

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**

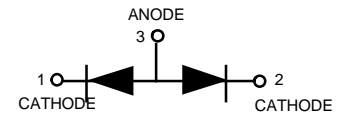
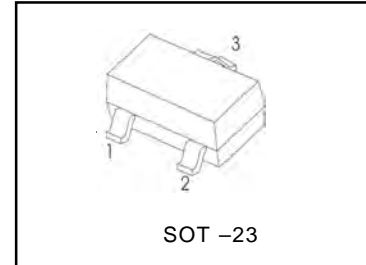
Ordering Information(Pb-free)

Device	Marking	Shipping
OMBD3004A	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 @ T_A=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)	I _F	225	mA
Peak Repetitive Forward Current(Note 2)	I _{FRM}	625	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	@t=1.0μs	4.0
		@t=1.0s	1.0
Power Dissipation(Note 2)	P _d	350	mW
Thermal Resistance Junction to Ambient Air(Note 2)	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, per element

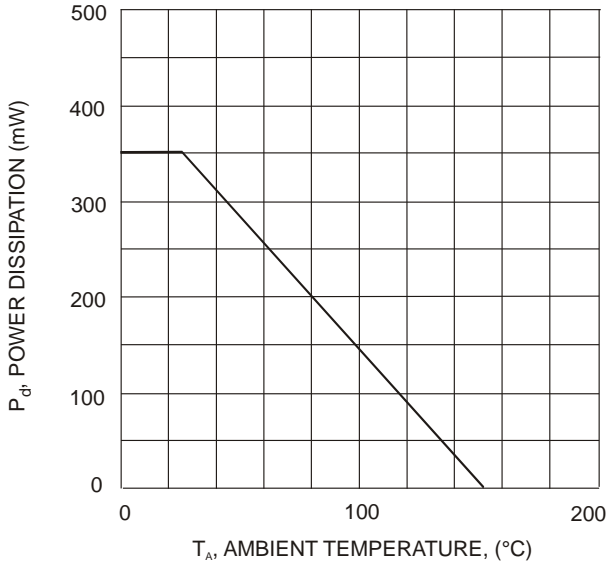
Characteristic	Symbol	Min	Typ	MAX	Unit	Test Condition
Reverse Breakdown Voltage(Note 1)	V _{(BR)R}	350			V	I _R =100μA
Forward Voltage(Note 1)	V _F		0.78	0.87	V	I _F =20mA
			0.93	1.0		I _F =100mA
			1.03	1.25		I _F =200mA
Reverse Current(Note 1)	I _R		30	100	nA	V _R =240V
			35	100	μA	V _R =240V, T _j =150°C
Total Capacitance	C _T		1.0	5.0	Pf	V _R =0V, f=1.0MHZ
Reverse Recovery Time	T _{rr}			50	ns	I _F =I _R =30mA I _{rr} =3.0mA, R _L =100Ω

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

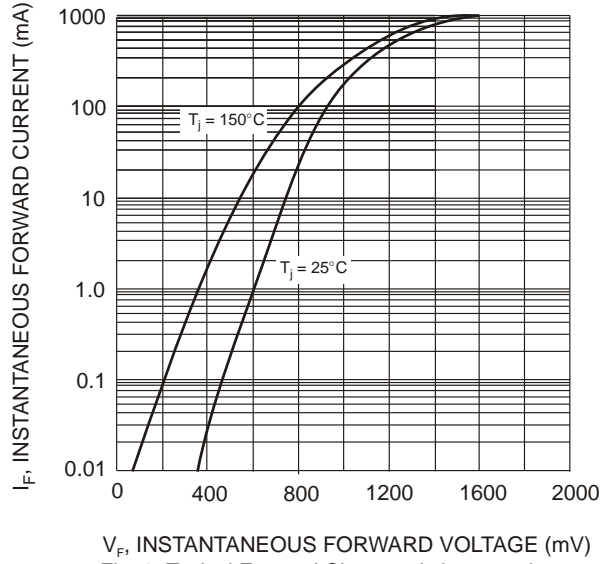
2. Part mounted on FR-4 board with recommended pad layout.

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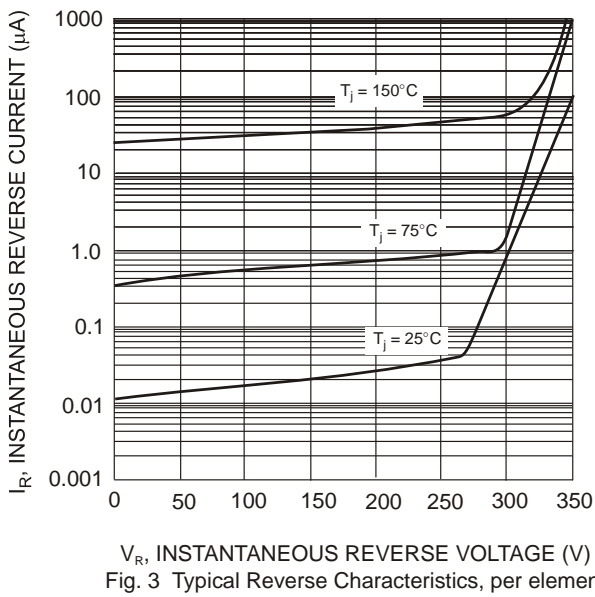
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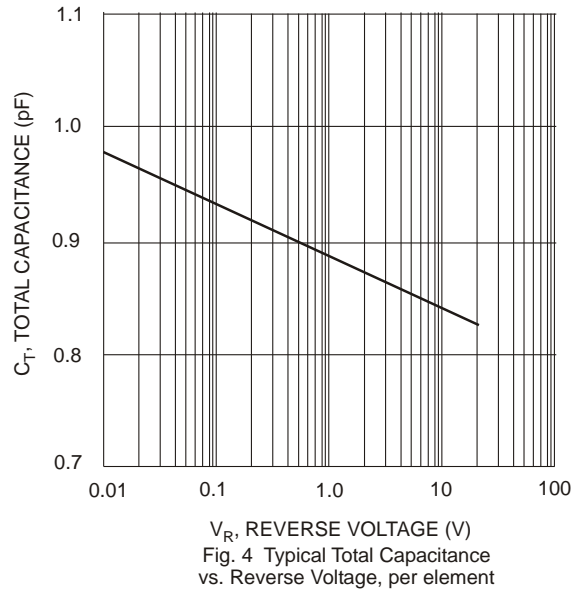
T_A , AMBIENT TEMPERATURE, (°C)
Fig. 1 Power Derating Curve, total package



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

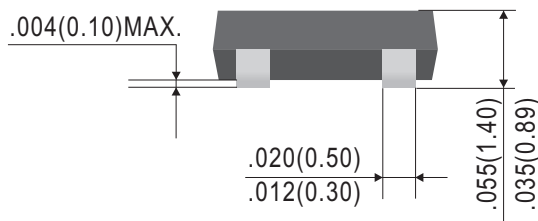
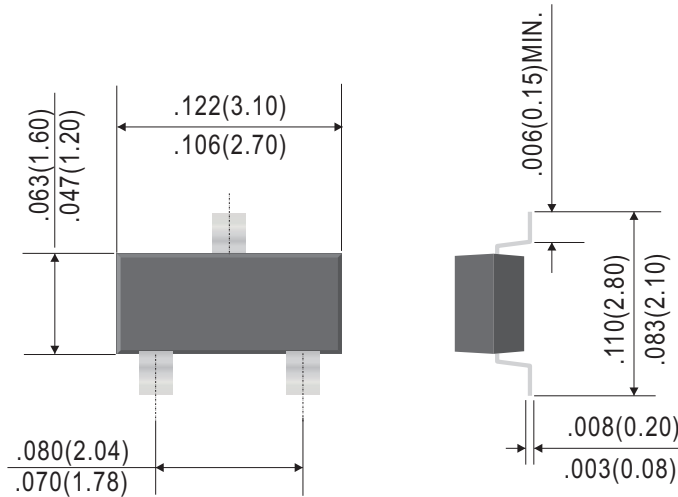


V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics, per element



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

SOT-23



Dimensions in inches and (millimeters)

