

SOT-23 Switching Diode 开关二极管

■ Internal Configuration 内部结构



■ Features 特点

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Power dissipation 耗散功率	$P_D(T_a=25^\circ\text{C})$	225	mW
Forward Current 正向电流	I_F	200	mA
Reverse Voltage 反向电压	V_R	75	V
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150°C	

■ Device Marking 产品打标

MMBD4148=KA2

■ Electrical Characteristics 电特性

($T_A=25^\circ\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位
Reverse Breakdown Voltage 反向击穿电压 ($I_R=100\mu\text{A}$)	$V_{(BR)}$	75	—	V
Reverse Leakage Current($V_R=20\text{V}$) 反向漏电流($V_R=75\text{V}$)	I_R	—	25 5	nA μA
Forward Voltage($I_F=1\text{mA}$) 正向电压($I_F=10\text{mA}$) ($I_F=50\text{mA}$) ($I_F=150\text{mA}$)	V_F	—	0.715 0.855 1.0 1.25	V
Diode Capacitance 二极管电容 ($V_R=0\text{V}$, $f=1\text{MHz}$)	C_T	—	2	pF
Reverse Recovery Time 反向恢复时间	T_{rr}	—	4	nS

■ Typical Characteristic Curve 典型特性曲线

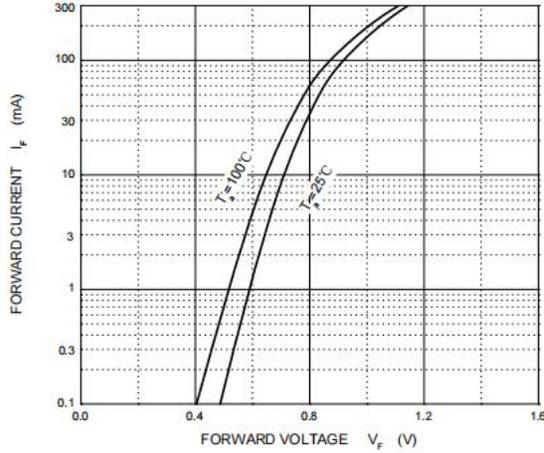


Figure 1: Forward Characteristics

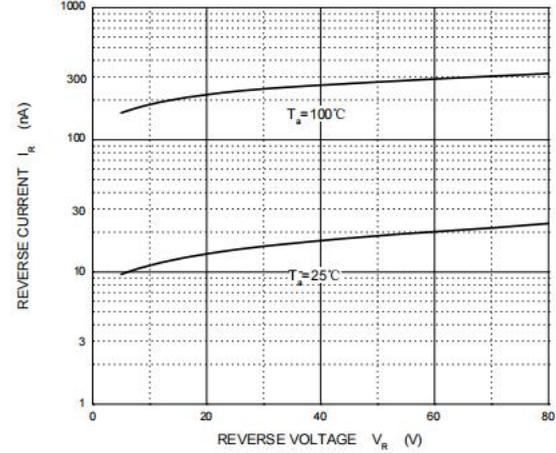


Figure 2: Leakage Current

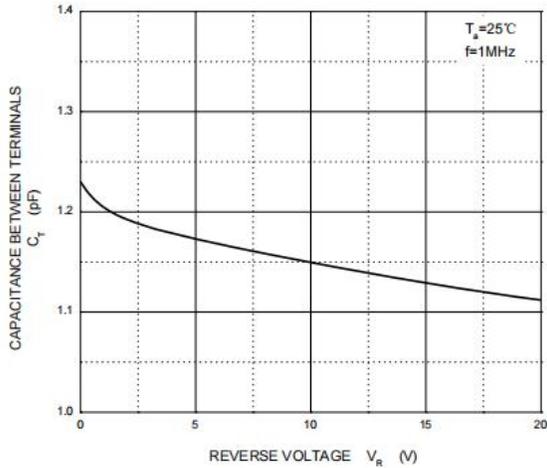


Figure 3: Capacitance Characteristics

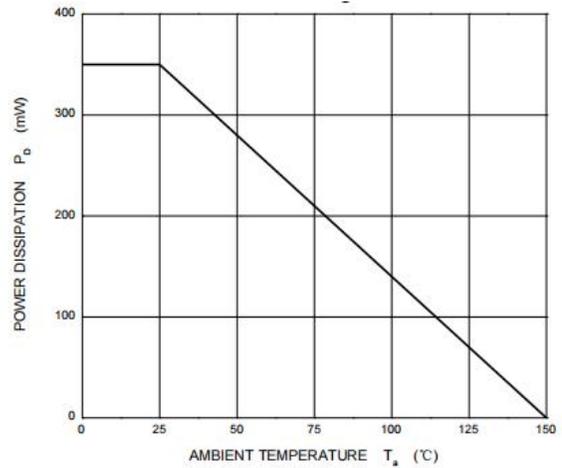
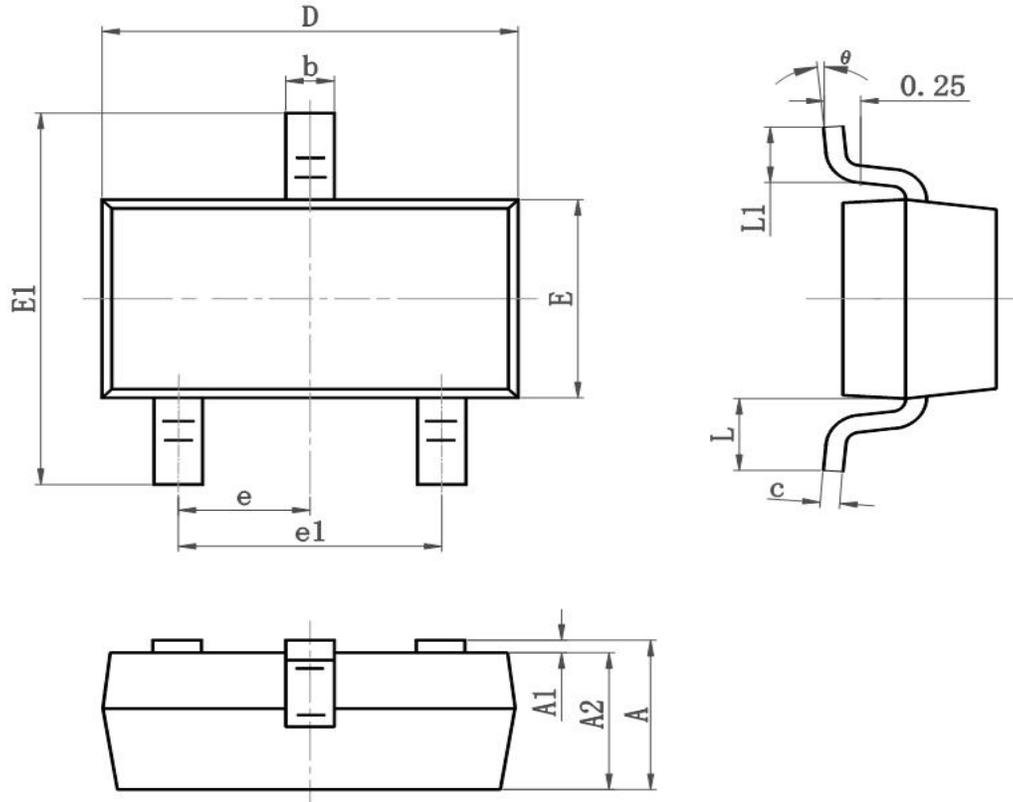


Figure 4: Power Derating Curve

■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°