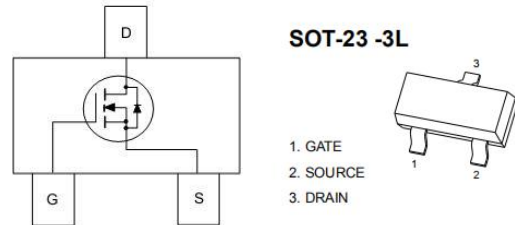


## FS2302

SOT-23-3L 場效應晶體管(SOT-23-3L 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	$BV_{DSS}$	20	V
Gate- Source Voltage 柵極-源極電壓	$V_{GS}$	$\pm 10$	V
Drain Current (continuous) 漏極電流-連續	$I_D$	4	A
Drain Current (pulsed) 漏極電流-脈沖	$I_{DM}$	16	A
Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 $25^\circ\text{C}$	PD	1200	mW
Junction 結溫	$T_J$	150	$^\circ\text{C}$
Storage Temperature 儲存溫度	$T_{stg}$	-55to+150	$^\circ\text{C}$

### ■ DEVICE MARKING 打標

**FS2302=A2**



## FS2302

### ■ ELECTRICAL CHARACTERISTICS 電特性

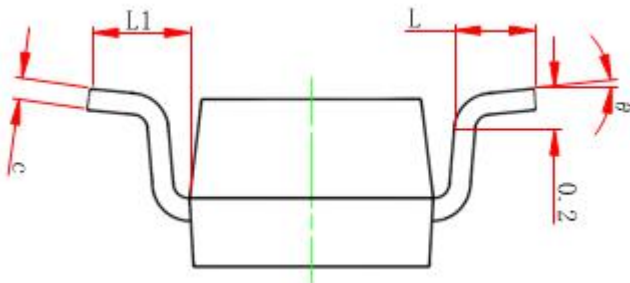
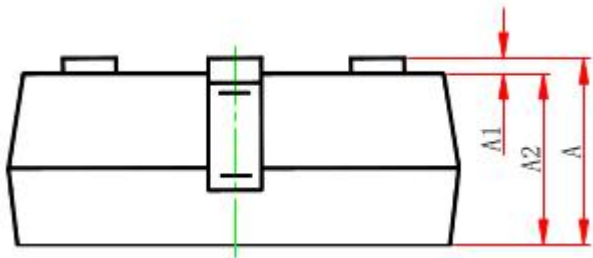
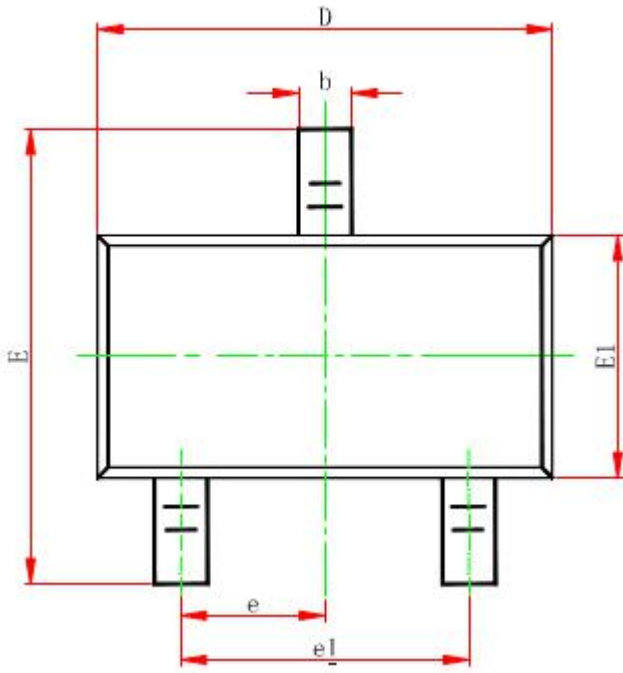
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如無特殊說明, 溫度為  $25^{\circ}\text{C}$ )

Characteristic 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( $I_D=250\mu\text{A}, V_{GS}=0\text{V}$ )	$BV_{DSS}$	20	22	—	V
Gate Threshold Voltage 柵極開啓電壓( $I_D=250\mu\text{A}, V_{GS}=V_{DS}$ )	$V_{GS(th)}$	0.5	0.75	1.5	V
Diode Forward Voltage Drop 內附二極管正向壓降( $I_S=0.75\text{A}, V_{GS}=0\text{V}$ )	$V_{SD}$	—	—	1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流( $V_{GS}=0\text{V}, V_{DS}=16\text{V}$ ) ( $V_{GS}=0\text{V}, V_{DS}=16\text{V}, T_A=55^{\circ}\text{C}$ )	$I_{DSS}$	—	—	1 10	$\mu\text{A}$
Gate Body Leakage 柵極漏電流( $V_{GS}=\pm 10\text{V}, V_{DS}=0\text{V}$ )	$I_{GSS}$	—	—	$\pm 100$	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻( $I_D=3.6\text{A}, V_{GS}=4.5\text{V}$ )	$R_{DS(ON)}$	—	30	35	$\text{m}\Omega$
Static Drain-Source On-State Resistance 靜態漏源導通電阻( $I_D=2\text{A}, V_{GS}=2.5\text{V}$ )	$R_{DS(ON)}$	—	40	50	$\text{m}\Omega$
Input Capacitance 輸入電容 ( $V_{GS}=0\text{V}, V_{DS}=10\text{V}, f=1\text{MHz}$ )	$C_{ISS}$	—	600	—	pF
Output Capacitance 輸出電容 ( $V_{GS}=0\text{V}, V_{DS}=10\text{V}, f=1\text{MHz}$ )	$C_{OSS}$	—	120	—	pF
Turn-ON Time 開啓時間 ( $V_{DS}=10\text{V}, I_D=3\text{A}, R_{GEN}=6\Omega$ )	$t_{(on)}$	—	8	—	ns
Turn-OFF Time 關斷時間 ( $V_{DS}=10\text{V}, I_D=3\text{A}, R_{GEN}=6\Omega$ )	$t_{(off)}$	—	60	—	ns

Pulse Width $\leq 300\mu\text{s}$ ; Duty Cycle $\leq 2.0\%$

**FS2302**

■ **DIMENSION** 外形封裝尺寸  
單位(UNIT): mm



代碼	范围(单位: mm)
A	1.050~1.250
A1	0.000~0.100
A2	1.050~1.150
b	0.300~0.500
c	0.100~0.200
D	2.820~3.020
E1	1.500~1.700
E	2.650~2.950
e	0.950(BSC)
e1	1.800~2.00
L	0.300~0.600
L1	0.600REF.
θ	0°~8°