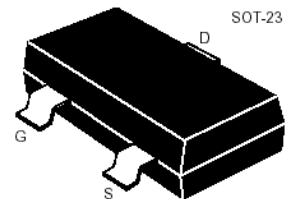




2SK3018

SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)



**N-Channel Enhancement-Mode MOS FETs**

N 沟道增强型 MOS 场效应管

■ **MAXIMUM RATINGS** 最大額定值

| Characteristic 特性參數                   | Symbol 符號  | Max 最大值  | Unit 單位 |
|---------------------------------------|------------|----------|---------|
| Drain-Source Voltage<br>漏極-源極電壓       | $BV_{DSS}$ | 35       | V       |
| Gate- Source Voltage<br>柵極-源極電壓       | $V_{GS}$   | $\pm 20$ | V       |
| Drain Current (continuous)<br>漏極電流-連續 | $I_{DR}$   | 100      | mA      |
| Drain Current (pulsed)<br>漏極電流-脉冲     | $I_{DRM}$  | 400      | mA      |

■ **THERMAL CHARACTERISTICS** 熱特性

| Characteristic 特性   | Symbol 符號       | Max 最大值   | Unit 單位                    |
|---|-----------------|---|----------------------------|
| Total Device Dissipation 總耗散功率<br>$T_A=25^\circ\text{C}$ 環境溫度為 $25^\circ\text{C}$<br>Derate above $25^\circ\text{C}$ 超過 $25^\circ\text{C}$ 遞減 | $P_D$           | 200<br>1.8  | mW<br>mW/ $^\circ\text{C}$ |
| Thermal Resistance Junction to Ambient 熱阻   | $R_{\theta JA}$ | 417   | $^\circ\text{C}/\text{W}$  |
| Junction and Storage Temperature<br>結溫和儲存溫度   | $T_J, T_{stg}$  | $150^\circ\text{C}, -55\text{to}+150^\circ\text{C}$ |                            |



# 桂林斯壯微電子有限責任公司

## Guilin Strong Micro-Electronics Co.,Ltd.

2SK3018

### ■DEVICE MARKING 打標

**2SK3018=KN**

### ■ELECTRICAL CHARACTERISTICS 電特性

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如無特殊說明，溫度為  $25^{\circ}\text{C}$ )

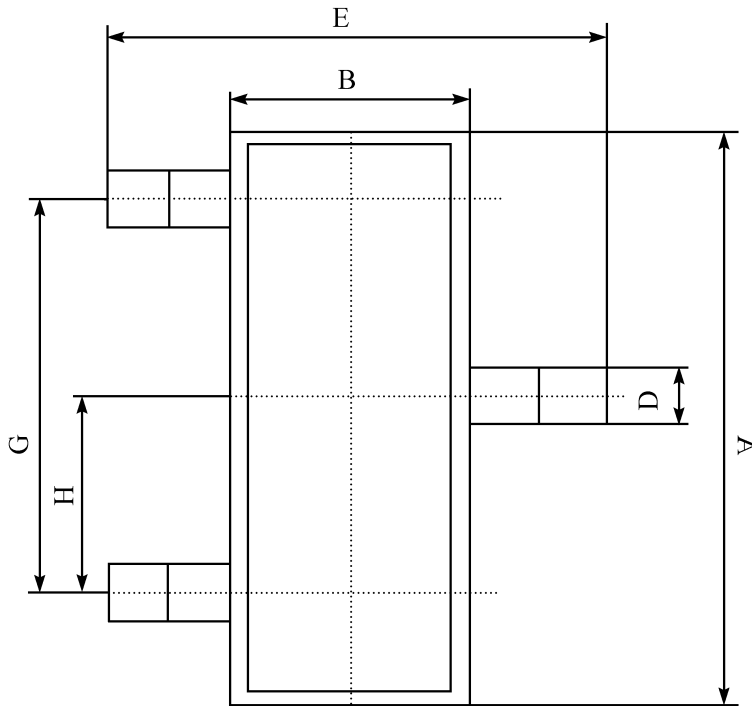
| Characteristic<br>特性參數   | Symbol<br>符號 | Min<br>最小值 | Typ<br>典型值 | Max<br>最大值    | Unit<br>單位    |
|--|--------------|------------|------------|---------------|---------------|
| Drain-Source Breakdown Voltage<br>漏極-源極擊穿電壓( $I_D=10\mu\text{A}, V_{GS}=0\text{V}$ )   | $BV_{DSS}$   | 35         | —          | —             | V             |
| Gate Threshold Voltage<br>柵極開啓電壓( $I_D=100\mu\text{A}, V_{GS}=V_{DS}$ )  | $V_{GS(th)}$ | 0.8        | —          | 2             | V             |
| Drain-Source On Voltage<br>漏極-源極導通電壓( $I_D=50\text{mA}, V_{GS}=5\text{V}$ )<br>( $I_D=400\text{mA}, V_{GS}=10\text{V}$ )                                 | $V_{DS(ON)}$ | —          | —          | 0.375<br>3.75 | V             |
| Diode Forward Voltage Drop<br>內附二極管正向壓降( $I_{SD}=200\text{mA}, V_{GS}=0\text{V}$ )   | $V_{SD}$     | —          | —          | 1.5           | V             |
| Zero Gate Voltage Drain Current<br>零柵壓漏極電流( $V_{GS}=0\text{V}, V_{DS}=BV_{DSS}$ )<br>( $V_{GS}=0\text{V}, V_{DS}=0.8BV_{DSS}, T_A=125^{\circ}\text{C}$ ) | $I_{DSS}$    | —          | —          | 1<br>500      | $\mu\text{A}$ |
| Gate Body Leakage<br>柵極漏電流( $V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$ )  | $I_{GSS}$    | —          | —          | $\pm 100$     | nA            |
| Static Drain-Source On-State Resistance<br>靜態漏源導通電阻( $I_D=50\text{mA}, V_{GS}=4.5\text{V}$ )<br>( $I_D=400\text{mA}, V_{GS}=10\text{V}$ )                | $R_{DS(ON)}$ | —          | —          | 8<br>7.5      | $\Omega$      |
| Input Capacitance 輸入電容<br>( $V_{GS}=0\text{V}, V_{DS}=25\text{V}, f=1\text{MHz}$ )   | $C_{ISS}$    | —          | —          | 50            | pF            |
| Common Source Output Capacitance<br>共源輸出電容( $V_{GS}=0\text{V}, V_{DS}=25\text{V}, f=1\text{MHz}$ )   | $C_{OSS}$    | —          | —          | 25            | pF            |
| Turn-ON Time 開啓時間<br>( $V_{DS}=30\text{V}, I_D=200\text{mA}, R_{GEN}=25\Omega$ )   | $t_{(on)}$   | —          | —          | 20            | ns            |
| Turn-OFF Time 關斷時間<br>( $V_{DS}=30\text{V}, I_D=200\text{mA}, R_{GEN}=25\Omega$ )  | $t_{(off)}$  | —          | —          | 40            | ns            |
| Reverse Recovery Time 反向恢復時間<br>( $I_{SD}=800\text{mA}, V_{GS}=0\text{V}$ )  | $t_{rr}$     | —          | 400        | —             | ns            |

1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.
3. Pulse Width≤300  $\mu\text{s}$ ; Duty Cycle≤2.0%.



2SK3018

■DIMENSION 外形封裝尺寸



| 序號 | 數值及公差     |
|----|-----------|
| A  | 2.90±0.10 |
| B  | 1.30±0.10 |
| C  | 1.00±0.10 |
| D  | 0.40±0.10 |
| E  | 2.40±0.20 |
| G  | 1.90±0.10 |
| H  | 0.95±0.05 |
| J  | 0.13±0.05 |
| K  | 0.00-0.10 |
| M  | ≥0.2      |
| N  | 0.60±0.10 |
| P  | 7±2°      |

