

MMBD2004S

SWITCHING DIODE

VOLTAGE	300 Volt	POWER	250 mW
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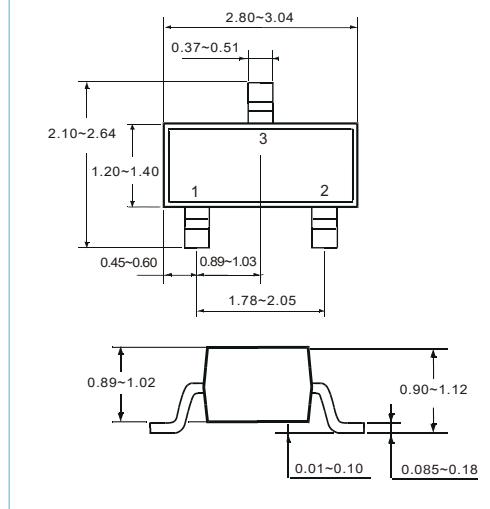
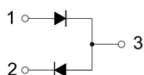
SOT-23 Unit:mm

FEATURES

- Fast Switching Speed
- Low Reverse Current
- Lead free in compliance with EU RoHS
- Marking code: B6D

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Units
Peak reverse voltage	V_{RM}	300	V
Reverse voltage	V_R	240	V
Peak Repetitive Forward Current	I_{FRM}	625	mA
Average Rectified Output Current	I_O	225	mA
Non-repetitive Peak Forward surge current @ $t=1s$	I_{FSM}	1.0	A
Power dissipation	P_D	250	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	($I_R = 100 \mu\text{A}$)	240			V
Reverse current	I_R	($V_R = 240 \text{ V}$)			0.1	μA
Forward Voltage	V_F	($I_F = 100 \text{ mA}$)			1.00	V
Total Capacitance	C_T	($V_R = 0 \text{ V}$, $f = 1.0 \text{ MHz}$)			5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=30\text{mA}$, $I_R=30\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100 \Omega$			50	ns

MMBD2004S

Typical Characteristics

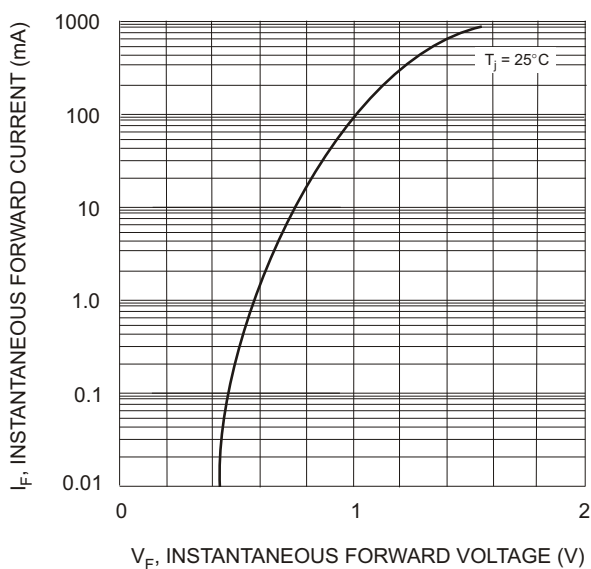


Fig. 1 Forward Characteristics

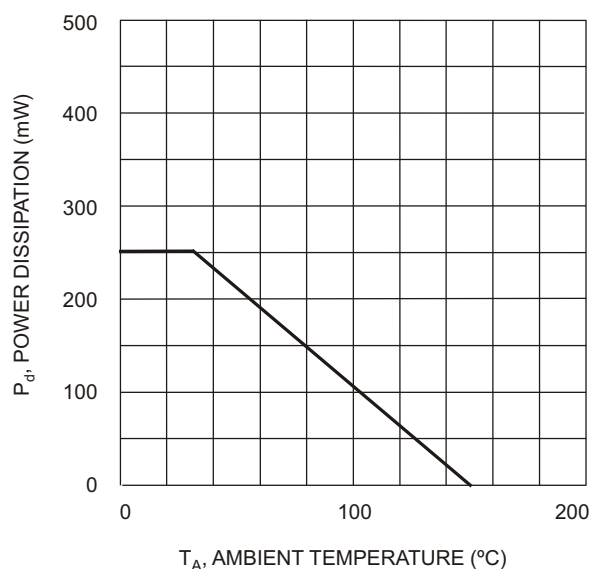


Fig. 2 Power Dissipation Derating

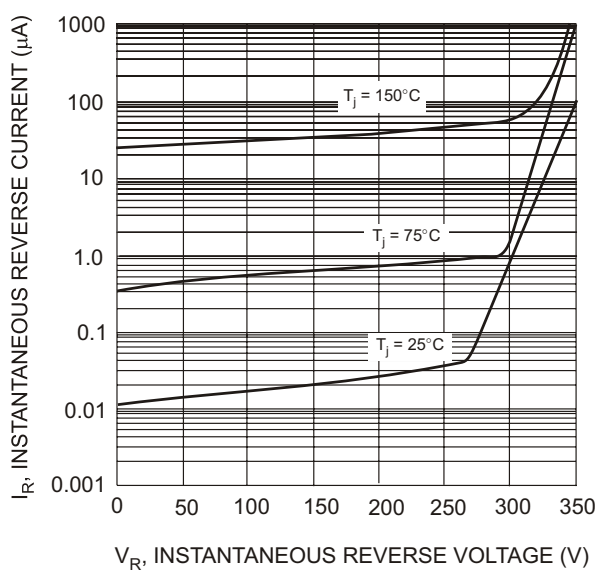


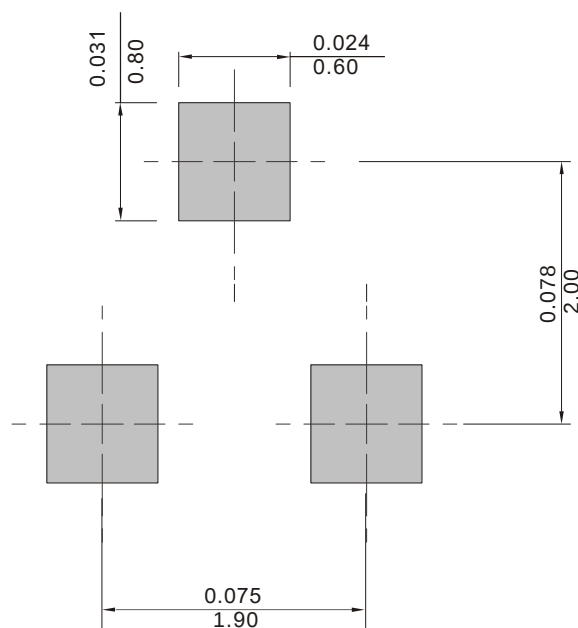
Fig. 3 Typical Reverse Characteristics, per element

MMBD2004S

MOUNTING PAD LAYOUT

SOT-23

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
MMBD2004S	SOT-23	7 Inch	3000