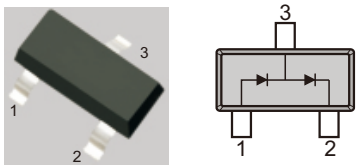
FEATURES

- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement
- Low Capacitance: Maximum of 1.5pF



Top View
Simplified outline SOT-23 And symbol

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	MMBD7000	Units
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
DC Reverse Voltage	V_R	100	V
Continuous Forward Current	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs	I_{FSM}	0.5	A
Power Dissipation	P_D	225	mW
Thermal Resistance Junction to Ambient Air	R_{thJA}	556	°C/W
Operating and Storage Temperature Rage	T_j	150	°C
Operating and Storage Temperature Rage	T_{stg}	-50 ~ +150	°C

Characteristics at T_a = 25 °C

Parameter	Symbols	Test Conditions	Min	Typical	Max	Units
Reverse Breakdown Voltage	$V_{(BR)}$	at I_R=100 μA	100			V
Forward Voltage	V_F	at 1.0 m A	0.55		0.70	V
		at 10 m A	0.67		0.82	
		at 100 m A	0.75		1.10	
Peak Reverse Current	I_R	at V_R=50V			1.0	μA
		at V_R=100V			3.0	
		at V_R=50V,T_j=125℃			100	
Typical Junction Capacitance	C_j	f=1MHz,V_R=0V		1.5		pF
Maximum Reverse Recovery Time	t_{rr}	IF=10mA,Irr=0.1xIR RL=100Ω,VR=6V		4		ns

Fig.1 Power Derating Curve

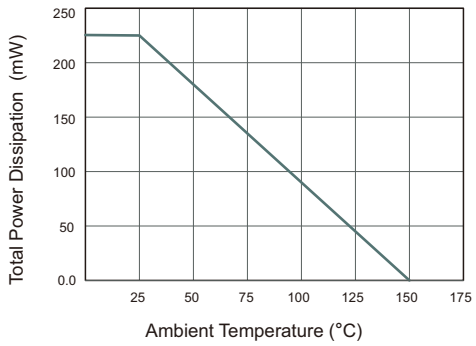


Fig.2 Typical Reverse Characteristics

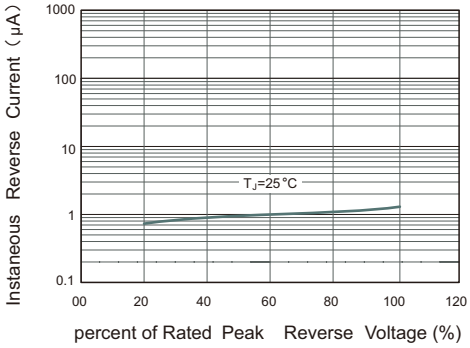


Fig.3 Typical Instaneous Forward Characteristics

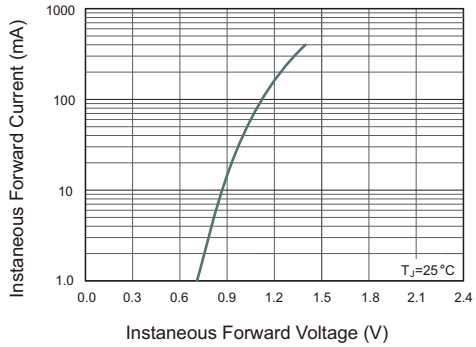
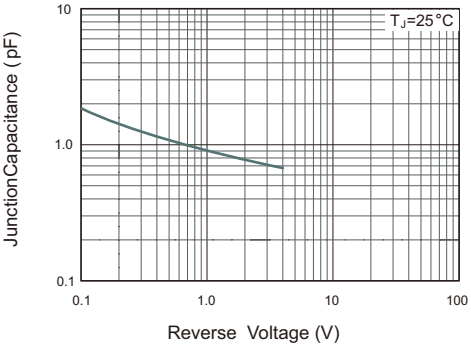
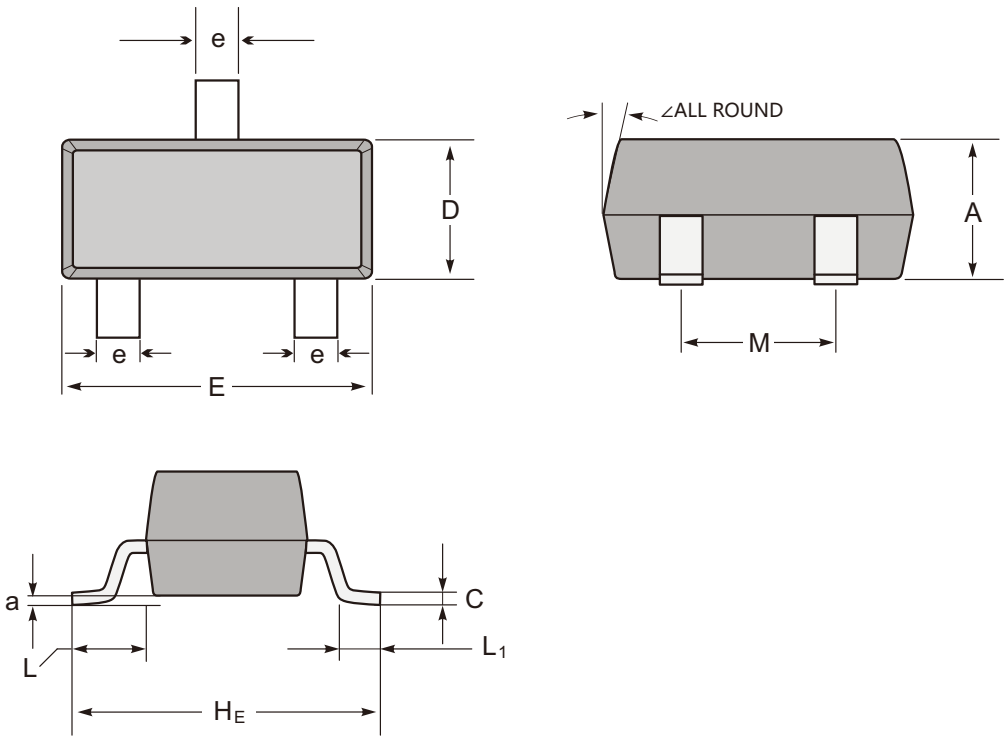


Fig.4 Typical Junction Capacitance



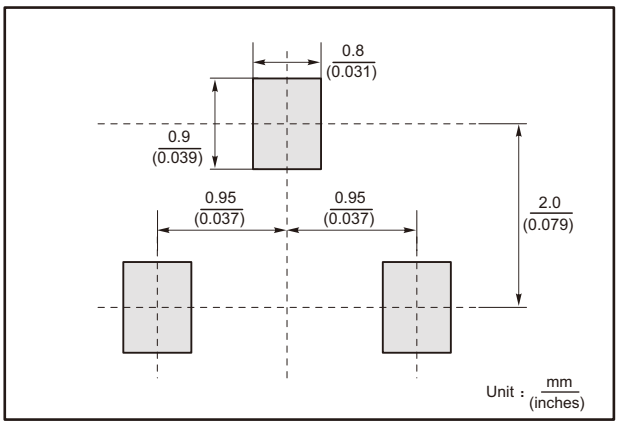
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a	∠
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.10	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.8			0.0	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	4	
	min	35	3	47	110	87	14	71			0.0	

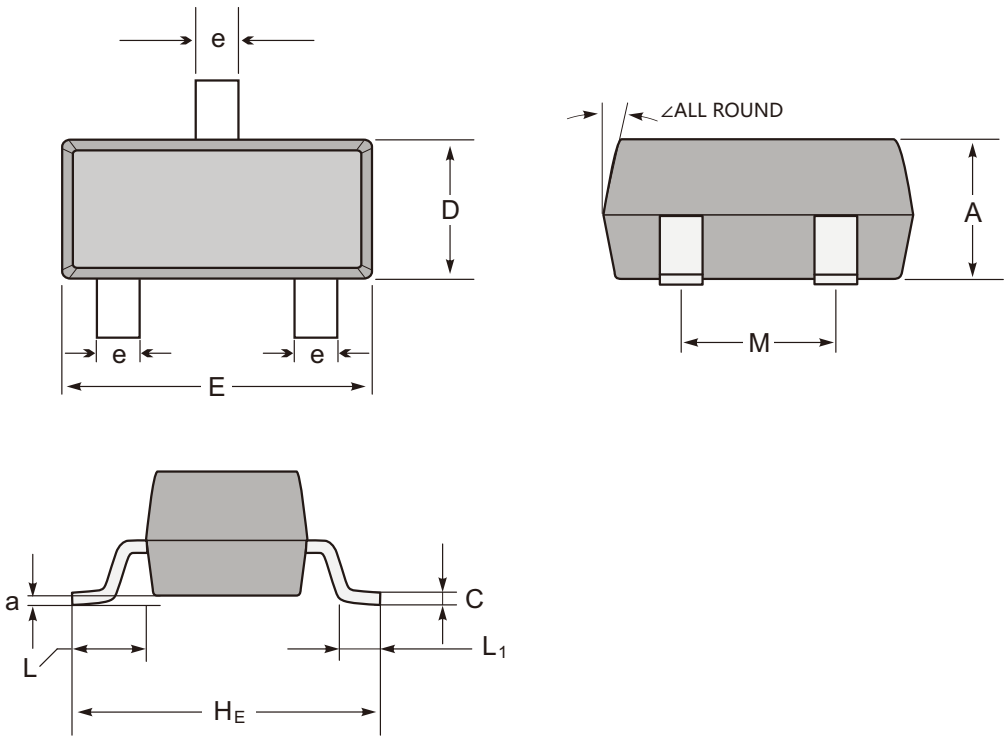
The recommended mounting pad size



Marking

Type number	Marking code
MMBD7000	T3

SOT-23 Package Outline Dimensions



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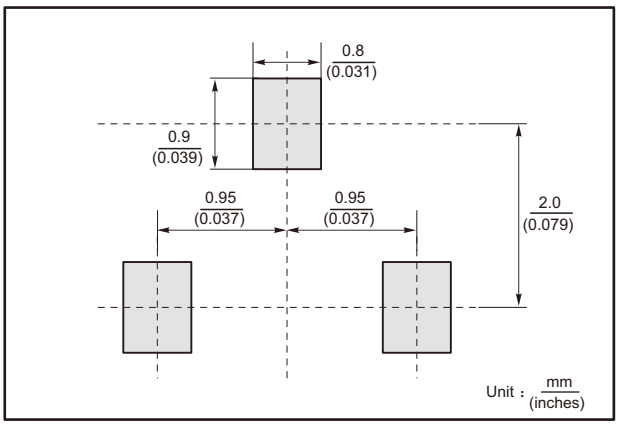

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