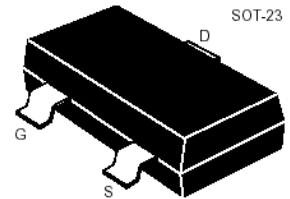




2SK3018

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 漏極-源極電壓	$BV_{DSS}$	35	V
Gate- Source Voltage 柵極-源極電壓	$V_{GS}$	$\pm 20$	V
Drain Current (continuous) 漏極電流-連續	$I_{DR}$	100	mA
Drain Current (pulsed) 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 $T_A=25^\circ\text{C}$ 環境溫度為 $25^\circ\text{C}$ Derate above $25^\circ\text{C}$ 超過 $25^\circ\text{C}$ 遞減	$P_D$	200 1.8	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature 結溫和儲存溫度	$T_J, T_{stg}$	$150^\circ\text{C}, -55\text{to}+150^\circ\text{C}$	

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**■DEVICE MARKING 打標**
**2SK3018=KN**
**■ELECTRICAL CHARACTERISTICS 電特性**

 (T<sub>A</sub>=25°C unless otherwise noted 如無特殊說明，溫度為 25°C)

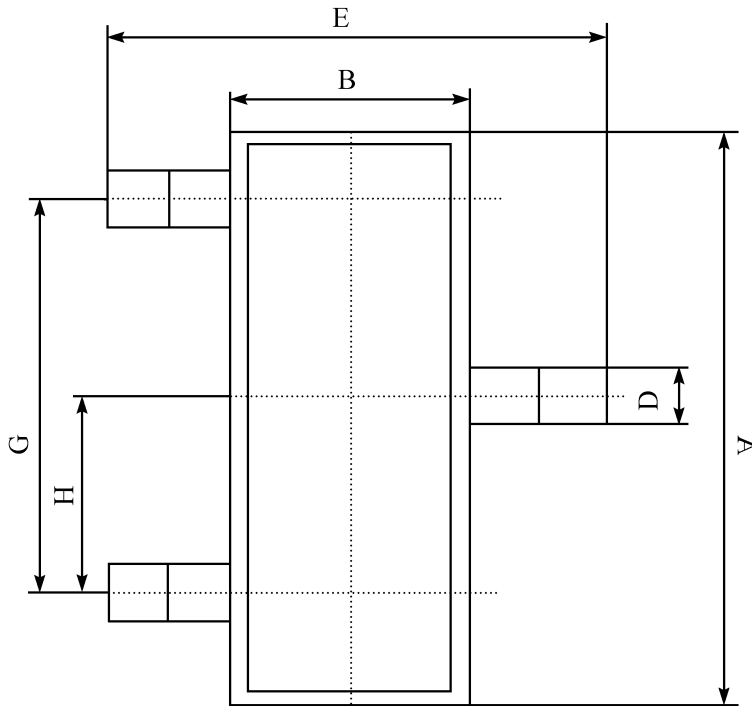
Characteristic 特性參數	Symbol 符號	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Drain-Source Breakdown Voltage 漏極-源極擊穿電壓(I <sub>D</sub> =10uA,V <sub>GS</sub> =0V)	BV <sub>DSS</sub>	35	—	—	V
Gate Threshold Voltage 柵極開啓電壓(I <sub>D</sub> =100uA,V <sub>GS</sub> =V <sub>DS</sub> )	V <sub>GS(th)</sub>	0.8	—	2	V
Drain-Source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

- FR-5=1.0×0.75×0.062in.
- Alumina=0.4×0.3×0.024in.99.5%alumina.
- Pulse Width≤300 μs; Duty Cycle≤2.0%.



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■DIMENSION 外形封装尺寸



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°

