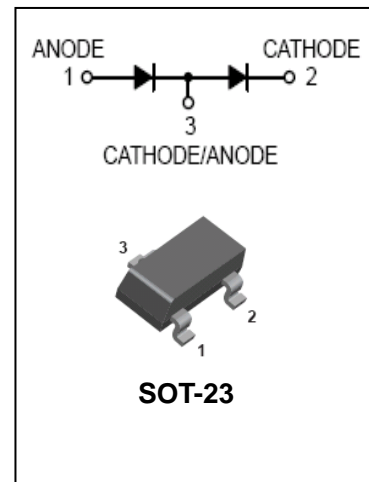


## High Voltage Dual switching diode

## MMBD5004S

### FEATURES

- Fast Switching Speed: 50ns
- Surface Mount Package Ideally Suited for Automated Insertion
- High Reverse Breakdown Voltage Rating: 400V



### APPLICATIONS

- Ultra high speed switching.

### ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD5004S	10D	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Recurrent Peak reverse voltage	$V_{RRM}$	400	V
DC Blocking voltage	$V_{DC}$	350	V
RMS Reverse voltage	$V_{RMS}$	247	V
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	5	A
		3	
Forward Continuous Current	$I_F$	300	mA
Peak Repetitive Forward Current	$I_{FRM}$	625	mA
Power Dissipation	$P_d$	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	357	°C/W
Operating and storage temperature range	$T_j, T_{STG}$	-55 to +150	°C



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High Voltage Dual switching diode

**MMBD5004S**

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{R(BR)}$	400			V	$I_R=150\mu A$
Maximum Forward voltage	$V_F$			0.9 1.05 1.275	V	$I_F=20mA$ $I_F=100mA$ $I_F=200mA$
Reverse current	$I_R$			150	nA	$V_R=240V$
				5	uA	$V_R=360V$
Total Capacitance	$C_T$		0.65	2.0	pF	$V_R=0V, f=1MHz$
Reverse Recovery Time	$t_{rr}$			50	ns	$I_F=I_R=30mA, I_{rr}=3.0mA,$ $R_L=100\Omega$



High Voltage Dual switching diode

**MMBD5004S**

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

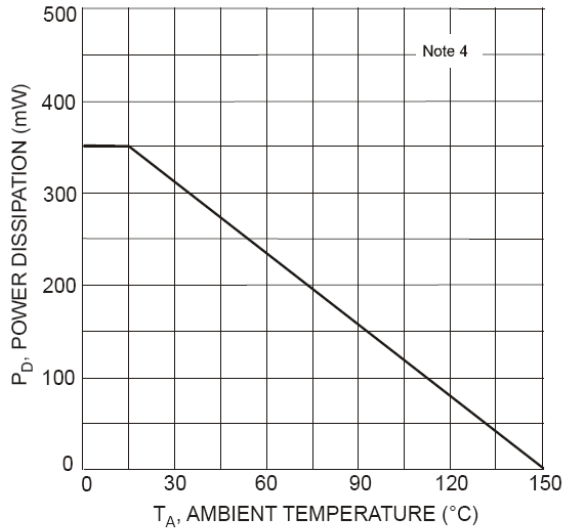


Fig. 1 Power Derating Curve, Total Package

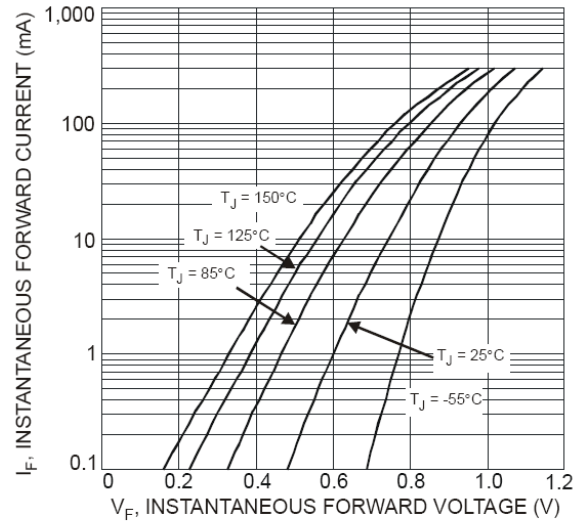


Fig. 2 Typical Forward Characteristics, Per Element

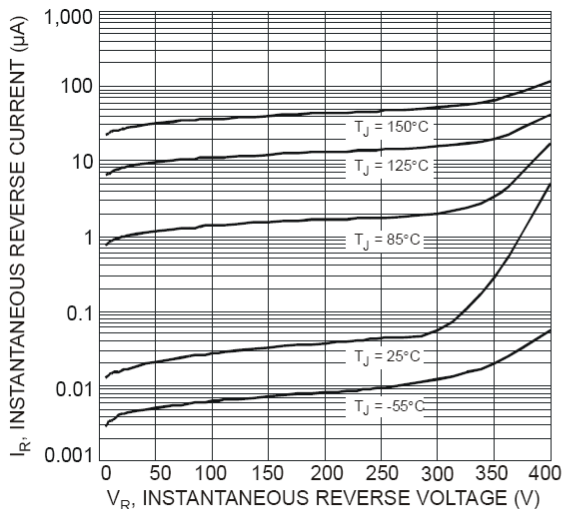


Fig. 3 Typical Reverse Characteristics, Per Element

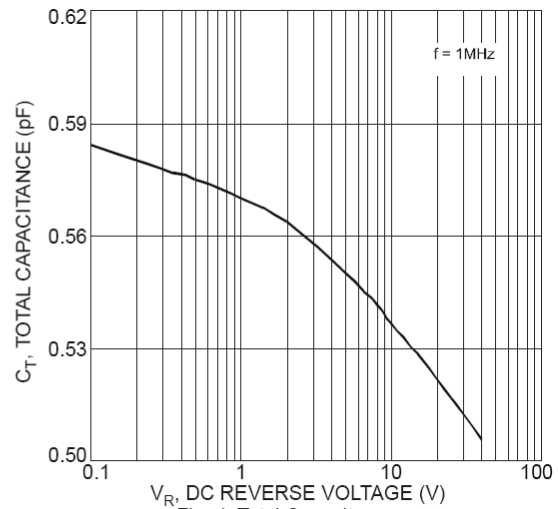


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element



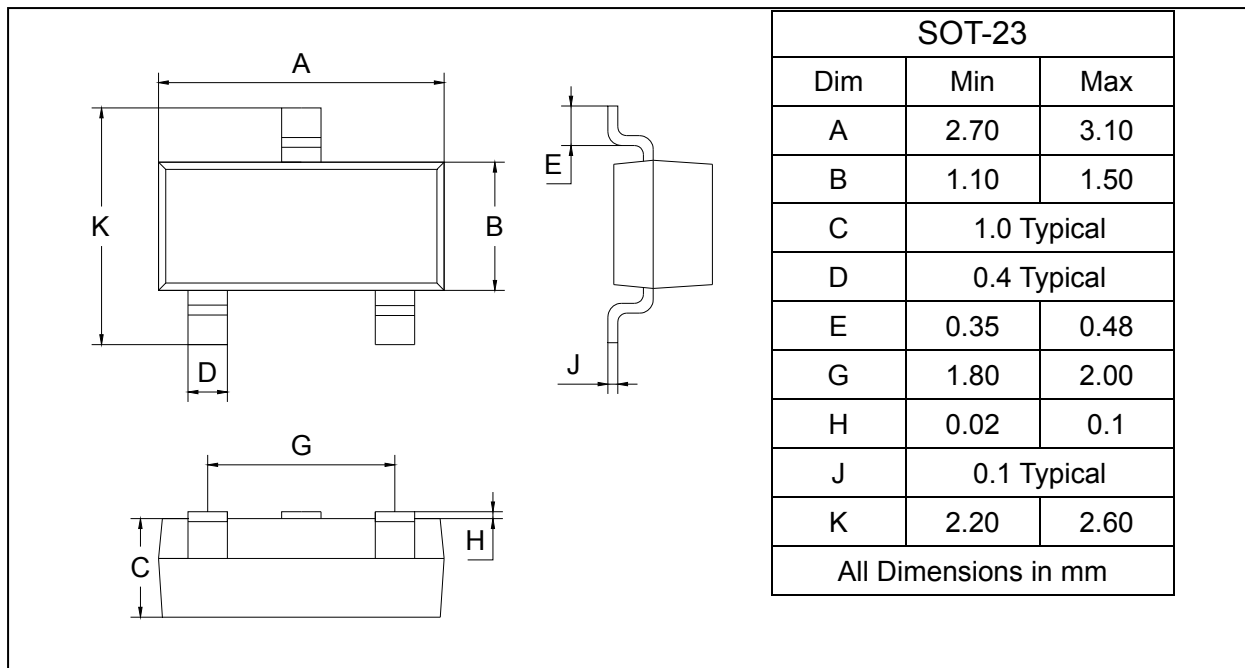
## High Voltage Dual switching diode

## MMBD5004S

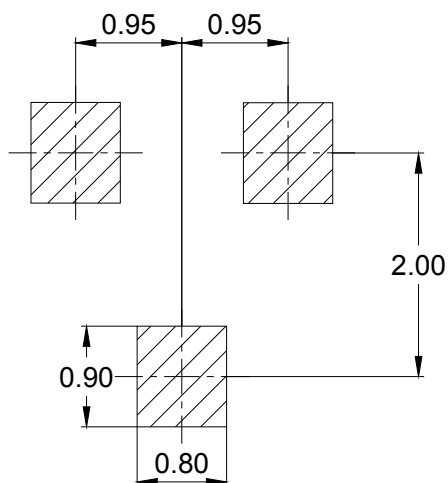
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
MMBD5004S	SOT-23	3000/Tape&Reel