

特点/Features :

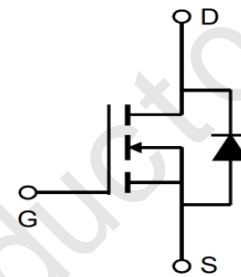
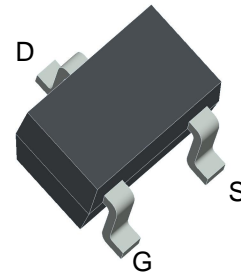
- 1、低导通电阻；
- 2、开关速度快；
- 3、低电压驱动；

用途/Applications :

用于一般开关电路。

印章/MARKING: KN

SOT-23



极限参数/Absolute maximum ratings(Ta=25°C)

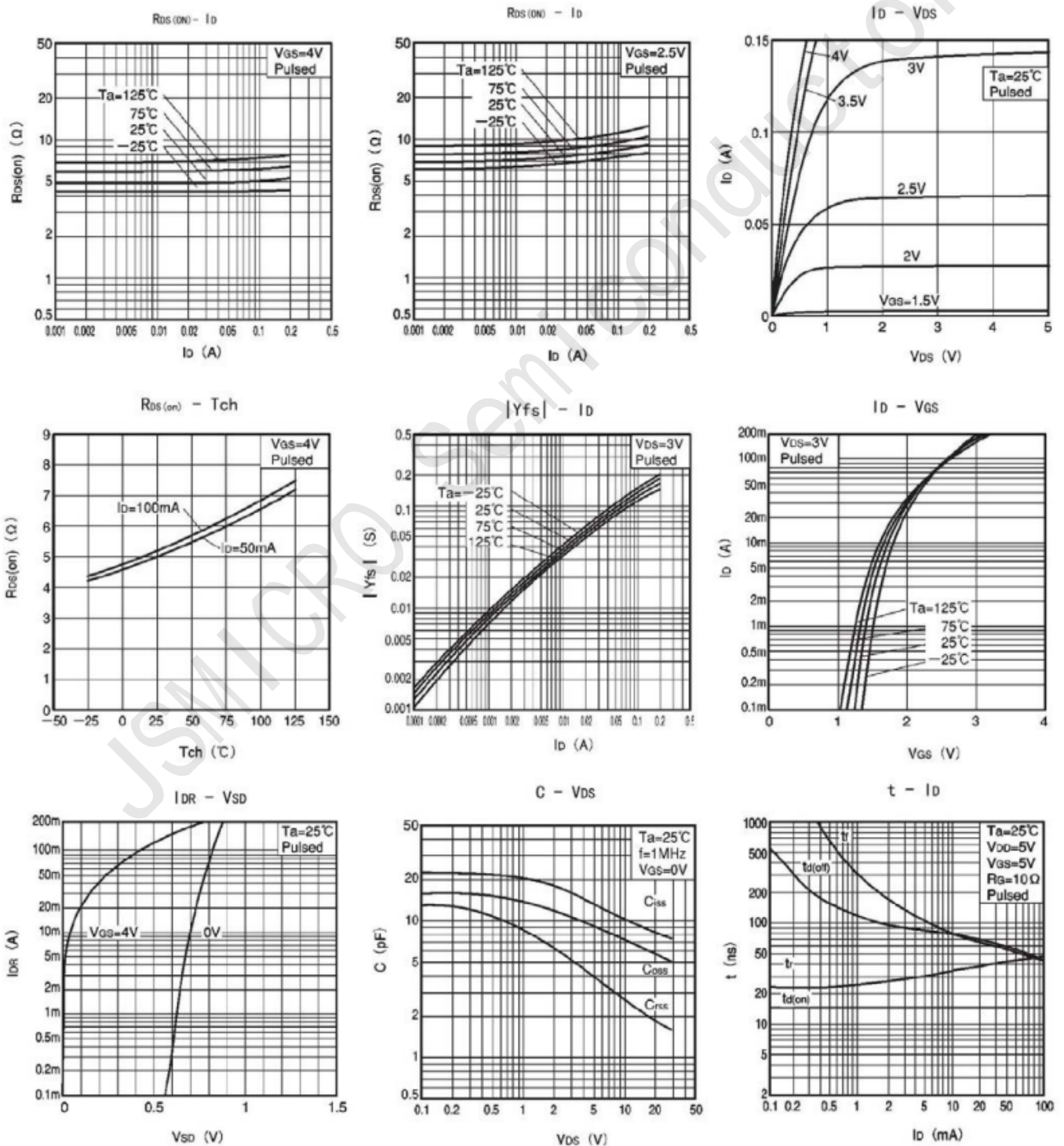
| 参数/Parameter | 符号/ Symbol | 数值/Value | 单位/Unit |
|--|-----------------|----------------|------------------------------|
| 源极-漏极电压/Drain-Source Voltage | V_{DS} | 30 | V |
| 栅极-源极电压/Gate-Source Volotage | V_{GSS} | ± 20 | V |
| 漏极电流 (持续) /Continuous Drain Current | I_D | 0.1 | A |
| 耗散功率/Power Dissipation | P_D | 0.35 | W |
| 热阻/ Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 350 | $^{\circ}\text{C}/\text{mW}$ |
| 结温/Junction Temperature | T_j | 150 | $^{\circ}\text{C}$ |
| 储存温度/Storage Temperature | T_{stg} | $-55 \sim 150$ | $^{\circ}\text{C}$ |

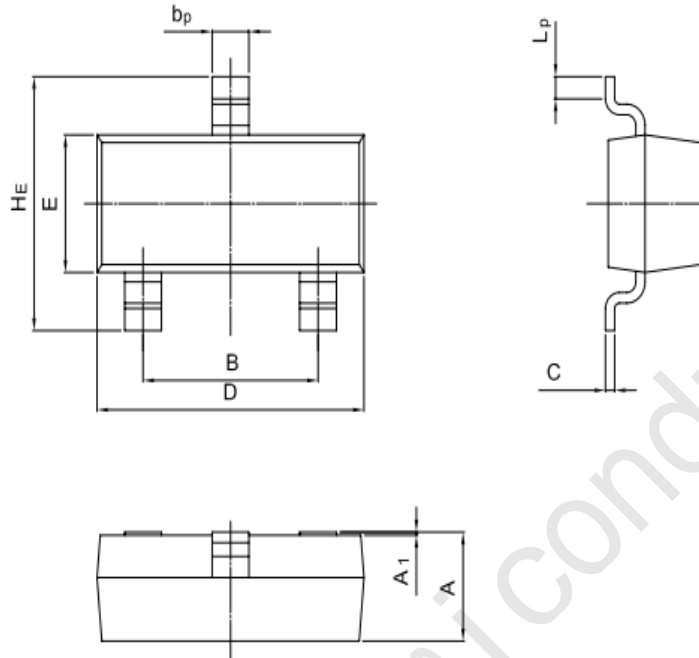
电性能参数/Electrical characteristics (Ta=25°C)

| 参数 | 符号 | 测试条件 | 最小值 | 典型值 | 最大值 | 单位 |
|-----------|---------------|--------------------------------|------|-----|-----------|----------|
| 源极-漏极击穿电压 | $V_{BR(DSS)}$ | $V_{GS}=0V, I_D=10 \mu A$ | 30 | | | V |
| 栅极开启电压 | $V_{GS(th)}$ | $I_D=100 \mu A, V_{DS}=3V$ | 0.8 | | 1.5 | V |
| 栅极漏电流 | I_{GSS} | $V_{GS}=\pm 20V, V_{DS}=0V$ | | | ± 500 | nA |
| 零栅压漏极电流 | I_{DSS} | $V_{GS}=0V, V_{DS}=30V$ | | | 0.2 | μA |
| 漏极导通电流 | $I_{D(ON)}$ | $V_{GS}=10V, V_{DS}=7V$ | 500 | | | mA |
| 漏极源极导通电阻 | $R_{DS(ON)}$ | $V_{GS}=4V, I_D=10mA$ | | | 8 | Ω |
| | | $V_{GS}=2.5V, I_D=1mA$ | | | 13 | |
| 正向跨导 | g_{fs} | $V_{DS}=3V, I_D=10mA$ | 20 | | | ms |
| 漏极-源极导通电压 | $V_{DS(ON)}$ | $V_{GS}=10V, I_D=500mA$ | 0.5 | | 3.75 | V |
| | | $V_{GS}=5V, I_D=50mA$ | 0.05 | | 0.375 | V |
| 输入电容 | C_{iss} | $V_{DS}=5V, V_{GS}=0V, f=1MHz$ | | 13 | | pF |

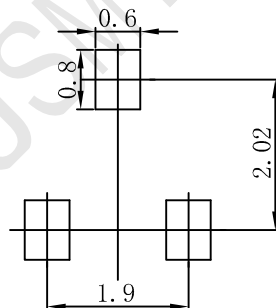
| | | | | | |
|------|-------------|--|----|--|----|
| 输出电容 | C_{oss} | | 9 | | |
| 开启时间 | $t_{(on)}$ | $V_{GS}=5V, V_{DD}=5V, I_D=10mA,$ $R_g=10\Omega, R_L=500\Omega$ | 15 | | ns |
| 上升时间 | t_r | | 35 | | ns |
| 关闭时间 | $t_{(off)}$ | | 80 | | ns |
| 下降时间 | t_f | | 80 | | ns |

典型特性曲线图/Typical Characteristics



SOT-23 Package Outline Dimensions


| UNIT | A | B | bp | C | D | E | HE | A1 | Lp |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| mm | 1.40 0.95 | 2.04 1.78 | 0.50 0.35 | 0.19 0.08 | 3.10 2.70 | 1.65 1.20 | 3.00 2.20 | 0.100 0.013 | 0.50 0.20 |

SOT-23 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.