

SOT-323



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-323 Small Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

MARKING:

BAT54	BAT54A	BAT54C	BAT54S
KL5	KL6	KL7	KL8

极限值和温度特性(TA = 25℃ 除非另有规定)

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

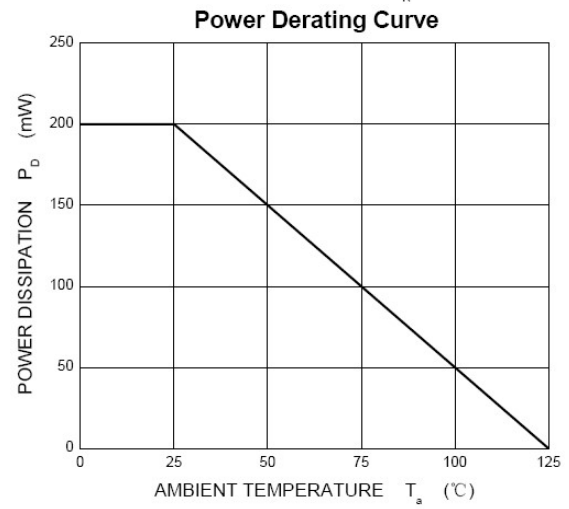
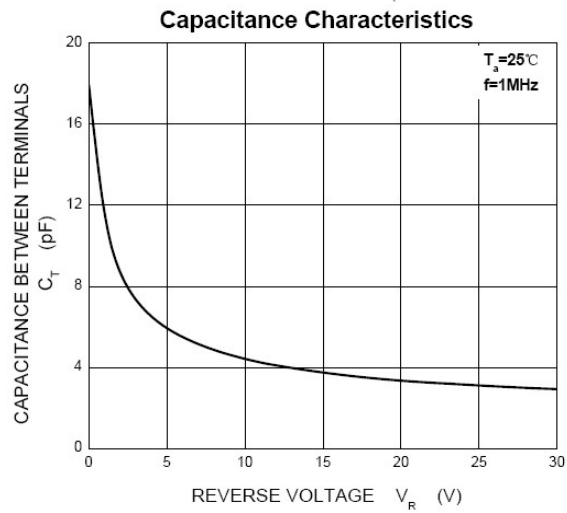
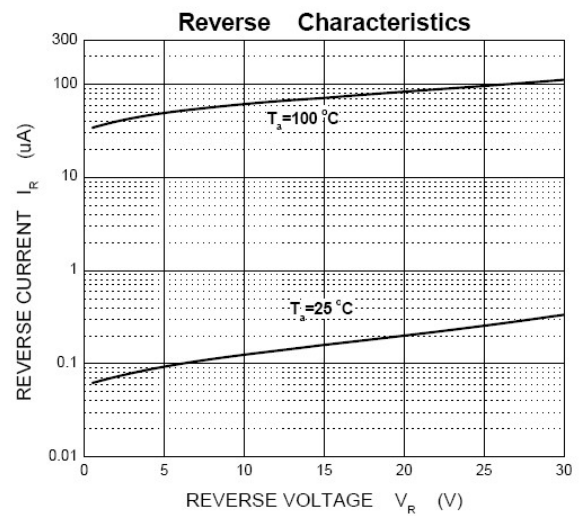
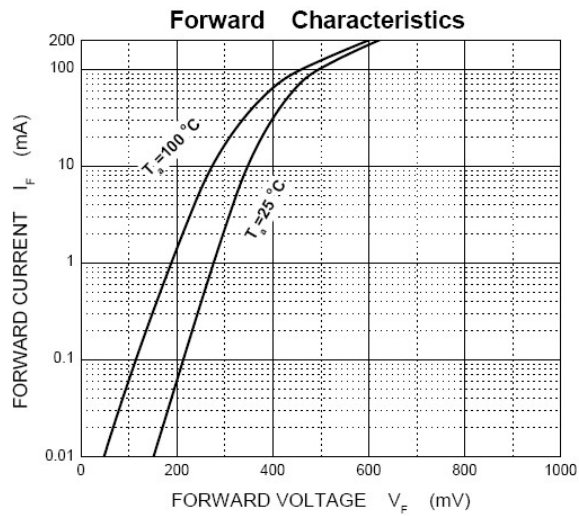
参数 Parameters	符号 Symbol	界限 Limit	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	VRRM	30	V
最大均方根电压 Maximum RMS voltage	VRMS	21	V
最大直流阻断电压 Maximum DC blocking voltage	VDC	30	V
最大正向平均整流电流 Maximum average forward rectified current	IFM	200	mA
峰值正向浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3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

电特性 (TA = 25℃ 除非另有规定)

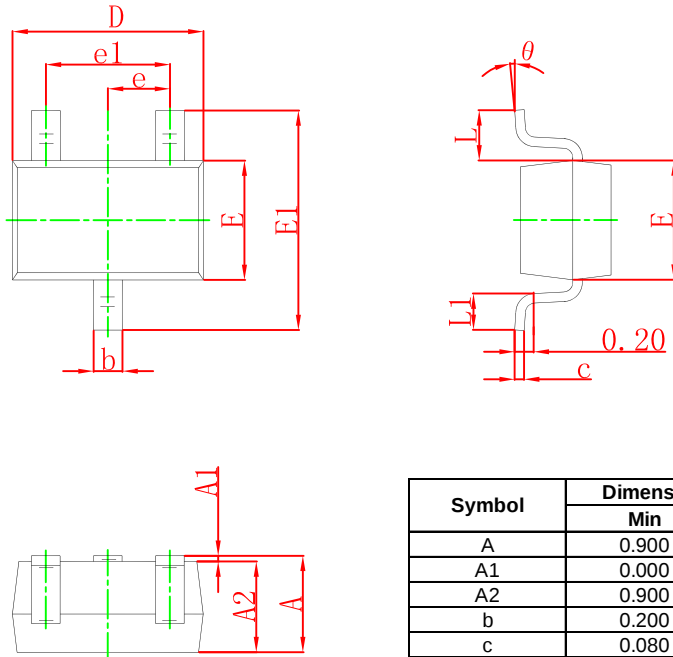
Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

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

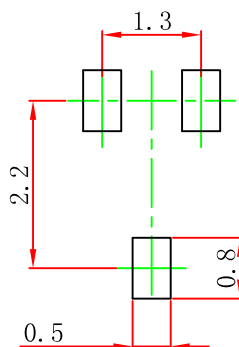


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°		8°	

SOT-323 Suggested Pad Layout



Note:

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