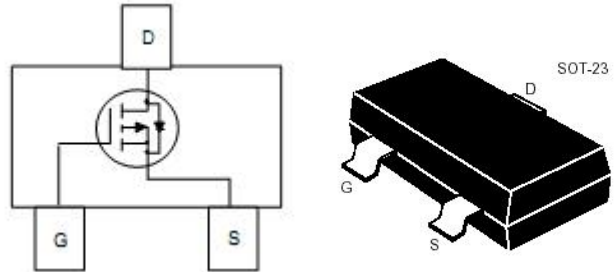


SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)



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}	-20	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	-3.7	A
Drain Current (pulsed) 漏極電流-脉冲	I_{DM}	-15	A
Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C	P_D	1100	mW
Junction 結溫	T_J	150	$^\circ\text{C}$
Storage Temperature 儲存溫度	T_{stg}	-55to+150	$^\circ\text{C}$

■ ELECTRICAL CHARACTERISTICS 電特性

 (T_A=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 _D = -250uA, V _{GS} =0V)	BV _{DSS}	-20	—	—	V
Gate Threshold Voltage 柵極開啓電壓(I _D = -250uA, V _{GS} = V _{DS})	V _{GS(th)}	-0.4	—	-1.2	V
Diode Forward Voltage Drop 內附二極管正向壓降(I _S = -1A, V _{GS} =0V)	V _{SD}	—	—	-1.2	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V _{GS} =0V, V _{DS} = -20V) (V _{GS} =0V, V _{DS} = -20V, T _A =70°C)	I _{DSS}	—	—	-1 -25	uA
Gate Body Leakage 柵極漏電流(V _{GS} =±12V, V _{DS} =0V)	I _{GSS}	—	—	±100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I _D = -3.7A, V _{GS} = -4.5V)	R _{DS(ON)}	—	50	65	mΩ
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I _D = -3.1A, V _{GS} = -2.5V)	R _{DS(ON)}	—	80	135	mΩ
Input Capacitance 輸入電容 (V _{GS} =0V, V _{DS} = -10V, f=1MHz)	C _{ISS}	—	600	—	pF
Output Capacitance 輸出電容 (V _{GS} =0V, V _{DS} = -10V, f=1MHz)	C _{OSS}	—	120	—	pF
Turn-ON Time 開啓時間 (V _{DS} = -10V, I _D = -3.7A, R _{GEN} =6Ω)	t _(on)	—	8	—	ns
Turn-OFF Time 關斷時間 (V _{DS} = -10V, I _D = -3.7A, R _{GEN} =6Ω)	t _(off)	—	60	—	ns

Pulse Width ≤ 300 μs; Duty Cycle ≤ 2.0%

■ TYPICAL CHARACTERISTIC CURVE

典型特性曲线

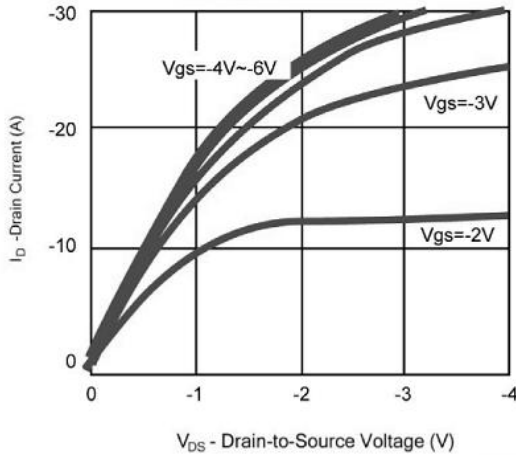


Figure 1: Output Characteristics

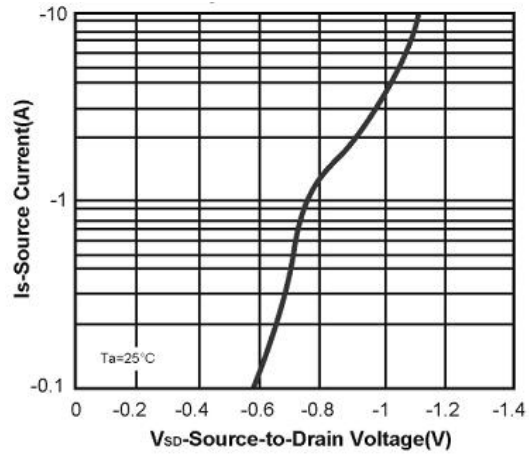


Figure 2: Body-Diode Characteristics

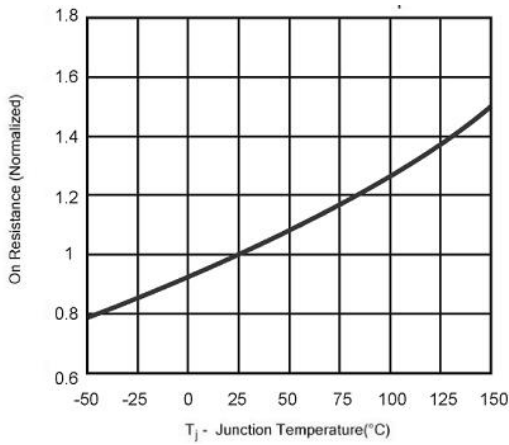


Figure 3: On-Resistance vs. Temperature

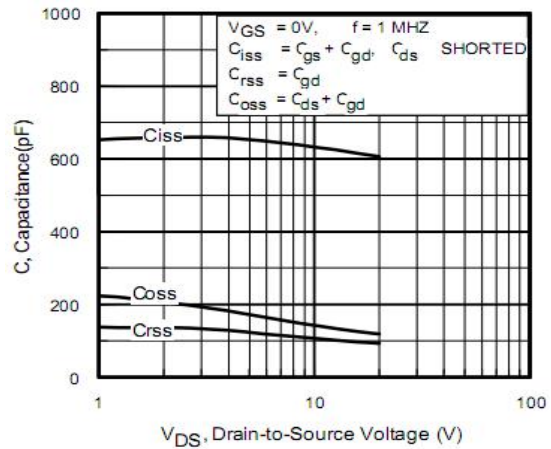


Figure 4: Capacitance vs. Drain-Source Voltage

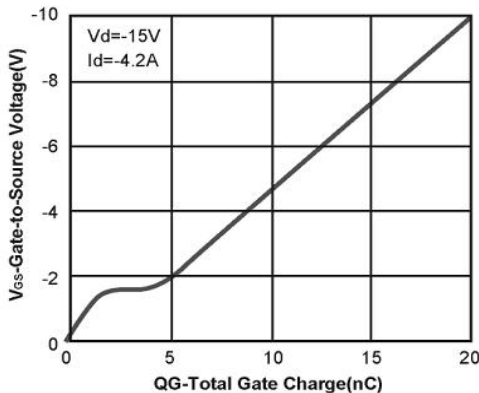


Figure 5: Gate-Charge Characteristics

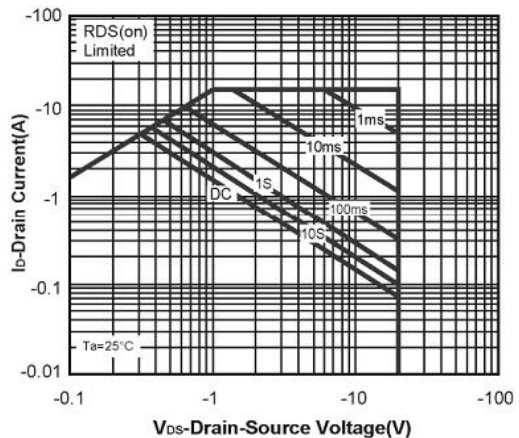
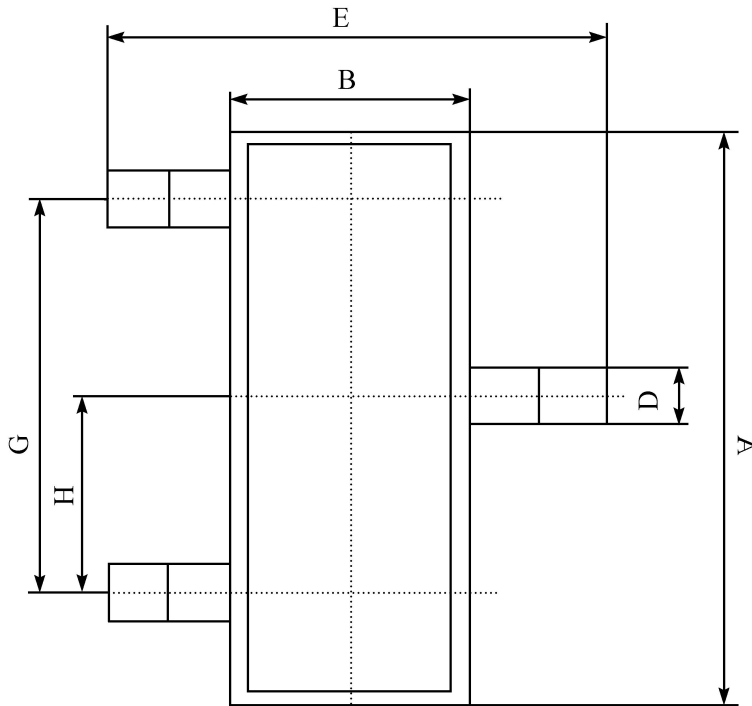


Figure 6: Safe Operating Area

■DIMENSION 外形封裝尺寸

單位(UNIT): mm



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°

