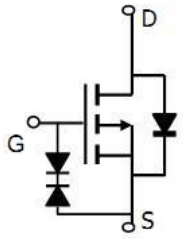
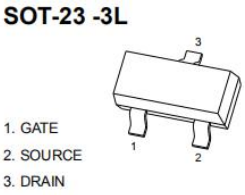
安徽富信半導體科技有限公司
ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD

FS3415

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





P-Channel Enhancement-Mode MOS FETs

Q-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	Rat 額定值	Unit 單位
Drain-Source Voltage 漏極-源極電壓	BV_{DSS}	-20	V
Gate- Source Voltage 栅極-源極電壓	V_{GS}	±10	V
Drain Current (continuous) 漏極電流-連續	I_D	-4.5	A
Drain Current (pulsed) 漏極電流-脉冲	I_{DM}	-18	A
Total Device Dissipation 總耗散功率 TA=25℃環境溫度爲 25℃	P_D	1300	mW
ESD Rating 靜電保護範圍	ESD	2000V HBM	
Junction 結溫	T_J	150	℃
Storage Temperature 儲存溫度	T_{stg}	-55to+150	℃

■DEVICE MARKING 打標

FS3415=AFHV21

FS3415

■ELECTRICAL CHARACTERISTICS 電特性

(T_A=25℃ unless otherwise noted 如無特殊說明，溫度爲 25℃)

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= -250uA,V_{GS}=0V)	BV_{DSS}	-20	-22	—	V
Gate Threshold Voltage 柵極開启電壓(I_D= -250uA,V_{GS}= V_{DS})	$V_{GS(th)}$	-0.3	-0.6	-1	V
Diode Forward Voltage Drop 内附二極管正向壓降(I_S= -1A,V_{GS}=0V)	V_{SD}	—	-0.8	-1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V_{GS}=0V, V_{DS}= -16V) (V_{GS}=0V, V_{DS}= -16V, T_A=55℃)	I_{DSS}	—	—	-1 -10	uA
Gate Body Leakage 柵極漏電流(V_{GS}=±8V, V_{DS}=0V)	I_{GSS}	—	—	±10	uA
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D= -4A,V_{GS}= -4.5V)	$R_{DS(ON)}$	—	30	40	mΩ
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D= -3A,V_{GS}= -2.5V)	$R_{DS(ON)}$	—	40	50	mΩ
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D= -2A,V_{GS}= -1.8V)	$R_{DS(ON)}$	—	50	68	mΩ
Input Capacitance 輸入電容 (V_{GS}=0V, V_{DS}= -10V,f=1MHz)	C_{ISS}	—	1100	—	pF
Output Capacitance 輸出電容 (V_{GS}=0V, V_{DS}= -10V,f=1MHz)	C_{OSS}	—	195	—	pF
Reverse Transfer Capacitance 回饋電容 (V_{GS}=0V, V_{DS}= -10V,f=1MHz)	C_{RSS}	—	105	—	pF
Total Gate Charge 柵極電荷密度 (V DS =-10V,I D =-4A,V GS =-4.5V)	Qg	—	13	—	nS
Forward Trans-conductance 正向傳輸導納 (V DS =-5V,I D =-4A)	g_{FS}	8	—	—	S
Turn-ON Time 开启時間 (V_{DS}= -10V, I_D= -2.8A, R_{GEN}=6Ω)	$t_{(on)}$	—	9.5	—	ns
Turn-OFF Time 关断時間 (V_{DS}= -10V, I_D= -2.8A, R_{GEN}=6Ω)	$t_{(off)}$	—	94	—	ns

Pulse Width≤300μs; Duty Cycle≤2.0%

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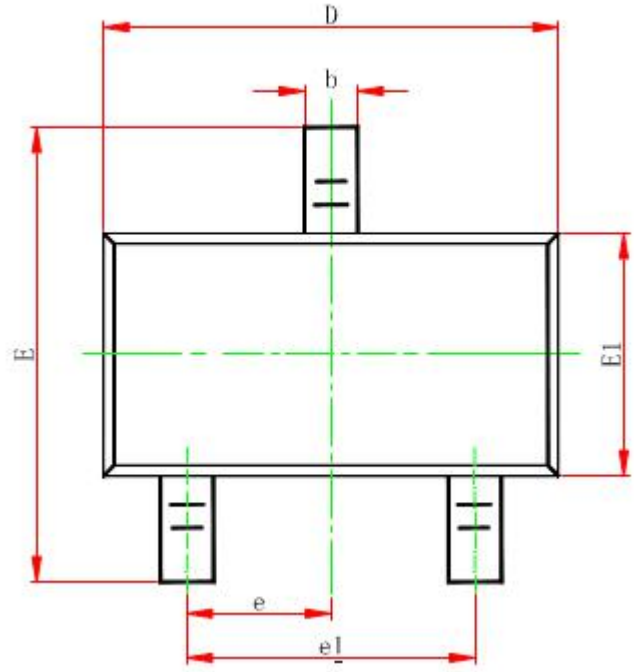
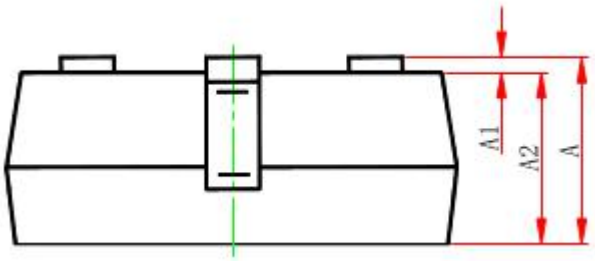
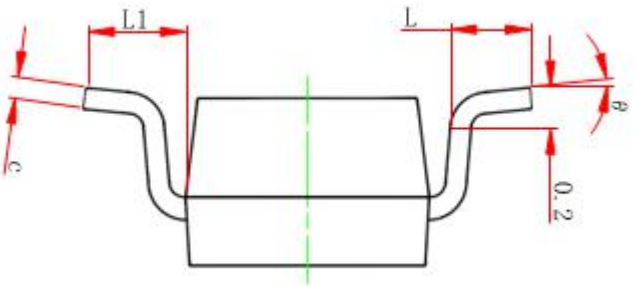
■ **DIMENSION** 外形封装尺寸

單位(UNIT)：mm







代码	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°