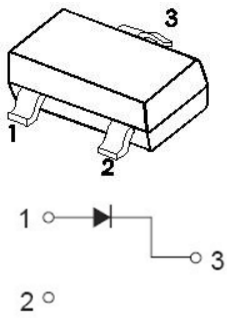


SOT-23 贴片塑封开关二极管

SOT-23 Plastic-Encapsulate Switching Diode

SOT-23



MARKING:KA2

特征 Features

- 开关速度小于 4.0nS; Fast Switching Device ($T_{rr} < 4.0\text{nS}$)
- 最大功率耗散 350mW; Power Dissipation of 350mW
- 高稳定性和可靠性。High Stability and High Reliability
- 反向漏电流小。Low reverse leakage

机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any
- Device meets MSL 1 requirements

极限值和温度特性($T_A = 25^\circ\text{C}$ 除非另有规定)Maximum Ratings & Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

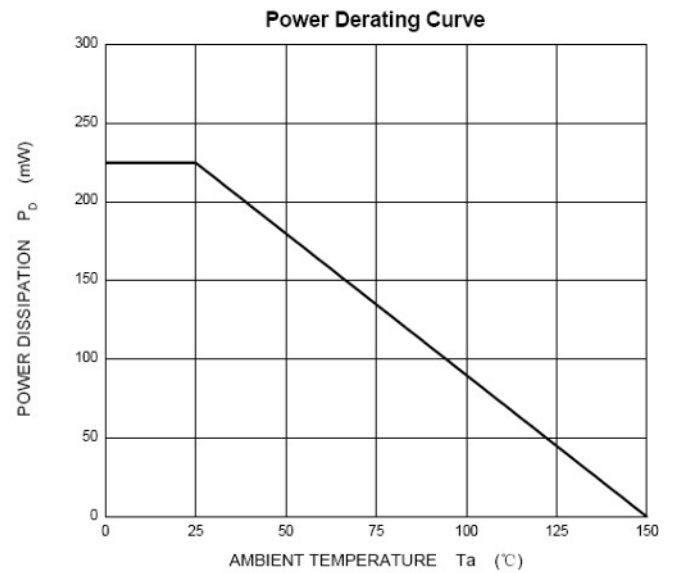
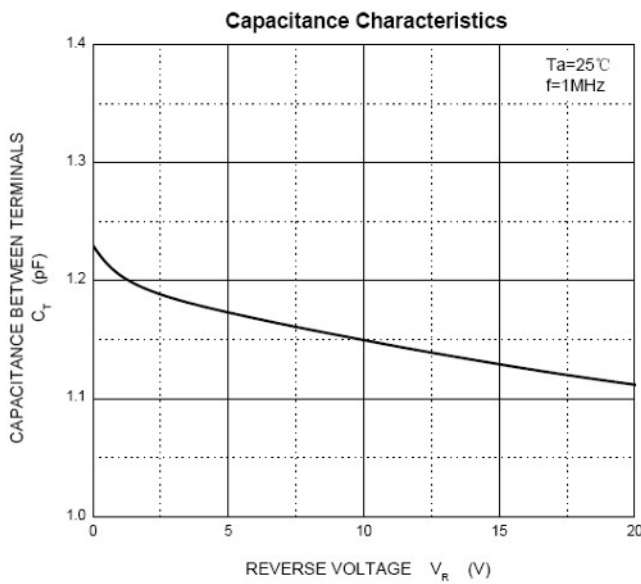
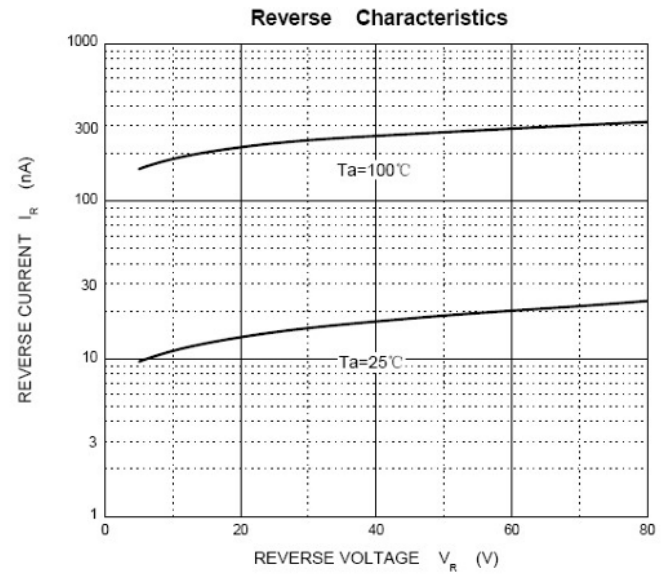
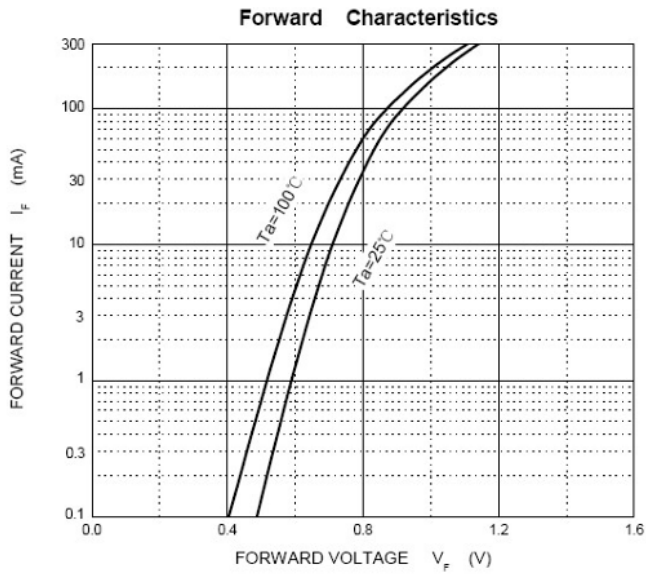
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	V_R	75	V
反向峰值电压 Peak Repetitive Reverse Voltage	V_{RRM}	100	V
功率消耗 Power Dissipation	P_d	350	mW
工作结温 Operating junction temperature	T_j	150	$^\circ\text{C}$
存储温度 Storage temperature range	T_s	-55-+150	$^\circ\text{C}$
平均整流输出电流 Average Rectified Output Current	I_O	150	mA
正向(不重复)浪涌电流 Peak Forward Surge Current @ $t_p=8.3\text{ms}$; $T_A=25^\circ\text{C}$	I_{FSM}	2.0	A
典型热阻 Typical thermal resistance	$R_{\theta JA}$	357	$^\circ\text{C/W}$

Valid provided that electrodes are kept at ambient temperature.

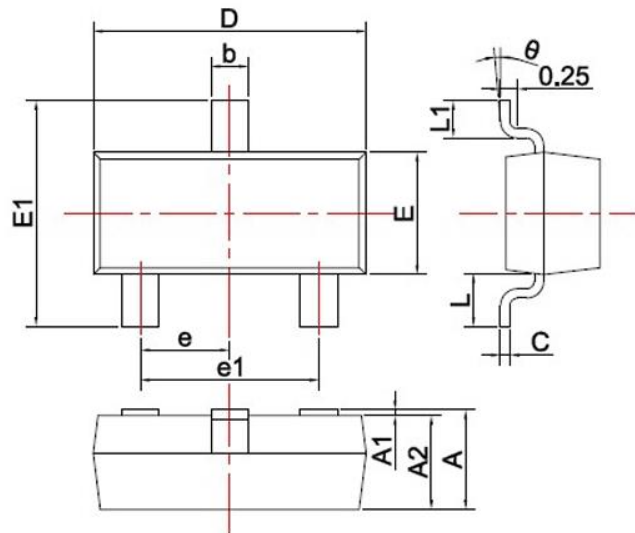
电特性 Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
V_{BR}	反向击穿电压 Reverse Voltage	$I_R=100\mu\text{A}$	75	---	V
I_R	反向漏电流 Reverse Leakage Current	$V_R=20\text{V}$	---	25	nA
		$V_R=75\text{V}$	---	2.5	μA
V_F	正向电压 Forward Voltage	$I_F=1.0\text{mA}$	---	0.715	V
		$I_F=10\text{mA}$	---	0.855	
		$I_F=50\text{mA}$	---	1.0	
		$I_F=150\text{mA}$	---	1.25	
T_{rr}	反向恢复时间 Reverse Recovery Time	$I_F=I_R=10\text{mA}, R_L=100\Omega$ $I_{RR}=0.1 \times I_R$	---	4	nS
C_T	结电容 Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	---	2	pF

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



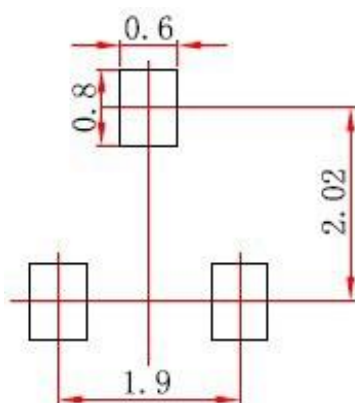
SOT-23 Package Outline Drawing



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Suggested Land Pattern



Note:

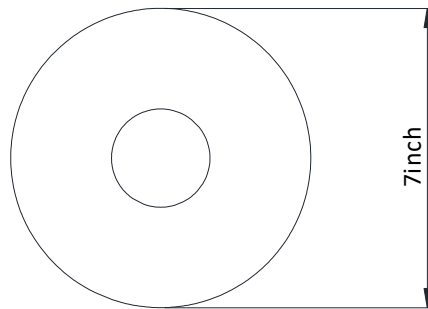
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Ordering Information

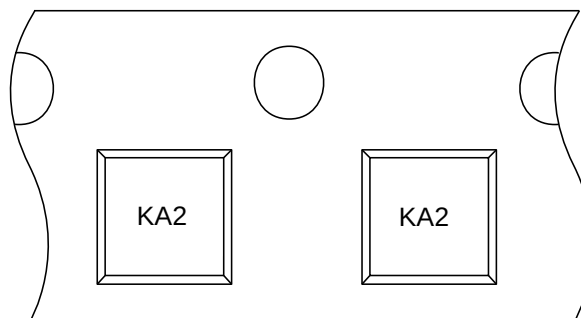
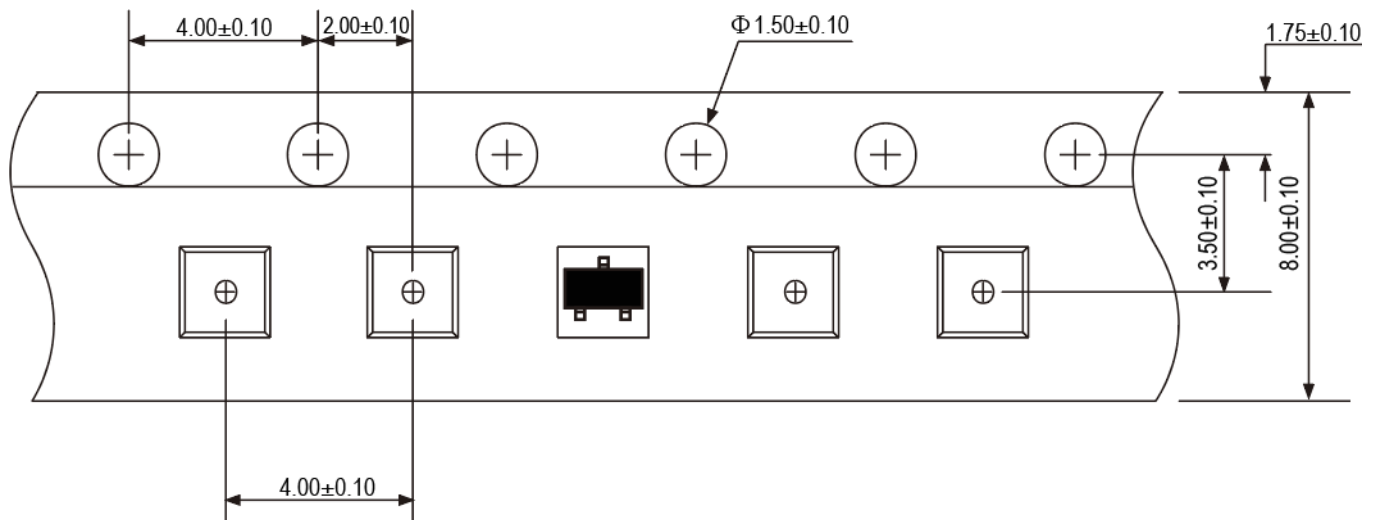
Part Number	Shipping	Reel Size
MMBD4148	3000/Tape & Reel	7 inch

Tape and Reel Information

Reel Dimensions



Tape Dimensions



User Direction of Feed

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