



# MMBD3004S

## Features

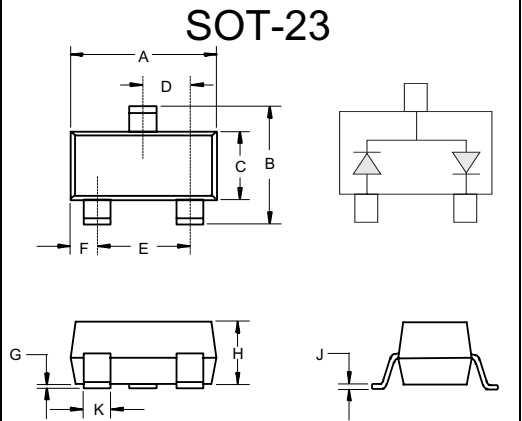
- Halogen free available upon request by adding suffix "-HF"
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- High Reverse Breakdown Voltage Rating
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 310°C/W Junction to Ambient

## 410 mW High Voltage Switching Diode 240 Volts

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	$V_R$	240	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	350	V
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Continuous Forward Current	$I_F$	225	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Forward Surge Current $t_p = 1\mu s$	$I_{FSM}$	4	A
Forward Surge Current $t_p = 1s$	$I_{FSM}$	1	A
Total Power Dissipation @ $T_A = 25^\circ C$	$P_D$	410	mW

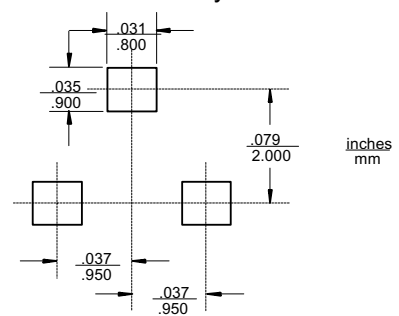


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Ratings	Symbol	Value	Test Condition
Maximum Forward Voltage	$V_F$	0.87 V 1.0 V 1.25 V	$I_F = 20mA$ $I_F = 100mA$ $I_F = 200mA$
Maximum Reverse Current	$I_R$	100 nA 100 $\mu A$	$V_R = 240V$ $V_R = 240V, T_J = 150^\circ C$
Minimum Reverse Breakdown Voltage	$V_{(BR)}$	350 V	$I_R = 150\mu A$
Maximum Junction Capacitance	$C_T$	5.0 pF	$V_R = 0, f = 1MHz$
Maximum Reverse Recovery Time	$t_{rr}$	50 ns	$I_F = I_R = 30mA, Rec. to I_{RR} = 0.1 I_R, R_L = 100\Omega$

### Suggested Solder Pad Layout



## ELECTRICAL CHARACTERISTICS CURVES

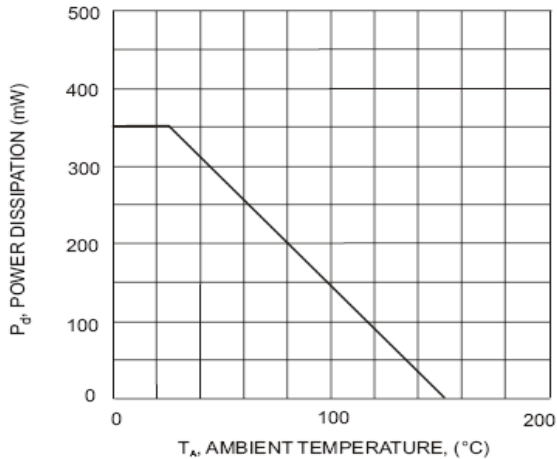


Fig. 1 Power Derating Curve, total package

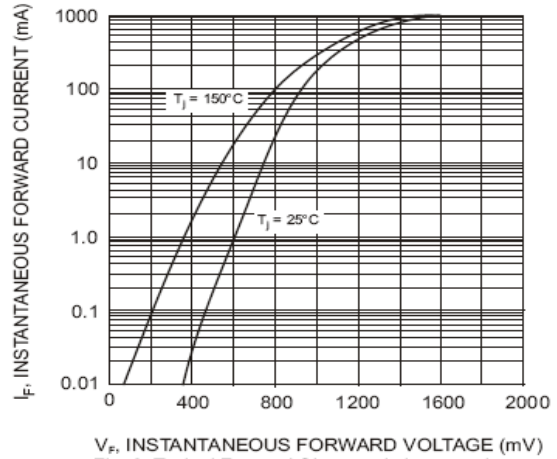


Fig. 2 Typical Forward Characteristics, per element

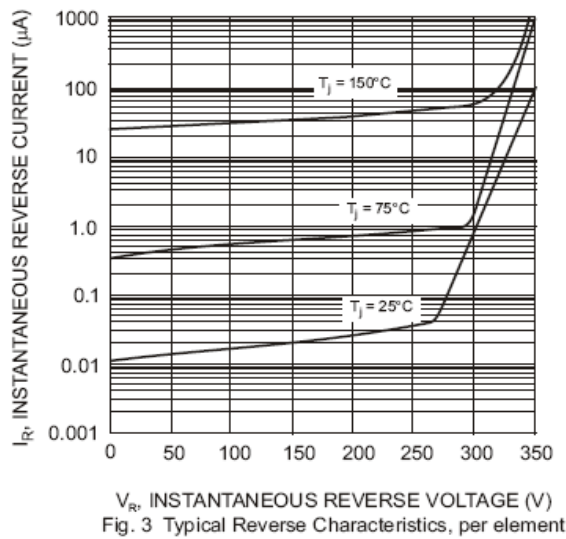


Fig. 3 Typical Reverse Characteristics, per element

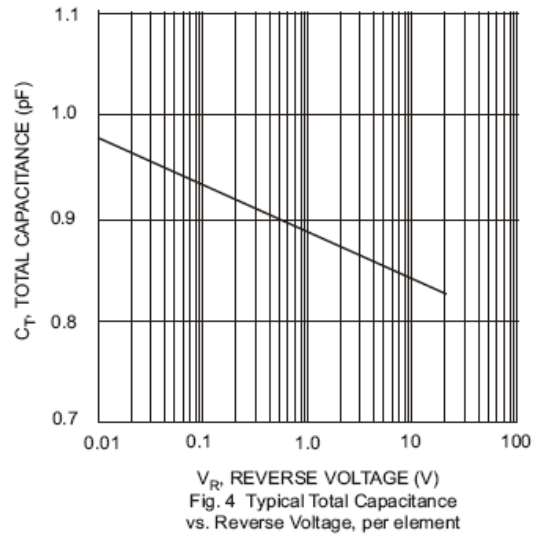


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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