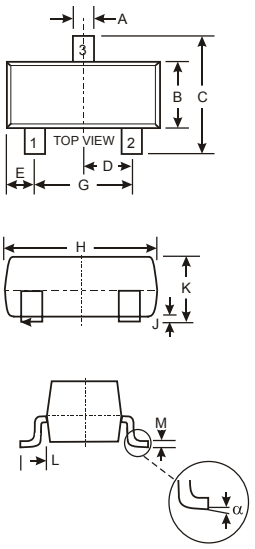
HAICHUANG SEMI

MMBD7000

DUAL SURFACE MOUNT SWITCHING DIODES

Features

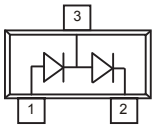
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Marking Code: M5C



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Non-Repetitive Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blockong Voltage	V_{RRM} V_{RWM} V_R	75	V
DC Forward Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 μs	I_{FSM}	1 2	A
Total Device Dissipation	P_{tot}	350	mW
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C



Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	100		V
Reverse voltage leakage current	I_R	V_R=50V V_R=100V		1.0 3.0	μA
Forward voltage	V_F	I_F=1mA I_F=10mA I_F=100mA	0.55 0.67 0.75	0.7 0.82 1.1	V
Diode capacitance	C_T	V_R=0V,f =1.0MHz		2	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA, Irr=0.1 x IR,RL=100Ω		4	ns

TYPICAL TRANSIENT CHARACTERISTICS

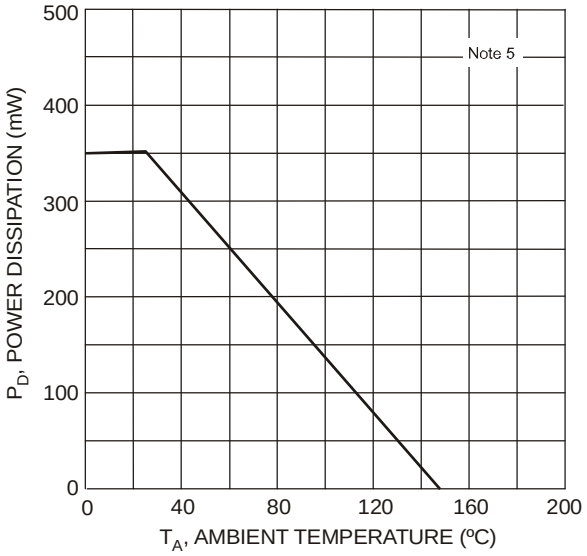


Figure 1 Power Derating Curve, Total Package

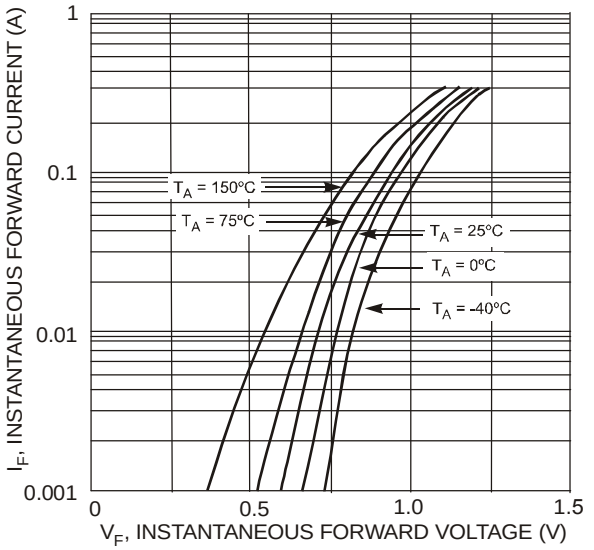


Figure 2 Typical Forward Characteristics, Per Element

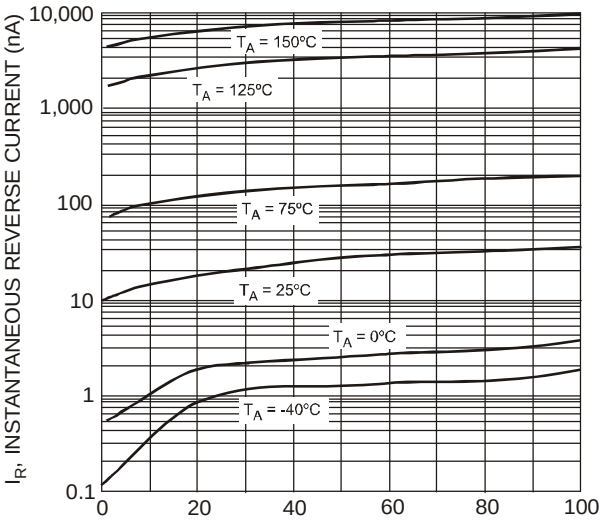


Figure 3 Typical Reverse Characteristics, Per Element

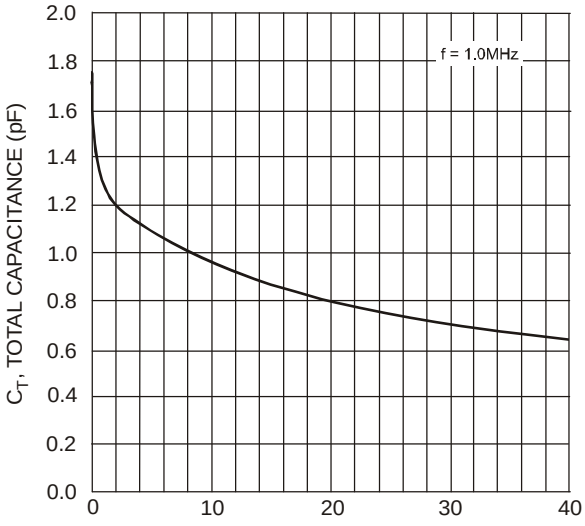


Figure 4 Total Capacitance vs. Reverse Voltage, Per Element

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