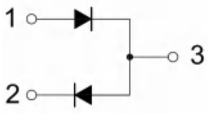
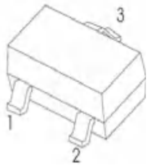
MMBD7000 SWITCHING DIODE



FEATURES

- Dual Swithching Diode
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications



MARKING: M5C

SOT-23

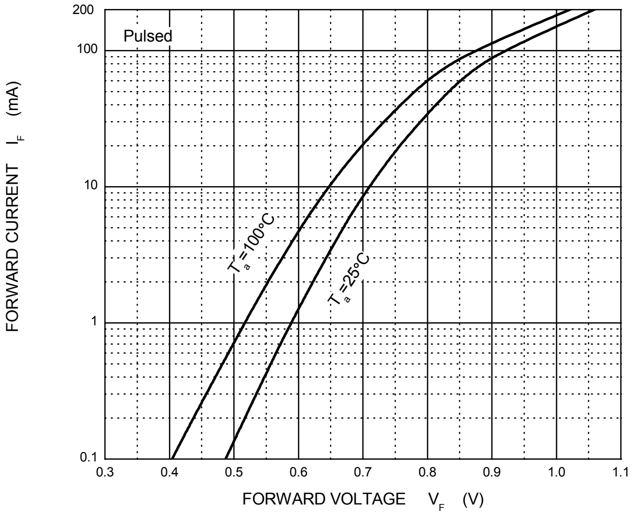
Maximum Ratings@Ta=25

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage **Working Peak Reverse Voltage**	V_{RRM} V_{RWM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t =8.3 ms	I_{FSM}	2	A
Power Dissipation	P_D	225	mW
Thermal Resistance,Junction to Ambient	$R_{\theta JA}$	556	℃/W
Junction temperature	T_j	150	℃
Storage temperature range	T_{STG}	-55~+150	℃

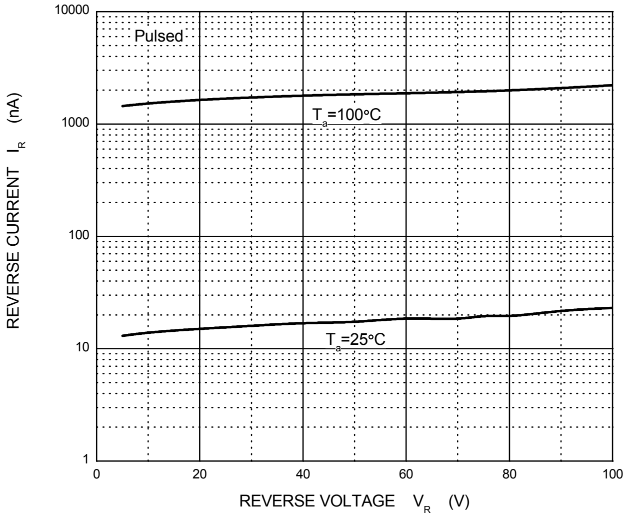
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

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

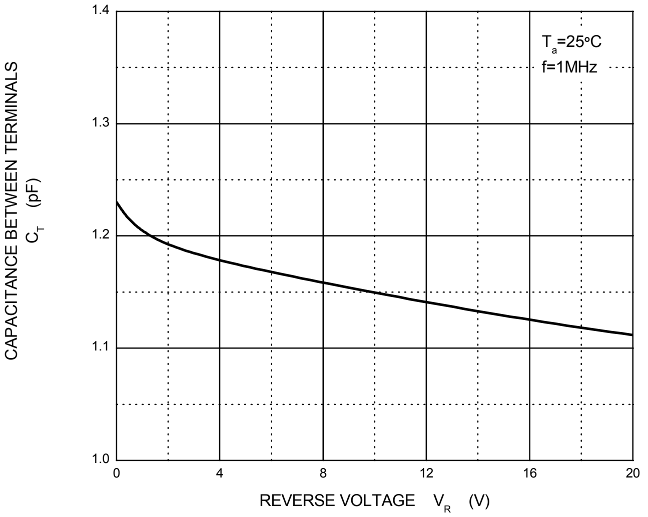
Forward Characteristics



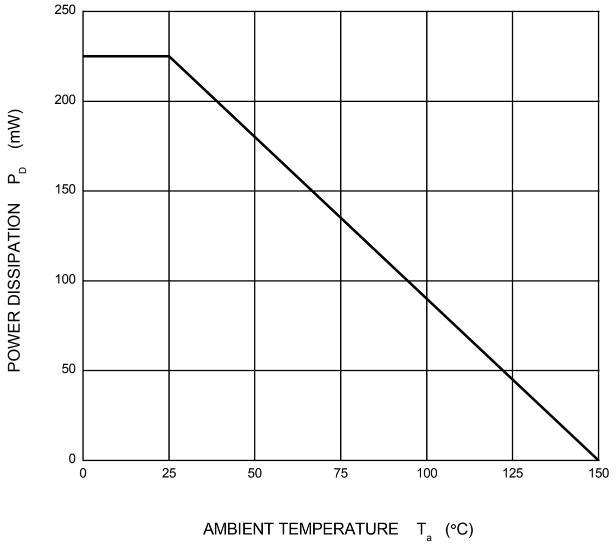
Reverse Characteristics



Capacitance Characteristics

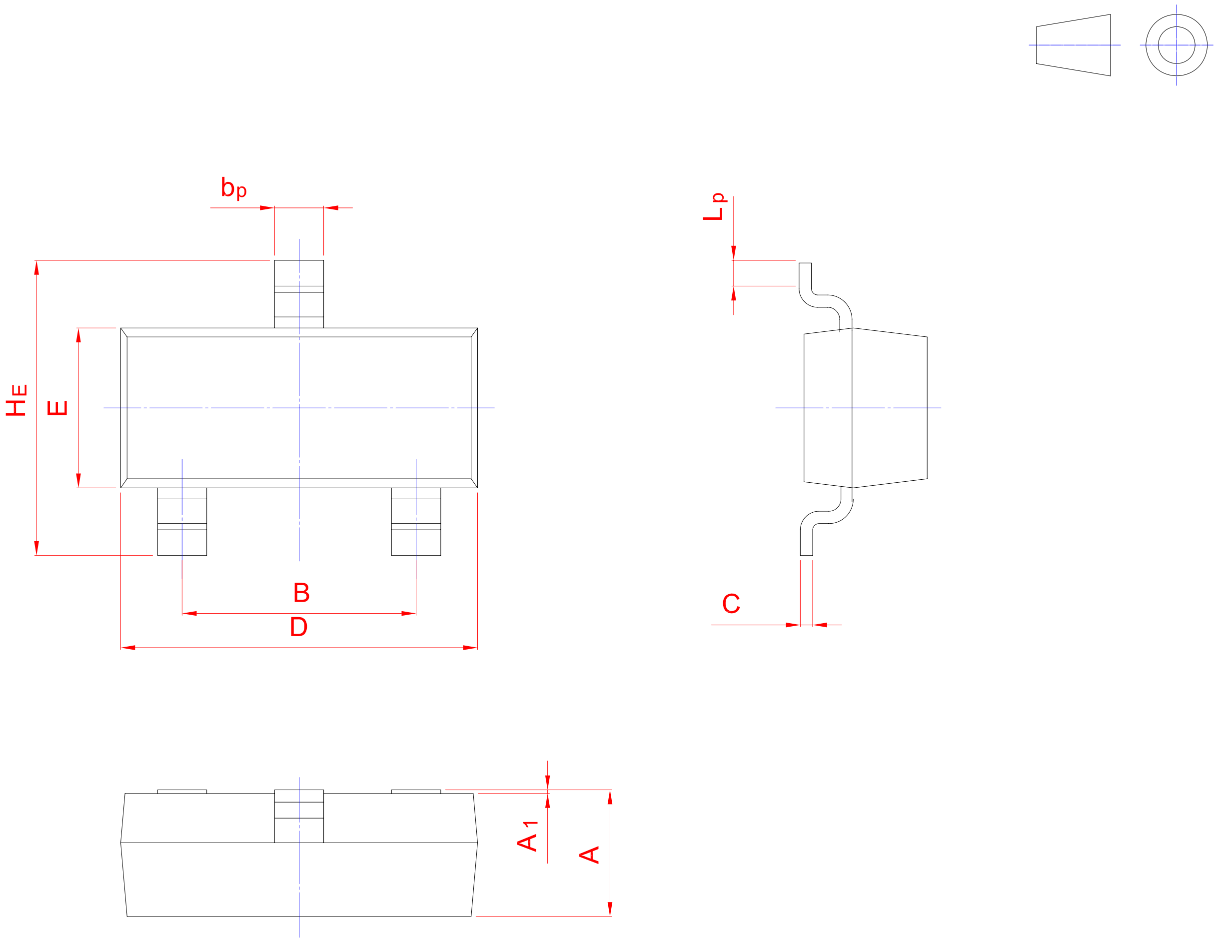


Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20