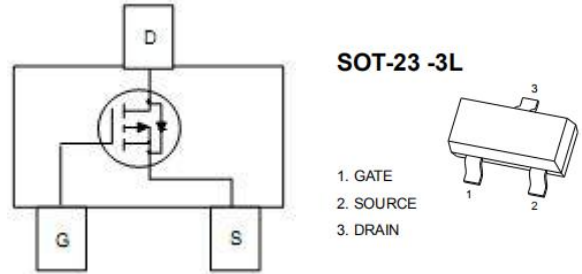


FS3401

SOT-23-3L 場效應晶體管(SOT-23-3L Field Effect Transistors)



P-Channel Enhancement-Mode MOS FETs

P 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} | -30 | V |
| Gate- Source Voltage 柵極-源極電壓 | V_{GS} | ± 12 | V |
| Drain Current (continuous) 漏極電流-連續 | I_D | -4.5 | A |
| Drain Current (pulsed) 漏極電流-脈沖 | I_{DM} | -20 | A |
| Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C | P_D | 1500 | 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

FS3401=X1FS 20



FS3401

■ ELECTRICAL CHARACTERISTICS 電特性

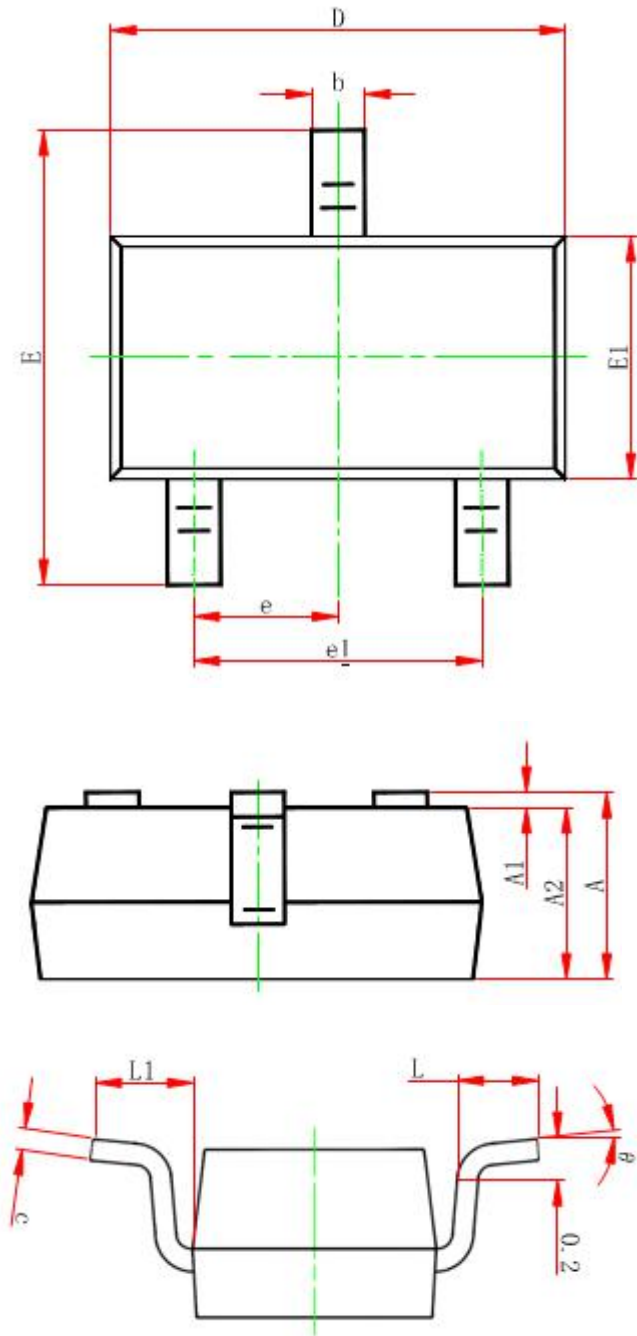
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明, 溫度為 25°C)

| 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($I_D = -250\mu\text{A}, V_{GS}=0\text{V}$) | BV_{DSS} | -30 | — | — | V |
| Gate Threshold Voltage 柵極開啓電壓($I_D = -250\mu\text{A}, V_{GS} = V_{DS}$) | $V_{GS(th)}$ | -0.6 | — | -2 | V |
| Diode Forward Voltage Drop 內附二極管正向壓降($I_S = -1\text{A}, V_{GS}=0\text{V}$) | V_{SD} | — | — | -1 | V |
| Zero Gate Voltage Drain Current 零柵壓漏極電流($V_{GS}=0\text{V}, V_{DS} = -24\text{V}$) ($V_{GS}=0\text{V}, V_{DS} = -24\text{V}, T_A=55^{\circ}\text{C}$) | I_{DSS} | — | — | -1 -5 | μA |
| Gate Body Leakage 柵極漏電流($V_{GS}=\pm 12\text{V}, V_{DS}=0\text{V}$) | I_{GSS} | — | — | ± 100 | nA |
| Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = -4.2\text{A}, V_{GS} = -10\text{V}$) | $R_{DS(ON)}$ | — | 40 | 46 | $\text{m}\Omega$ |
| Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = -2\text{A}, V_{GS} = -4.5\text{V}$) | $R_{DS(ON)}$ | — | 50 | 58 | $\text{m}\Omega$ |
| Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = -1\text{A}, V_{GS} = -2.5\text{V}$) | $R_{DS(ON)}$ | — | 80 | 85 | $\text{m}\Omega$ |
| Input Capacitance 輸入電容 ($V_{GS}=0\text{V}, V_{DS} = -15\text{V}, f=1\text{MHz}$) | C_{ISS} | — | 954 | — | pF |
| Output Capacitance 輸出電容 ($V_{GS}=0\text{V}, V_{DS} = -15\text{V}, f=1\text{MHz}$) | C_{OSS} | — | 115 | — | pF |
| Turn-ON Time 開啓時間 ($V_{DS} = -15\text{V}, V_{GS} = -10\text{V}, R_{GEN}=6\Omega$) | $t_{(on)}$ | — | 6 | — | ns |
| Turn-OFF Time 關斷時間 ($V_{DS} = -15\text{V}, V_{GS} = -10\text{V}, R_{GEN}=6\Omega$) | $t_{(off)}$ | — | 38 | — | ns |

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

FS3401

■ **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) |
| e 1 | 1.800~2.00 |
| L | 0.300~0.600 |
| L1 | 0.600REF. |
| θ | 0°~8° |