

MMBD1501A

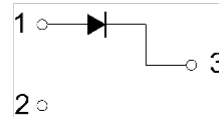
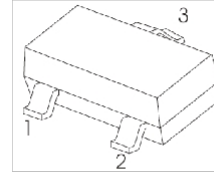
LOW LEAKAGE DIODE

FEATURES

- Low Leakage
- High Conductance

MARKING: A11

SOT-23



MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

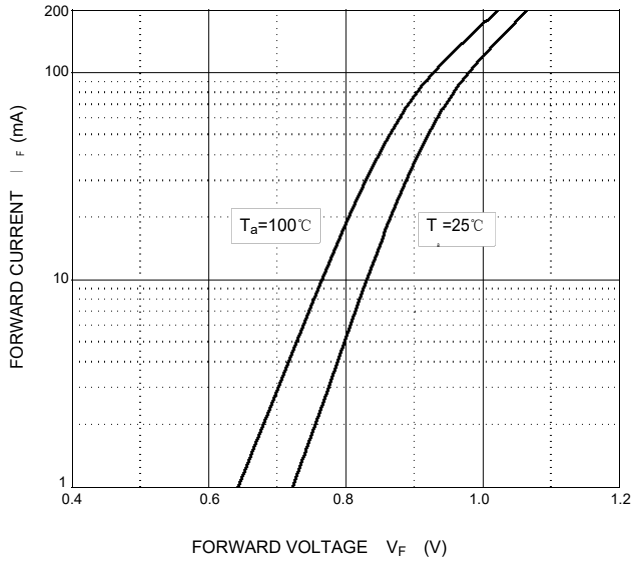
Symbol	Parameter	Value	Unit
V_R	DC Blocking Voltage	200	V
I_o	Continuous Forward Current	200	mA
I_{FM}	Peak Forward Current	700	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=1\text{s}$	1	A
	@ $t=1\text{ms}$	2	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	357	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$ unless otherwise specified)

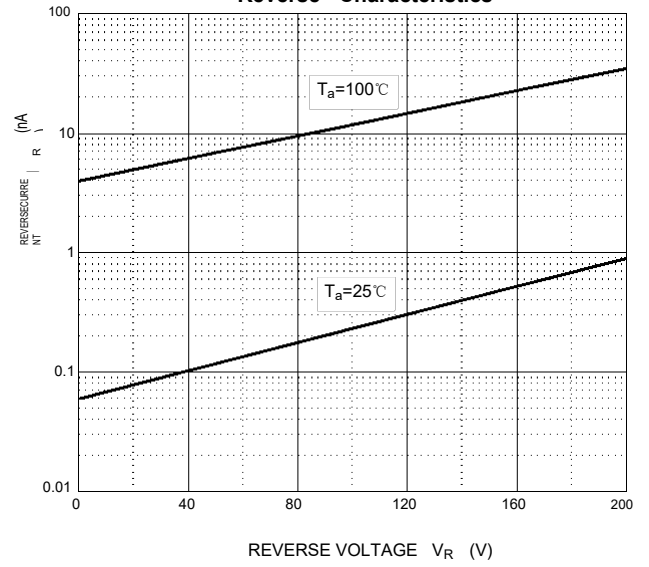
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=5\mu\text{A}$	200			V
Reverse current	I_R	$V_R=180\text{V}$			10	nA
Forward voltage	V_F	$I_F=1\text{mA}$			0.75	V
		$I_F=10\text{mA}$			0.85	
		$I_F=50\text{mA}$			0.95	
		$I_F=100\text{mA}$			1.1	
		$I_F=200\text{mA}$			1.3	
		$I_F=300\text{mA}$			1.5	
Total capacitance	C_{tot}	$V_R=0\text{V}, f=1\text{MHz}$			4	pF

Typical Characteristics

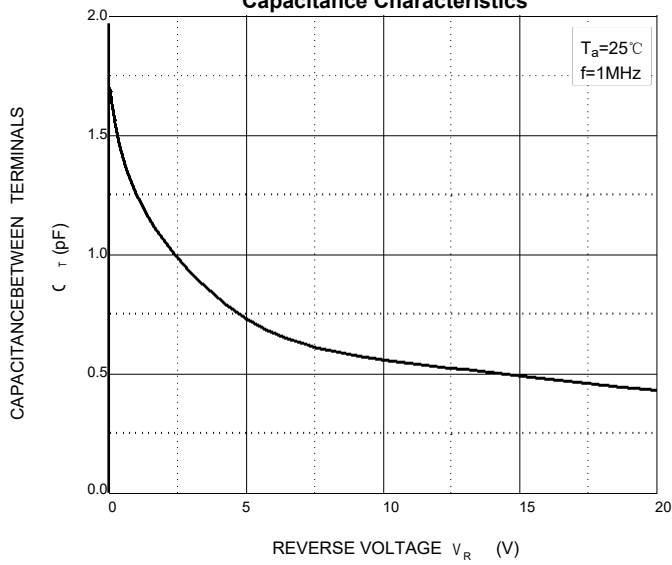
Forward Characteristics



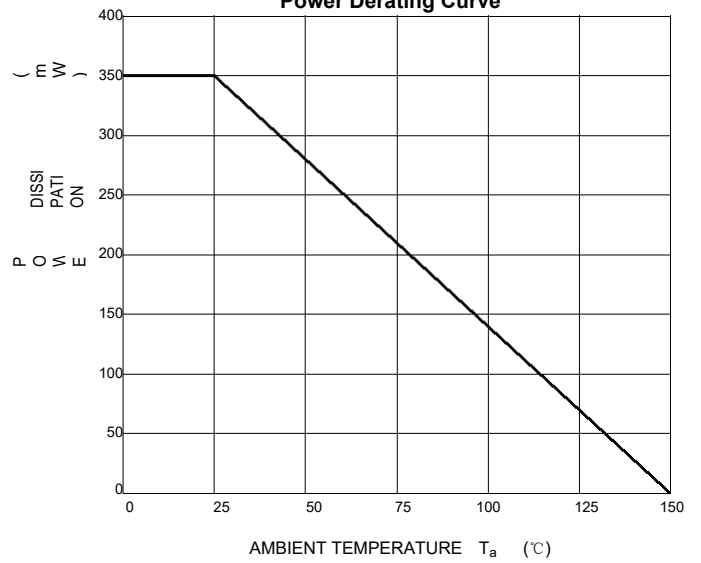
Reverse Characteristics



Capacitance Characteristics



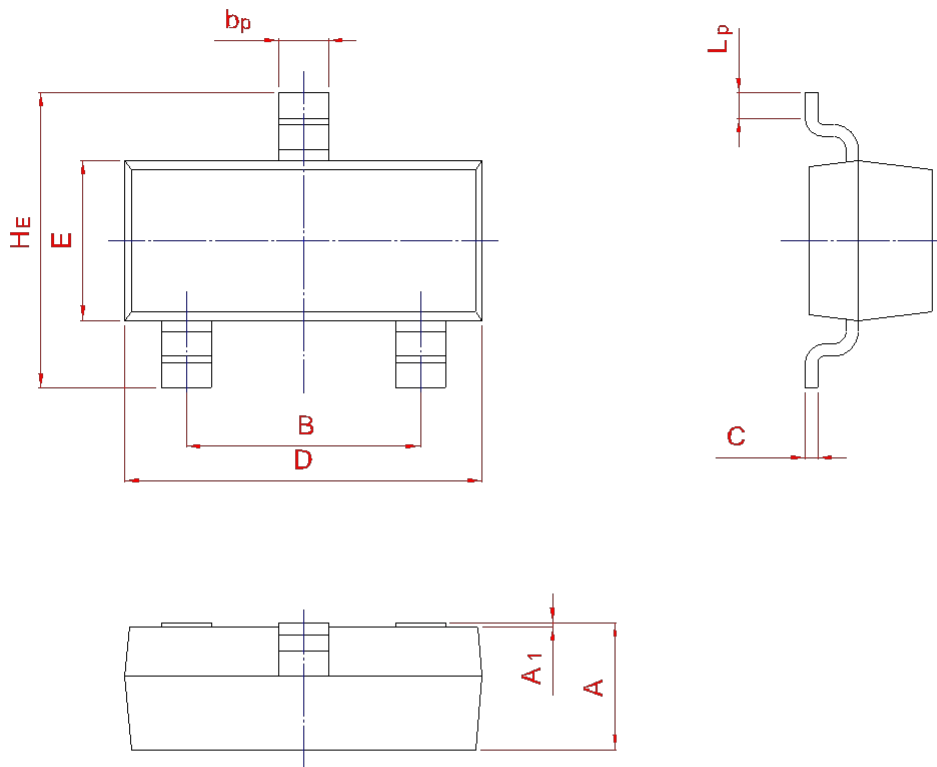
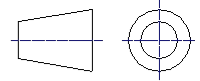
Power Derating Curve



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	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20