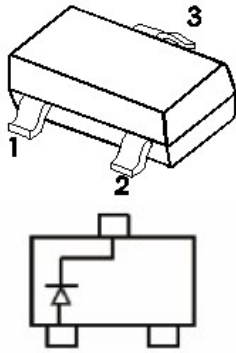


SOT-23

SOT-23 贴片塑封肖特基二极管



BAT54 MARKING: KL1

SOT-23 Plastic-Encapsulate Schottky Barrier Diode

特征 Features

- 大电流承受能力。High Current Capability
- 正向压降低。Low Forward Voltage Drop
- 开关速度快。Extremely Fast Switching Speed

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

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

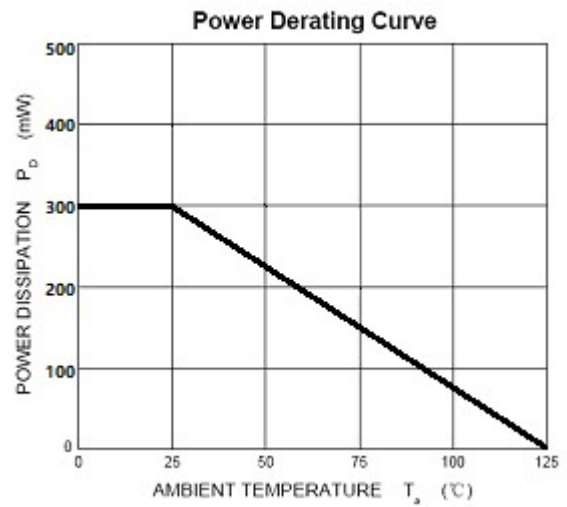
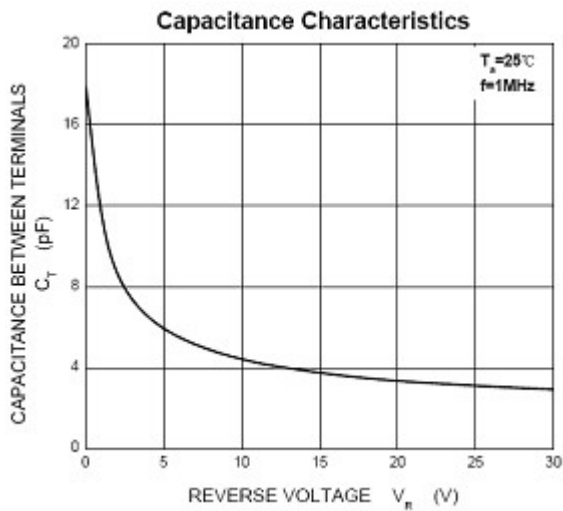
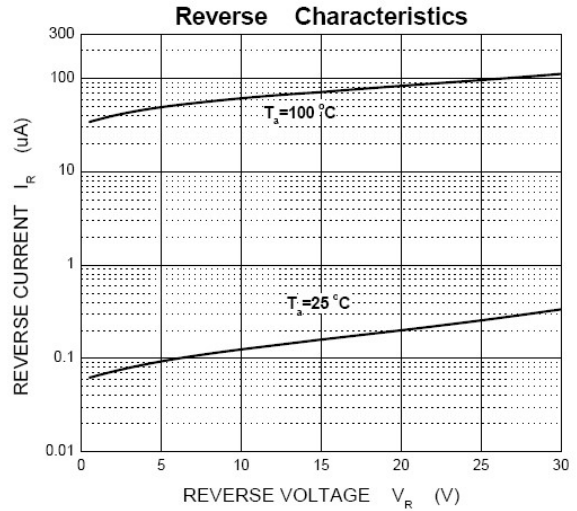
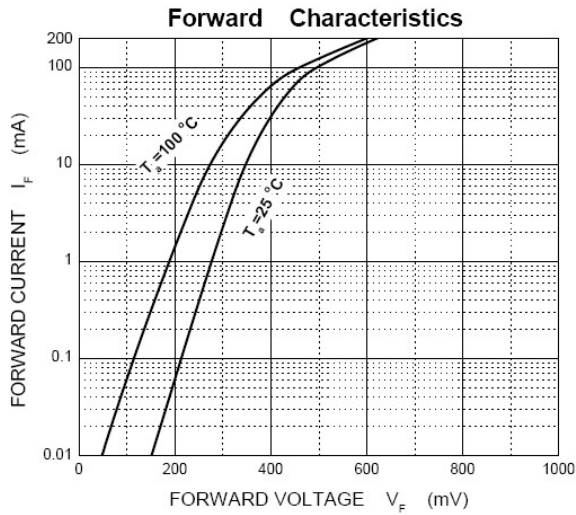
参数 Parameters	符号 Symbol	界限 Limit	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	VRRM	30	V
最大均方根电压 Maximum RMS voltage	VRMS	21	V
最大直流阻断电压 Maximum DC blocking voltage	VDC	30	V
最大正向平均整流电流 Maximum average forward rectified current	IFM	200	mA
峰值正向浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	IFSM	600	mA
典型热阻 Typical thermal resistance	RθJA	500	°C/W
功率消耗 Power Dissipation	PD	300	mW
结温 Junction Temperature	Tj	125	°C
存储温度 Storage temperature range	TSTG	-50-+150	°C

电特性 (TA = 25°C 除非另有规定)

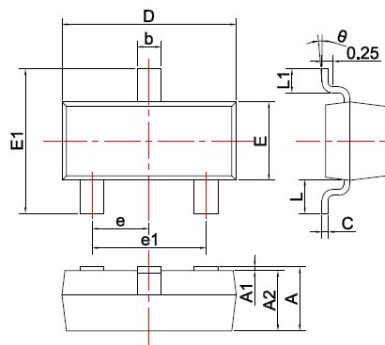
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

参数 Parameters	符号 Symbol	测试条件 Test conditions	Min	Typ	Max	单位 Unit
最大正向电压 Maximum forward voltage	VF1	IF = 0.1mA			240	mV
	VF2	IF = 1.0mA			320	
	VF3	IF = 10mA			400	
	VF4	IF = 30mA			500	
	VF5	IF = 100mA			1000	
最大反向电压 Maximum reverse breakdown voltage	VR	IR=100uA	30			V
最大反向电流 Maximum reverse current	IR	VR=25V			2.0	uA
典型结电容 Type junction capacitance	Cj	VR = 1.0V, f = 1MHz			10	pF
反向恢复时间 Reverse Recovery time	trr	IF=IR=10mA Irr=0.1XIR, RL=100 Ω			5	ns

Typical Characteristics



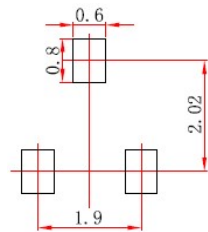
SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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
$\theta$	0°	8°

Unit: mm

焊盘设计参考 Precautions: PCB Design (Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
1. Controlling dimension; In millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.