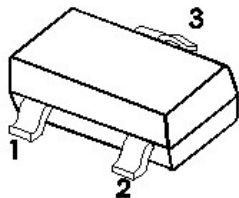
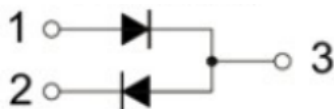


SOT-23

特征 Features

- 开关速度小于 50nS; Fast Switching Device (TRR <50nS)
- 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

MARKING: KL31


极限值和温度特性($T_A = 25^\circ\text{C}$ 除非另有规定)

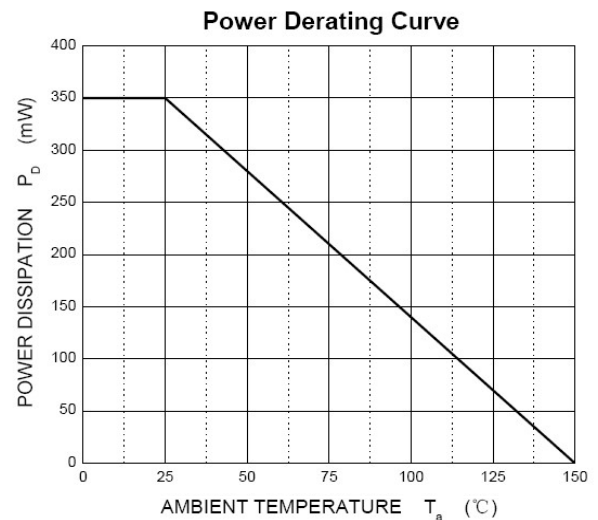
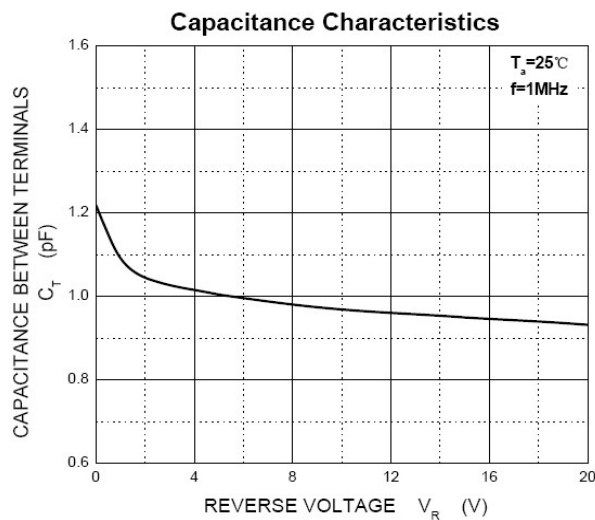
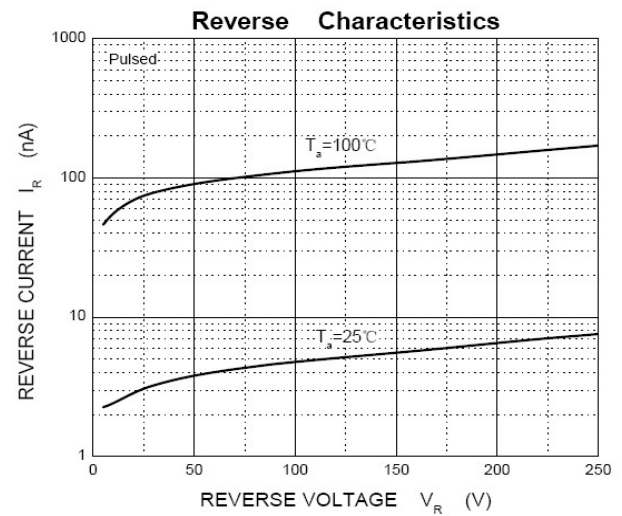
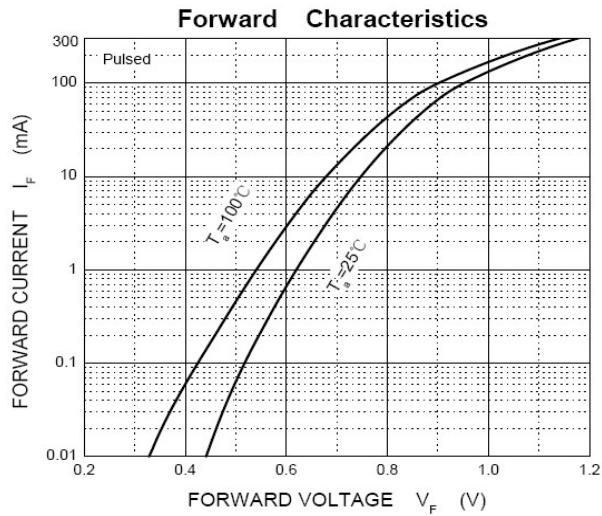
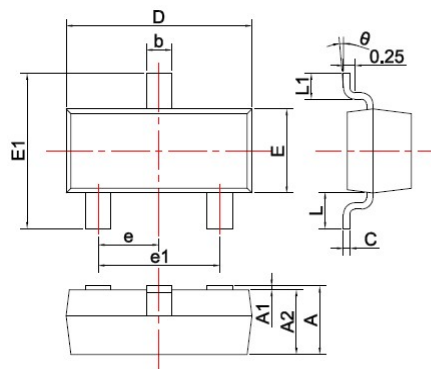
Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
反向电压 Reverse Voltage	V_R	200	V
反向峰值电压 Maximum Repetitive Reverse Voltage	V_{RRM}	250	V
功率消耗 Power Dissipation	P_d	350	mW
正向电流 Forward Current	$I_{F(AV)}$	400	mA
正向(不重复)浪涌电流 Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$; $T_A=25^\circ\text{C}$	I_{FSM}	1.7	A
工作结温 Operating junction temperature	T_j	150	$^\circ\text{C}$
存储温度 Storage temperature range	T_s	-55-+150	$^\circ\text{C}$
热阻抗 Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$

Valid provided that electrodes are kept at ambient temperature.

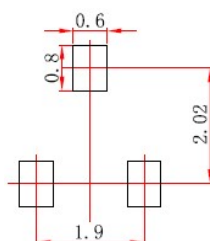
电特性 Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

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	$I_R=100\mu\text{A}$	250		V
I_R	反向漏电流 Reverse Leakage Current	$V_R=250\text{V}$	---	0.1	μA
V_F	正向电压 Forward Voltage	$I_F=100\text{mA}$	---	1.00	V
		$I_F=200\text{mA}$	---	1.25	
TRR	反向恢复时间 Reverse Recovery Time	$I_F=I_R=30\text{mA}$	---	50	nS
		$R_L=100\Omega$			
		$I_{RR}=0.1 \times I_R$			
CT	结电容 Capacitance	$V_R=0\text{V}$, $f=1\text{MHZ}$	---	5	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.

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