



MMBD7000 SURFACE MOUNT SWITCHING DIODE

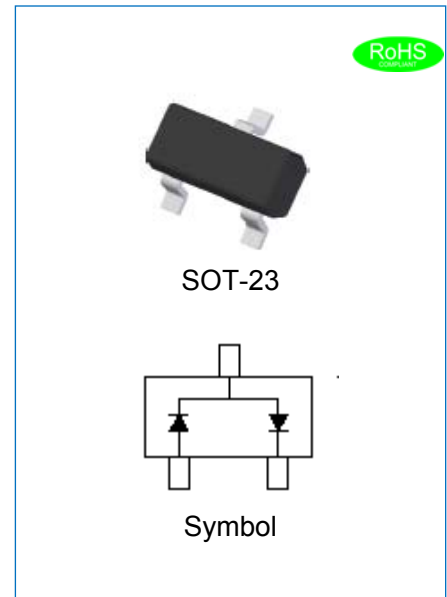
Rev.2.1

FEATURES

- ✧ Fast Switching Speed
- ✧ Surface Mount Package Ideally Suited for Automatic Insertion
- ✧ For Surface Mounted Applications
- ✧ RoHS Compliant/Green EMC
- ✧ For General Purpose Switching Applications
- ✧ High Stability and High Reliability
- ✧ Low Reverse Leakage

MECHANICAL DATA

- ✧ Case: SOT-23, Plastic
- ✧ Weight: 0.004grams(approx.)
- ✧ Quantity Per Reel:3,000pcs
- ✧ Type Code:M5C



ABSOLUTE MAXIMUM RATING CHARACTERISTICS

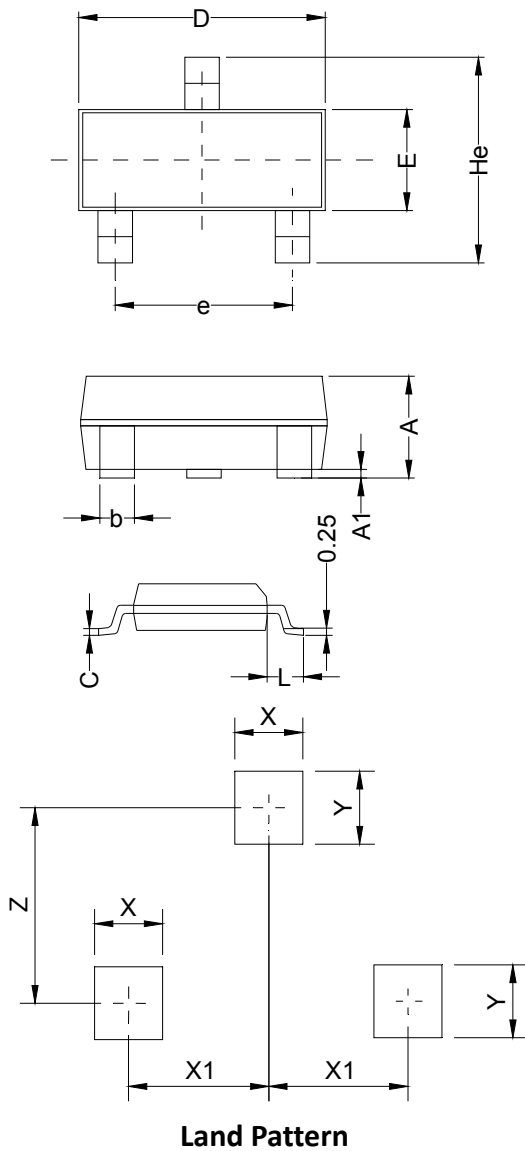
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	MMBD7000	Unit
Continuous Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RM}	100	V
Average Rectified Output Current	I_o	200	mA
Non-repetitive Peak Forward Surge Current at $t_p=1s$	I_{FSM}	0.5	A
Power Dissipation at $T_A=25^\circ C$	P_D	350	mW
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	357	$^\circ C/W$
Operating Junction Temperature Range	T_j	-55 to +150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ C$

ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified.)

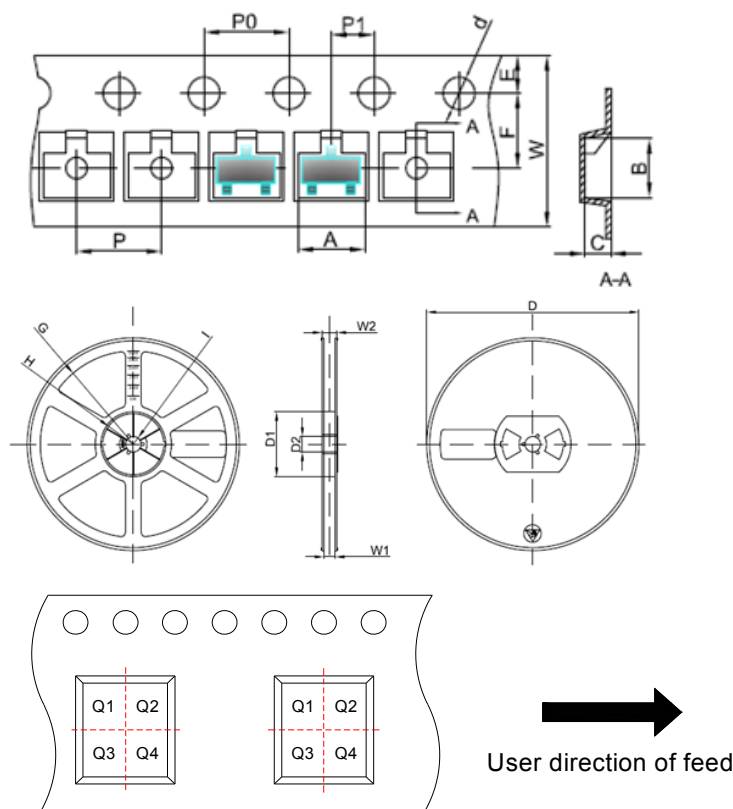
Symbol	Parameter	Conditions	Value			Unit
			Min.	Typ.	Max.	
V _{BR}	Breakdown Voltage	I _R =100μA	100	-	-	V
V _F	Forward Voltage	I _F =1.0mA	0.55	-	0.70	V
		I _F =10mA	0.67	-	0.82	
		I _F =100mA	0.75	-	1.10	
		I _F =150mA	-	-	1.25	
I _R	Reverse Current	V _R =20V, T _j =25°C	-	-	25	nA
		V _R =50V, T _j =25°C	-	-	1.0	μA
		V _R =100V, T _j =25°C	-	-	3.0	μA
		V _R =50V, T _j =125°C	-	-	100	μA
C _T	Capacitance	V _R =0V, f=1MHz	-	-	2	pF
T _{rr}	Reverse Recovery Time	I _F =I _R =10mA, I _{RR} =0.1*I _R , R _L =100Ω	-	-	4	ns

PACKAGE MECHANICAL DATA



Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.90	1.063	1.15	0.035	0.042	0.045
A1	0.00	0.075	0.14	0.000	0.003	0.006
b	0.30	0.40	0.50	0.012	0.016	0.020
C	0.07	0.10	0.15	0.003	0.004	0.006
D	2.80	2.90	3.00	0.110	0.114	0.118
e	1.80	1.90	2.00	0.071	0.075	0.079
E	1.20	1.30	1.40	0.047	0.051	0.055
L	0.55REF			0.022REF		
He	2.25	2.40	2.55	0.089	0.094	0.100
X	0.80			0.031		
X1	0.95			0.037		
Y	0.80			0.031		
Z	2.02			0.080		

TAPE AND REEL SPECIFICATION-SOT-23



Pin 1 quadrant: Q3

Packaging Description:

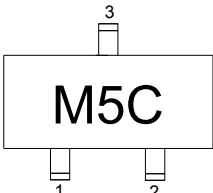
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
A	3.15	0.124
B	2.77	0.109
C	1.22	0.048
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	4.00	0.157
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

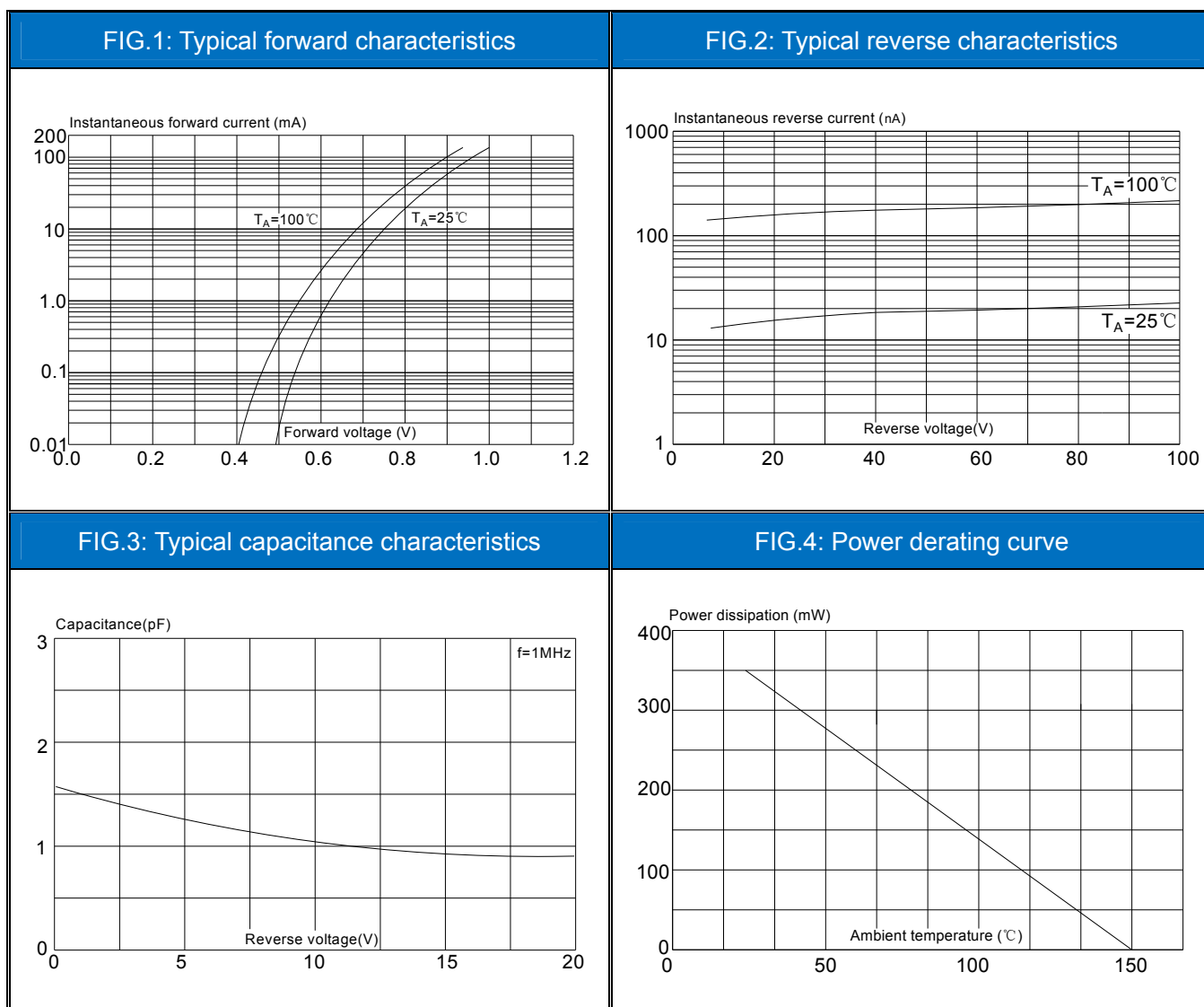
ORDERING INFORMATION

OUTLINE	UNIT WEIGHT (g/PCS) typ.	PACKAGE TYPE	QUANTITY REEL	DESCRIPTION
TAPING	0.004	SOT-23	3,000	7 inch reel pack

MARKING CODE

Part Number	Marking Code
MMBD7000	

CHARACTERISTICS CURVE




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