

HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

MMBD3004A

FEATURE

- 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**

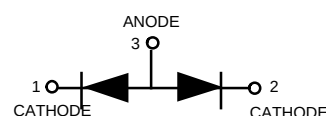
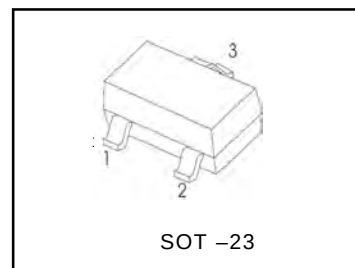
Ordering Information(Pb-free)

Device	Marking	Shipping
MMBD3004A	KAD	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	Value	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	IFSM	4.0	A
@t=1.0s		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 0.93 1.03	0.87 1.0 1.25	V	IF=20mA IF=100mA IF=200mA
Reverse Current(Note 1)	IR		30 35	100 100	nA μA	VR=240V 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.

HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

MMBD3004A

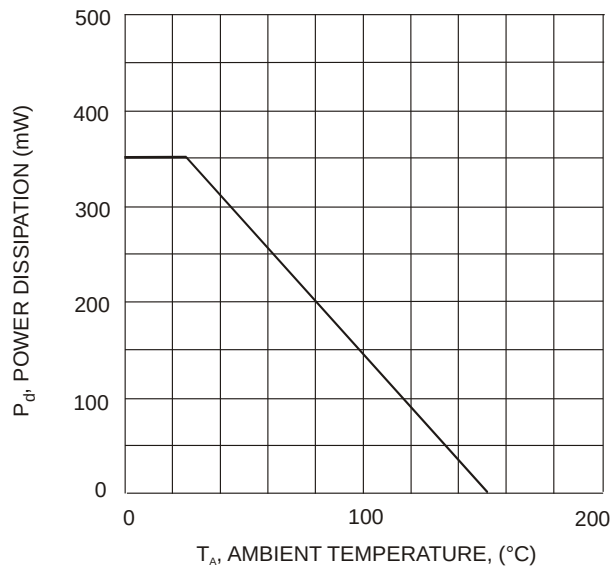


Fig. 1 Power Derating Curve, total package

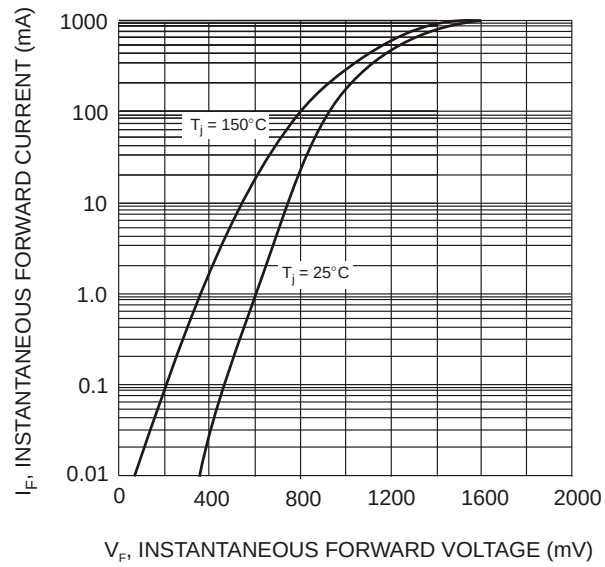


Fig. 2 Typical Forward Characteristics, per element

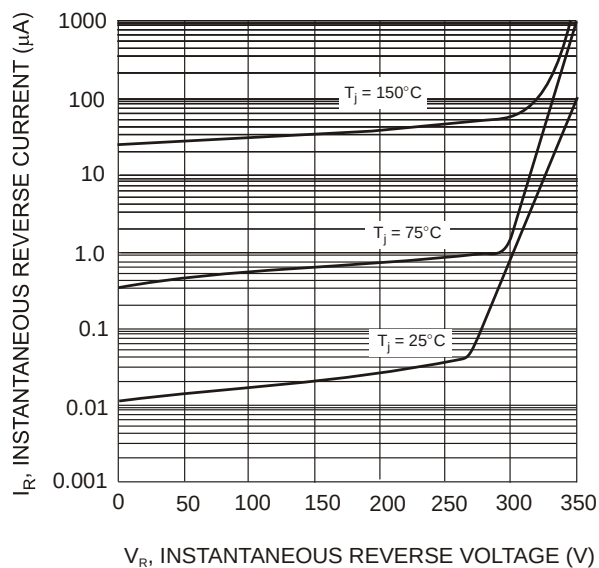


Fig. 3 Typical Reverse Characteristics, per element

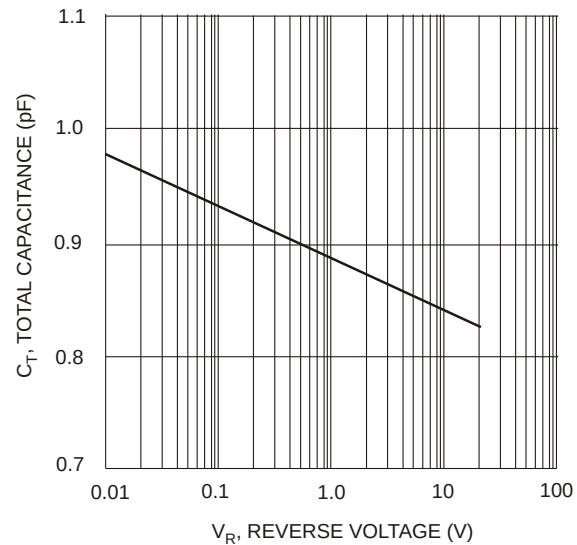
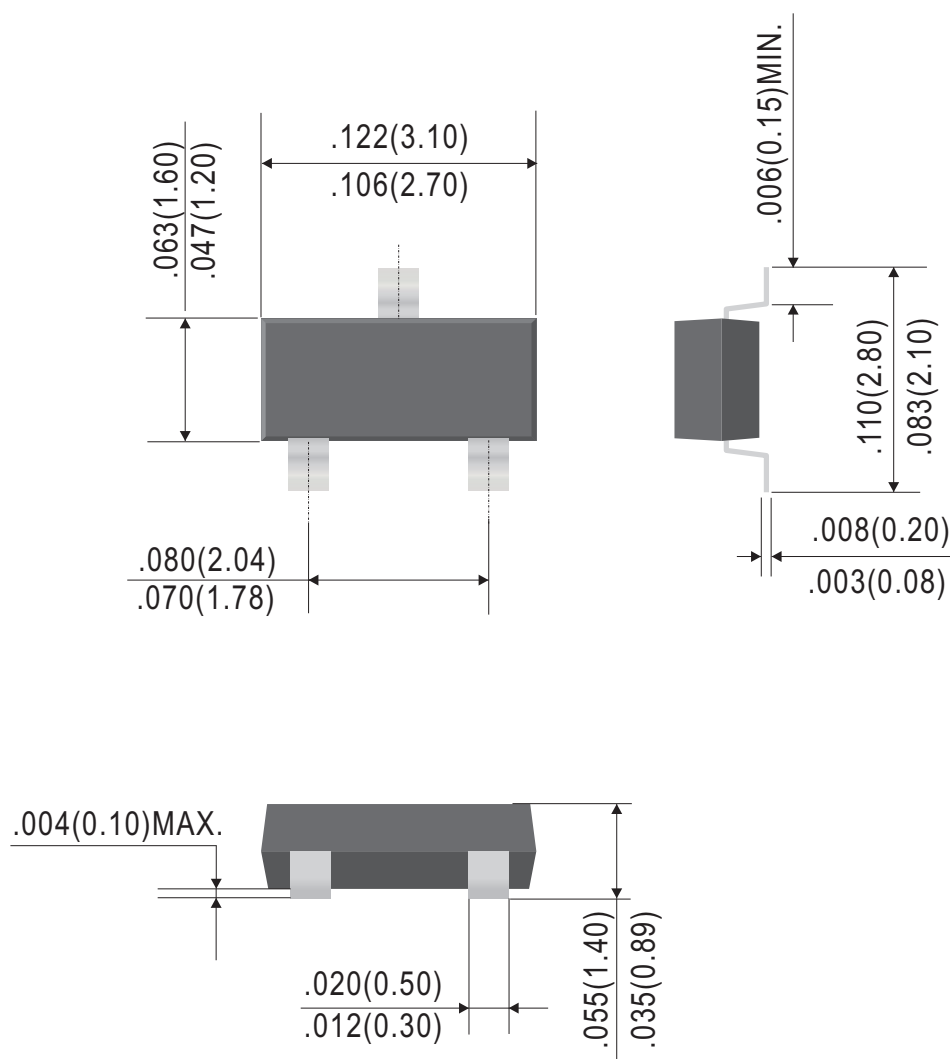


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element

SOT-23



Dimensions in inches and (millimeters)

**HIGH VOLTAGE SURFACE MOUNT
SWITCHING DIODE****MMBD3004A****Ordering Information:**

Device PN	Packing
MMBD3004A-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"

*****Disclaimer*****

WILLAS reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. WILLAS or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on WILLAS data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. WILLAS does not assume any liability arising out of the application or use of any product or circuit.

WILLAS products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of WILLAS. Customers using or selling WILLAS components for use in such applications do so at their own risk and shall agree to fully indemnify WILLAS Inc and its subsidiaries harmless against all claims, damages and expenditures.