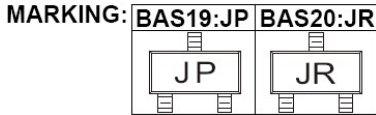
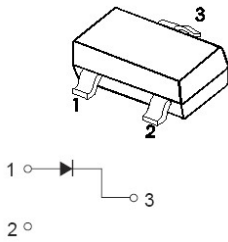


SOT-23

SOT-23 Plastic-Encapsulate Switching Diode



特征 Features

- 开关速度小于 50nS; Fast Switching Device (TRR <50 nS)
- 最大功率耗散 250mW; Power Dissipation of 250mW
- 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

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.)

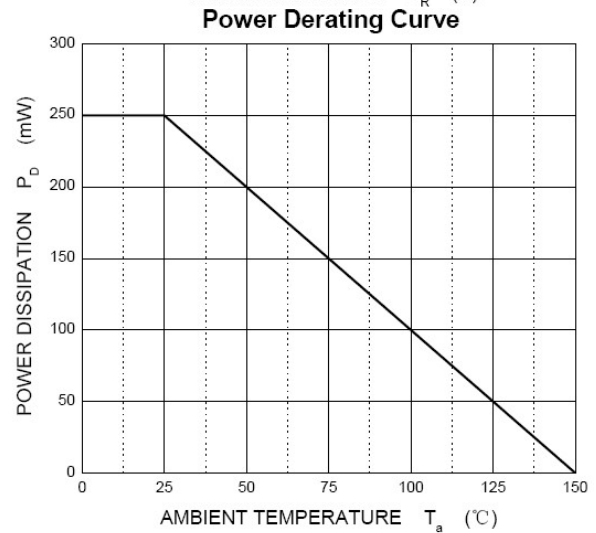
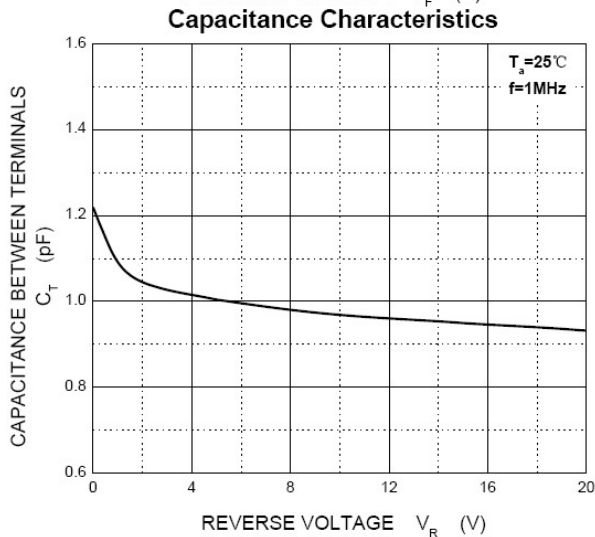
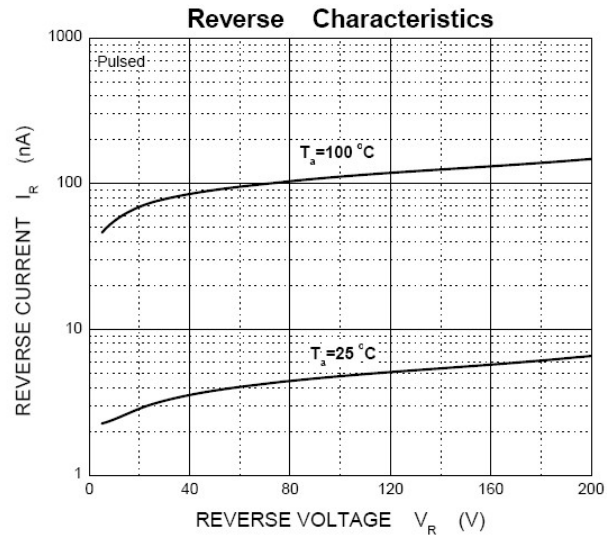
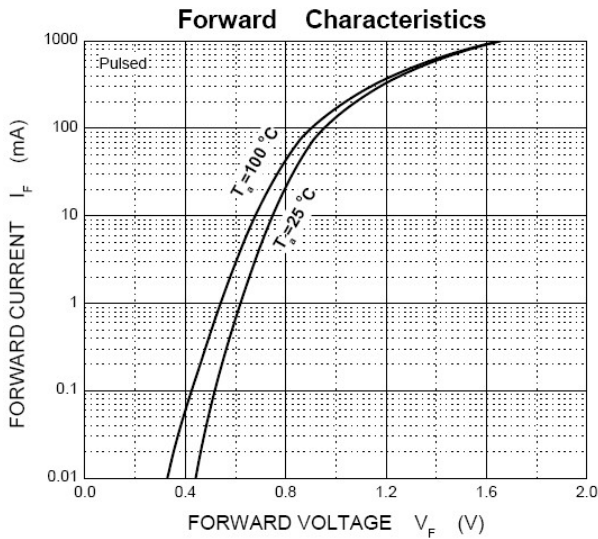
参数 Parameters	符号 Symbol	数值 Value		单位 Unit
		BAS19	BAS20	
反向电压 Reverse Voltage	V _R	100	150	V
反向峰值电压 Peak Repetitive Reverse Voltage	V _{RRM}	120	200	V
功率消耗 Power Dissipation	P _d	250		mW
平均整流电流 Average Rectified Current	I _o	200		mA
正向(不重复)浪涌电流 Peak Forward Surge Current @tp=1us; TA=25°C	I _{FSM}	2.5		A
工作结温 Operating junction temperature	T _j	150		°C
存储温度 Storage temperature range	T _s	-55-+150		°C
热阻抗 Thermal Resistance from Junction to Ambient	R _{θJA}	500		°C/W

Valid provided that electrodes are kept at ambient temperature.

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

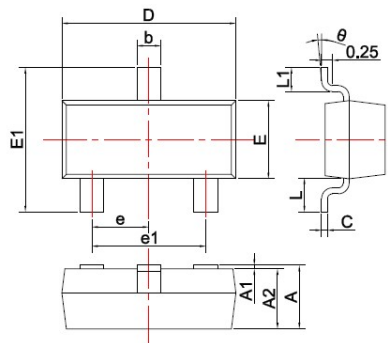
符号 Symbols	参数 Parameter	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
V(BR)	反向电压 Reverse Voltage	IR=100uA BAS19 BAS20	100 150		V
I _R	反向漏电流 Reverse Leakage Current	BAS19 VR=100V BAS20 VR=150V	---	0.1	uA
V _F	正向电压 Forward Voltage	IF=100mA	---	1.00	V
		IF=200mA	---	1.25	
TRR	反向恢复时间 Reverse Recovery Time	IF= IR=30mA	---	50	nS
		RL=100Ω			
		IRR=0.1 X I _R			
CT	结电容 Capacitance	VR=0V, f=1MHZ	---	2	pF

Typical Characteristics



SOT-23 PACKAGE OUTLINE

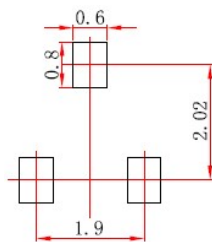
Plastic surface mounted package



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
θ	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.