

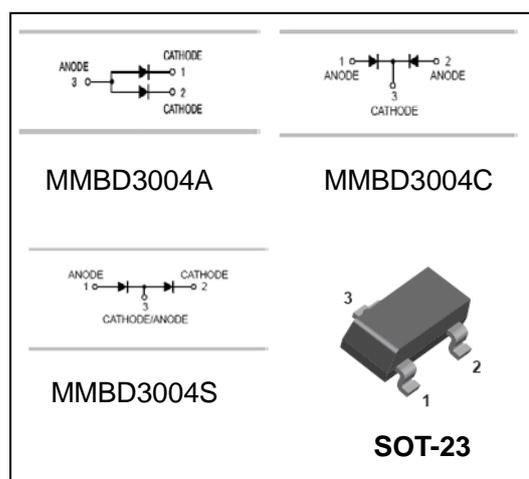
## FEATURES

- Fast switching speed
- High conductance
- High reverse breakdown voltage rating
- Surface mount package ideally suited for automatic insertion

**HF**

## APPLICATIONS

- Small signal switching



## ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD3004A	KAD	SOT-23
MMBD3004C	KAC	SOT-23
MMBD3004S	KAE	SOT-23

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

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	350	V
Working peak reverse voltage	$V_{RWM}$	300	V
Continuous Reverse voltage	$V_R$		V
RMS reverse voltage	$V_{R(RMS)}$	212	V
Forward continuous current	$I_F$	225	mA
Peak repetitive forward current	$I_{FRM}$	625	mA
Non-Repetitive peak forward surge current	$I_{FSM}$	4	A
	@t=1.0μs		
	@t=1.0s	1	
Power dissipation	$P_D$	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	357	°C/W
Operating and storage temperature range	$T_j, T_{STG}$	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	Typ	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=150\mu A$	350			V
Reverse voltage leakage current	$I_R$	$V_R=240V$ $V_R=240V T_j=150^\circ C$		30 35	100 100	nA $\mu A$
Forward voltage	$V_F$	$I_F=20mA$ $I_F=100mA$ $I_F=200mA$		0.78 0.93 1.03	0.87 1.0 1.25	V
Total capacitance	$C_T$	$V_R=0V, f=1MHz$		1.0	5.0	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=30mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			50	ns

## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

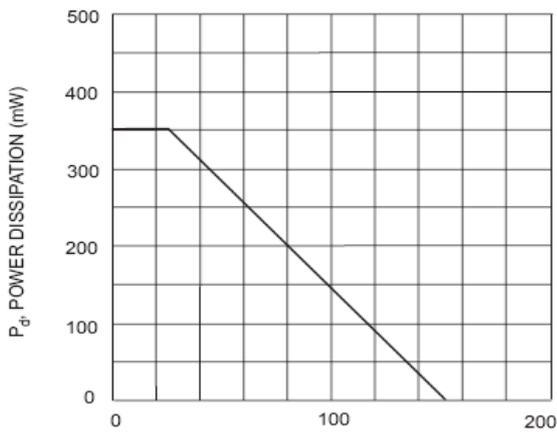


Fig. 1 Power Derating Curve, total package

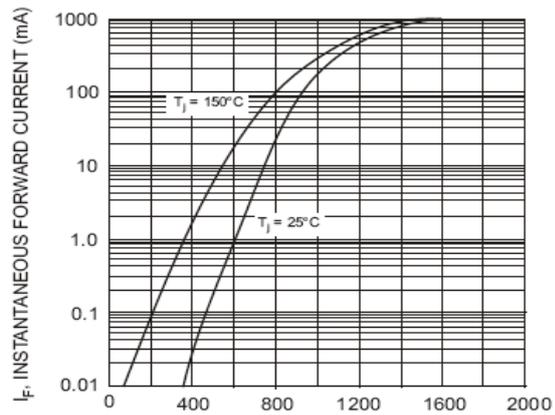


Fig. 2 Typical Forward Characteristics, per element

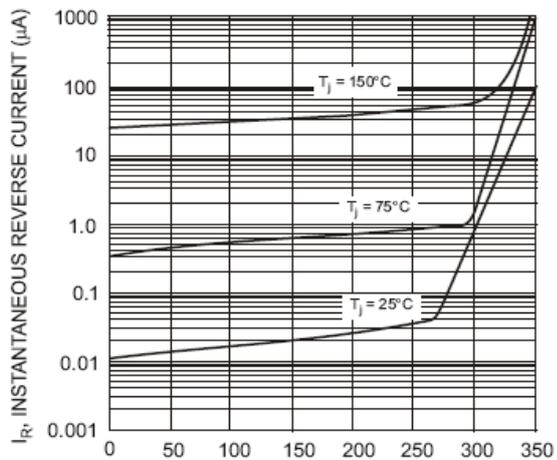


Fig. 3 Typical Reverse Characteristics, per element

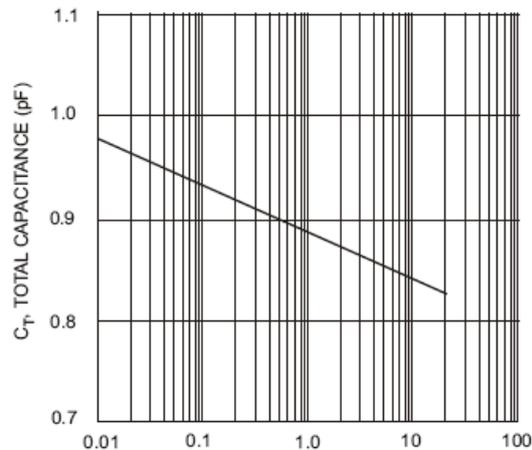
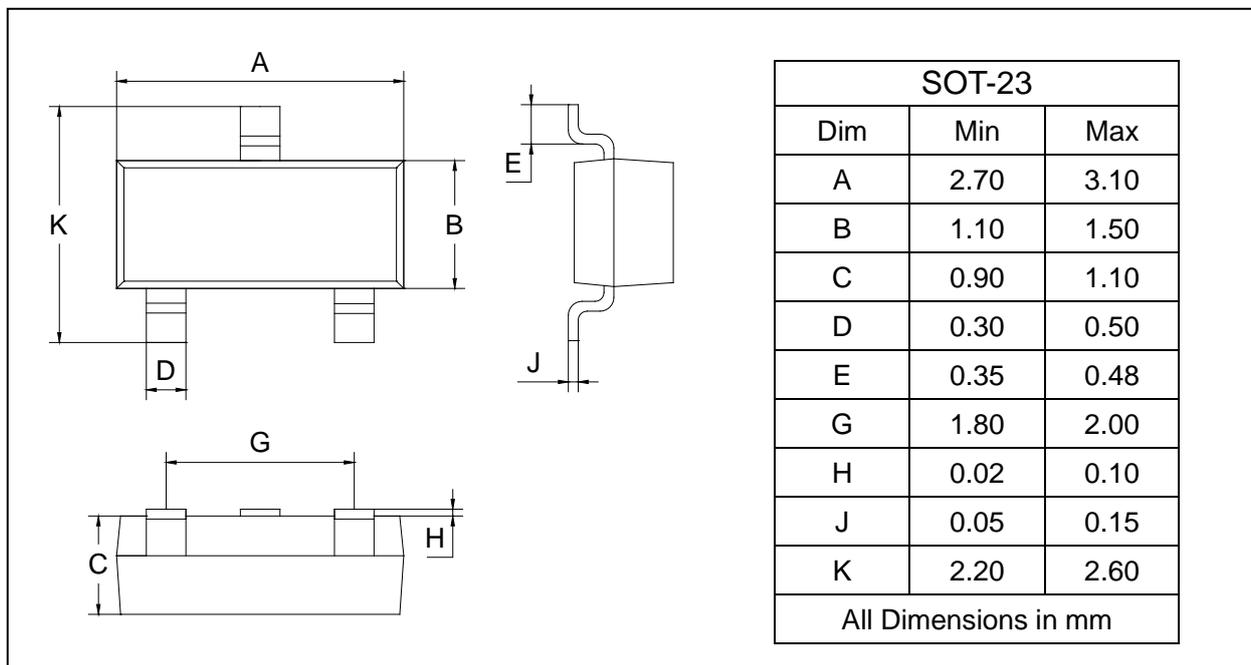


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element

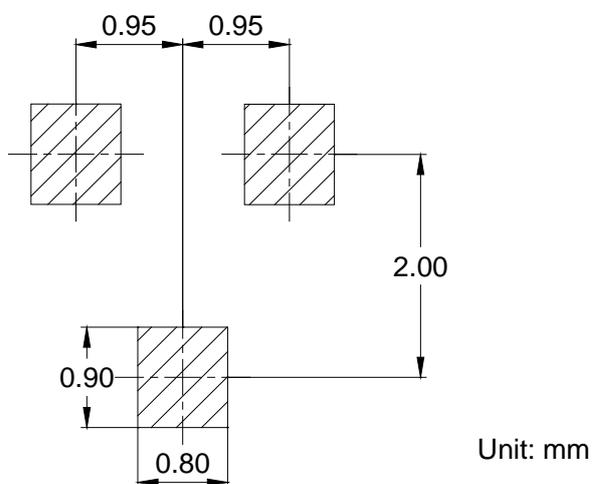
## PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

Device	Package	Shipping
MMBD3004A/C/S	SOT-23	3000 pcs / Tape & Reel