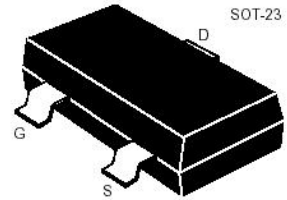
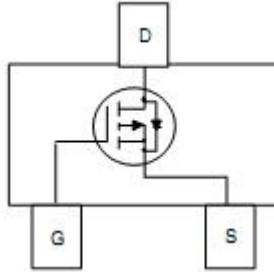


SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)


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	Rate 額定值	Unit 單位
Drain-Source Voltage 漏極-源極電壓	BV_{DSS}	-60	V
Gate- Source Voltage 柵極-源極電壓	V_{GS}	± 20	V
Drain Current (continuous) 漏極電流-連續	I_D	-3.5	A
Drain Current (pulsed) 漏極電流-脉冲	I_{DM}	-10	A
Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C	P_D	1400	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
GM6385=6385

■ 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}	-55	-60	—	V
Gate Threshold Voltage 柵極開啓電壓(I _D = -250uA, V _{GS} = V _{DS})	V _{GS(th)}	-1	—	-3	V
Diode Forward Voltage Drop 內附二極管正向壓降(I _S = -2A, 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} = -60V)	I _{DSS}	—	—	-1	uA
Gate Body Leakage 柵極漏電流(V _{GS} =±20V, V _{DS} =0V)	I _{GSS}	—	—	±100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I _D = -3A, V _{GS} = -10V)	R _{DS(ON)}	—	70	85	mΩ
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I _D = -2A, V _{GS} = -4.5V)	R _{DS(ON)}	—	80	120	mΩ
Input Capacitance 輸入電容 (V _{GS} =0V, V _{DS} = -15V, f=1MHz)	C _{ISS}	—	960	—	pF
Output Capacitance 輸出電容 (V _{GS} =0V, V _{DS} = -15V, f=1MHz)	C _{OSS}	—	100	—	pF
Reverse Transfer Capacitance 反向傳輸電容 (V _{GS} =0V, V _{DS} =-15V, f=1MHz)	C _{RSS}	—	33	—	pF
Total Gate Charge 總柵極電荷密度 (V _{DS} =-30V, I _D =-4A, V _{GS} =-10V)	Q _g	—	23	—	nC
Gate Source Charge 柵源電荷密度 (V _{DS} =-30V, I _D =-4A, V _{GS} =-10V)	Q _{gs}	—	5	—	nC
Gate Drain Charge 柵漏電荷密度 (V _{DS} =-30V, I _D =-4A, V _{GS} =-10V)	Q _{gd}	—	6	—	nC
Turn-On Delay Time 開啓延遲時間 (V _{DS} =-30V, I _D =-1A, R _{GEN} =3Ω, V _{GS} =-10V)	t _{d(on)}	—	38	—	ns
Turn-On Rise Time 開啓上升時間 (V _{DS} =-30V, I _D =-1A, R _{GEN} =3Ω, V _{GS} =-10V)	t _r	—	18	—	ns
Turn-Off Delay Time 關斷延遲時間 (V _{DS} =-30V, I _D =-1A, R _{GEN} =3Ω, V _{GS} =-10V)	t _{d(off)}	—	51	—	ns
Turn-On Fall Time 開啓下降時間 (V _{DS} =-30V, I _D =-1A, R _{GEN} =3Ω, V _{GS} =-10V)	t _f	—	6	—	ns

Pulse Width≤300 μs; Duty Cycle≤2.0%



■ TYPICAL CHARACTERISTIC CURVE

典型特性曲线

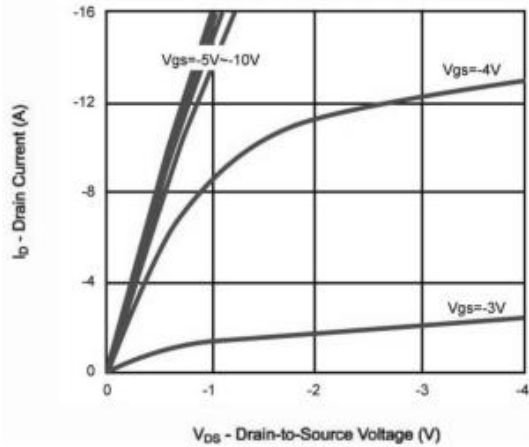


Figure 1: Output Characteristics

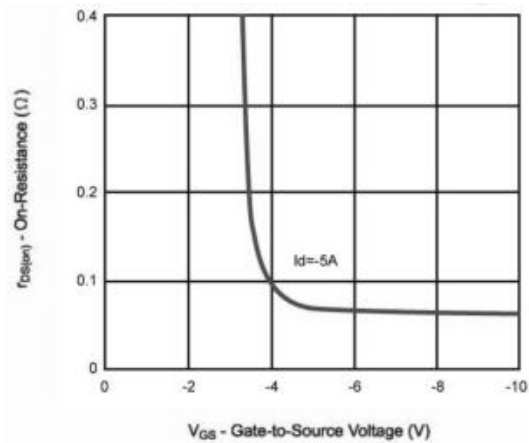


Figure 2: Rdson- VGS

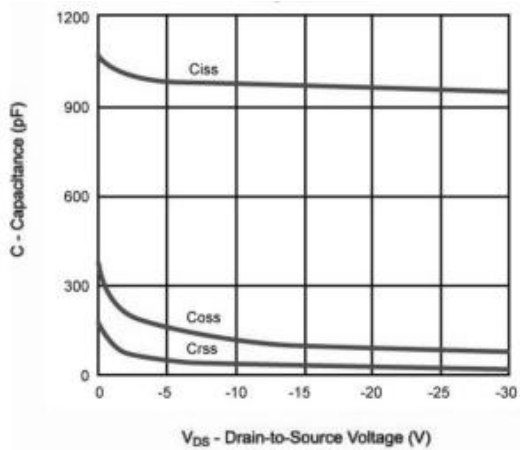


Figure 3: Capacitance

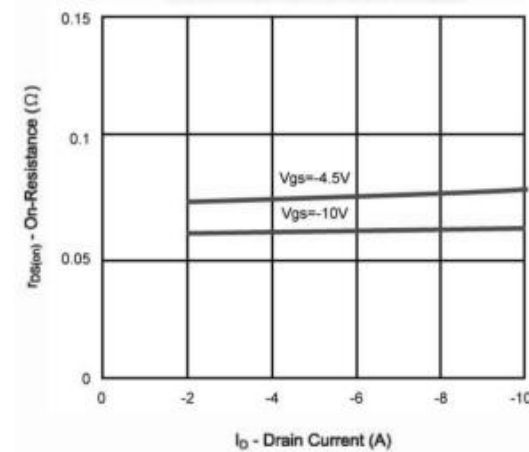


Figure 4: Rdson- ID

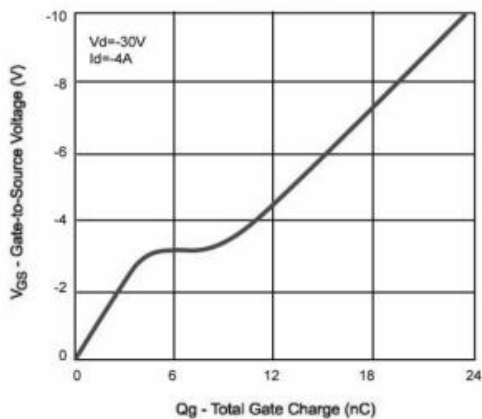


Figure 5: Gate-Charge Characteristics

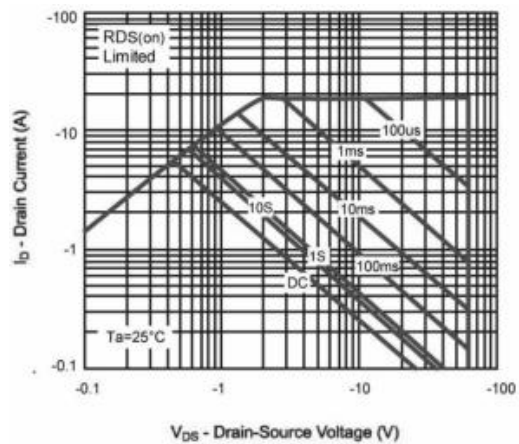


Figure 6: Safe Operating Area