Fig. 1 Power Derating Curve, total package



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

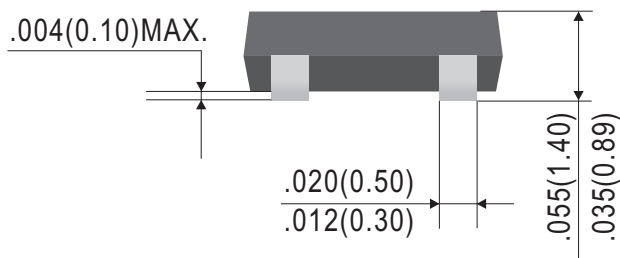
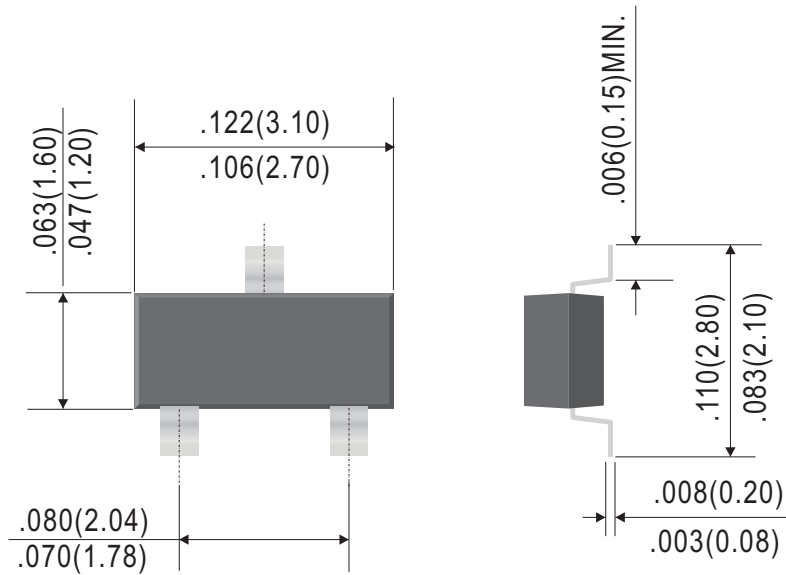


V_R, INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics, per element



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

SOT-23



Dimensions in inches and (millimeters)



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MMBD3004S

Ordering Information:

Device PN	Packing
MMBD3004S-T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape&Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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