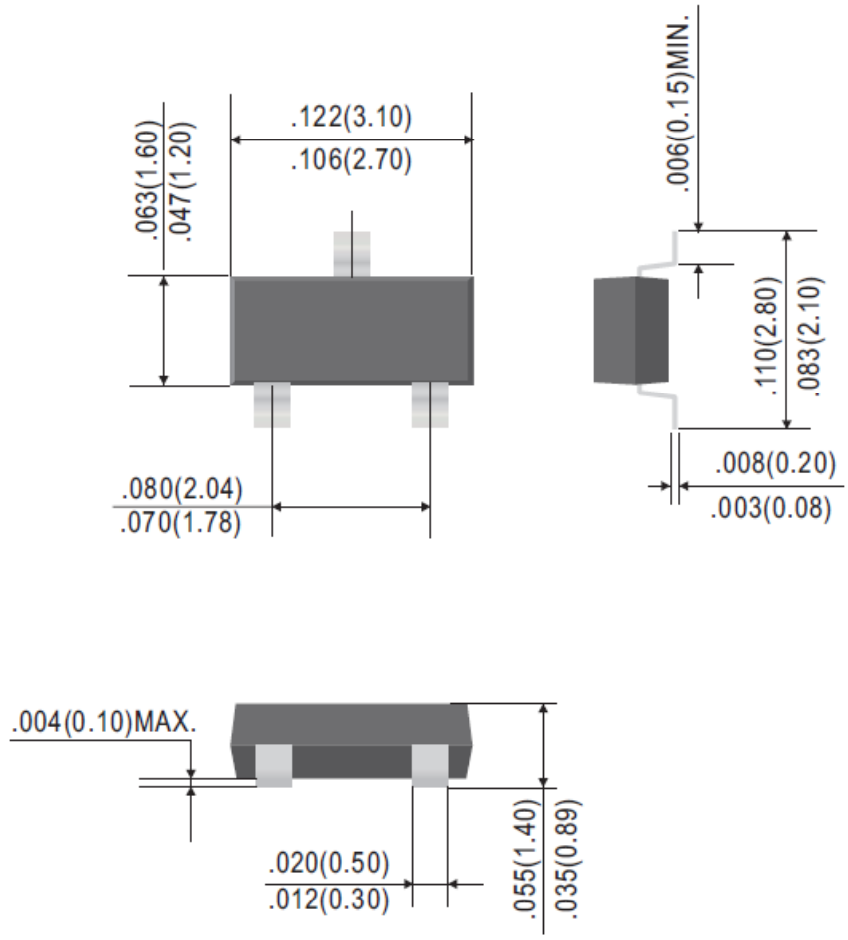
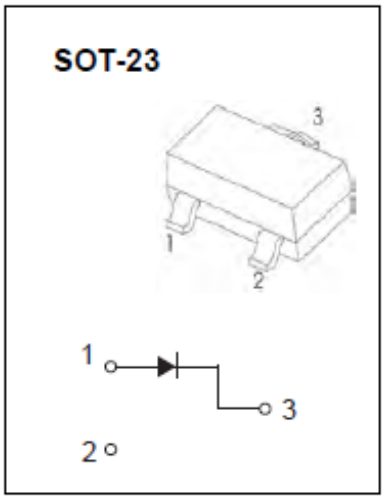
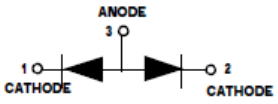
MMBD3004A

High Voltage Surface Mount Switching Diode



Dimensions in inches and (millimeters)





FEATURES

·Fast Switching Speed
·High Conductance
·High Reverse Breakdown Voltage Rating
·We declare that the material of product compliance with RoHS requirements.
·Pb-Free package is available
·RoHS product for packing code suffix "G"
·Halogen free product for packing code suffix "H"
·Moisture Sensitivity Level 1

MARKING: KAD

MMBD3004A

High Voltage Surface Mount Switching Diode

Maximum Ratings (T_A=25°C unless otherwise specified)			
Characteristic	**Symbol**	**Value**	**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=1.0μs @t=1.0s	I_{FSM}	4 1	A
Power Dissipation (Note 2)	P_D	350	mW
Thermal Resistance from Junction to Ambient (Note 2)	$R_{\theta JA}$	357	°C/W
Operating/ Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)						
Characteristic	**Symbol**	**Test Condition**	**Min.**	**Typ.**	**Max.**	**Unit**
Reverse Breakdown Voltage (Note 1)	$V_{(BR)}$	I_R=100μA	350	—	—	V
Reverse Current (Note 1)	I_R	V_R=240V	—	30	100	nA
		V_R=240V, T_J=150°C	—	35	100	μA
Forward Voltage (Note 1)	V_F	I_F=20mA	—	0.78	0.87	V
		I_F=100mA	—	0.93	1	
		I_F=200mA	—	1.03	1.25	
Total Capacitance	C_T	V_R=0V, f=1.0MHZ	—	1	5	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=30mA I_{rr}=3.0mA, R_L=100Ω	—	—	50	ns

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

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

MMBD3004A

High Voltage Surface Mount Switching Diode

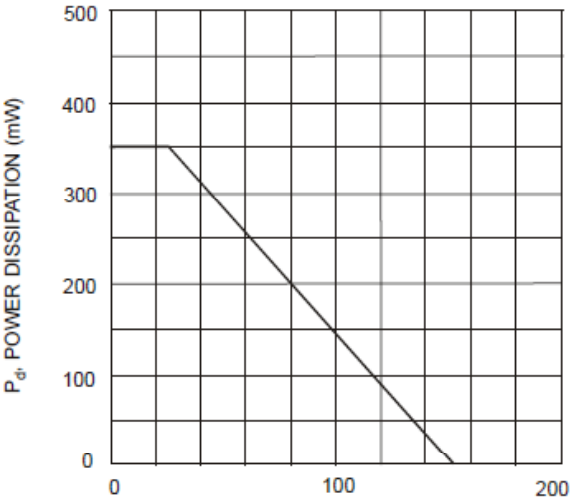


Fig. 1 Power Derating Curve, total package

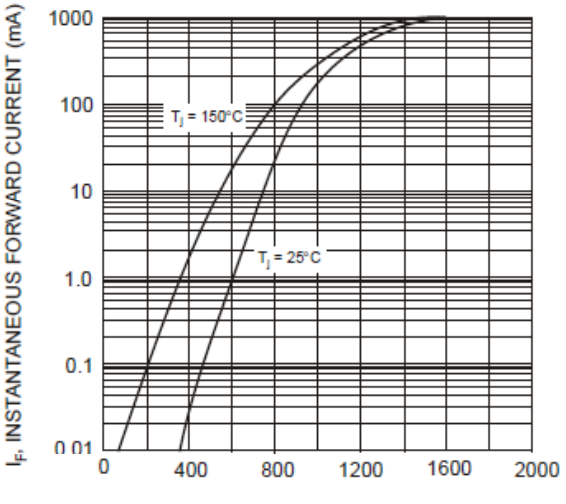


Fig. 2 Typical Forward Characteristics, per element

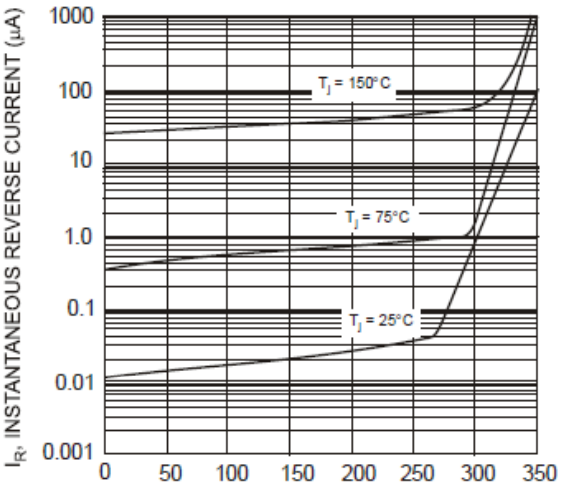


Fig. 3 Typical Reverse Characteristics, per element

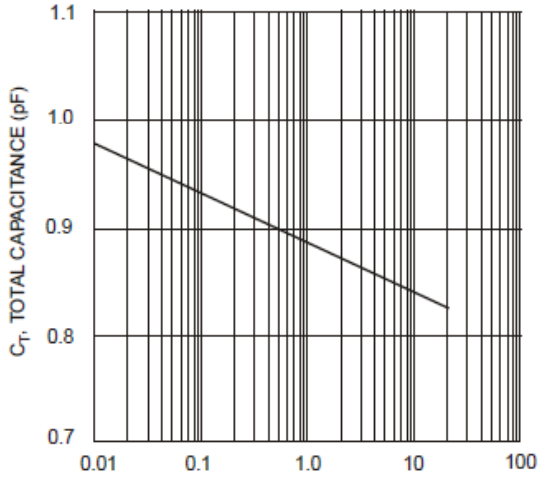


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element