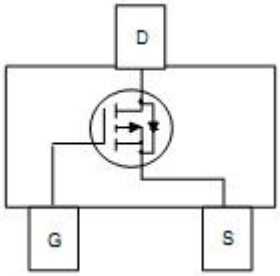
桂林斯壯桂微電子有限責任公司
Guilin Strong Micro-Electronics Co.,Ltd.

GMS3401A

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



P-Channel Enhancement-Mode MOS FETs

P 溝道增強型 MOS 場效應管

■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}	-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	-3.0	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℃環境溫度爲 25℃	P_D	1200	mW
Junction 結溫	T_J	150	℃
Solder Temperature/Solder Time 焊接溫度/焊接時間	T/t	260/10	℃/S
Storage Temperature 儲存溫度	T_{stg}	-55to+150	℃

■DEVICE MARKING 打標

GMS3401A=SX1

■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}	-30	—	—	V
Gate Threshold Voltage 柵極開启電壓(I_D = -250uA,V_{GS}= V_{DS})	$V_{GS(th)}$	-0.6	—	-1.4	V
Diode Forward Voltage Drop 内附二極管正向壓降(I_S= -1A,V_{GS}=0V)	V_{SD}	—	—	-1	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V_{GS}=0V, V_{DS}= -24V) (V_{GS}=0V, V_{DS}= -24V, T_A=55℃)	I_{DSS}	—	—	-1 -5	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 静态漏源導通電阻(I_D= -3A,V_{GS}= -10V)	$R_{DS(ON)}$	—	83	95	mΩ
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D= -2A,V_{GS}= -4.5V)	$R_{DS(ON)}$	—	110	130	mΩ
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D= -1A,V_{GS}= -2.5V)	$R_{DS(ON)}$	—	200	220	mΩ
Input Capacitance 輸入電容 (V_{GS}=0V, V_{DS}= -15V,f=1MHz)	C_{ISS}	—	350	—	pF
Output Capacitance 輸出電容 (V_{GS}=0V, V_{DS}= -15V,f=1MHz)	C_{OSS}	—	60	—	pF
Reverse Transfer Capacitance 回饋電容 (V_{GS}=0V, V_{DS}= -15V,f=1MHz)	C_{RSS}	—	40	—	pF
Turn-ON Time 开启時間 (V_{DS}= -15V, V_{GS}= -10V, R_{GEN}=6Ω)	$t_{(on)}$	—	5	—	ns
Turn-OFF Time 关断時間 (V_{DS}= -15V, V_{GS}= -10V, R_{GEN}=6Ω)	$t_{(off)}$	—	35	—	ns

Pulse Width≤300 μs; Duty Cycle≤2.0%

■TYPICAL CHARACTERISTIC CURVE 典型特性曲线

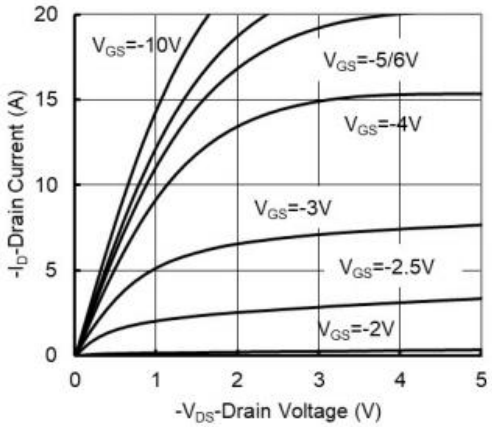


Figure 1: Output Characteristics

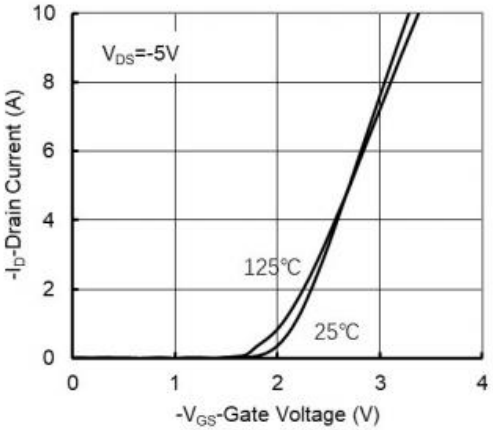


Figure 2:Transfer Characteristics

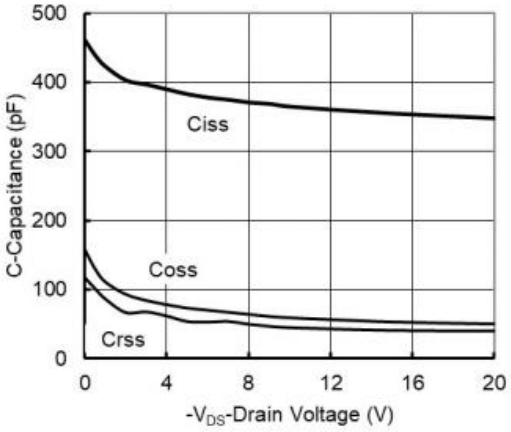


Figure 3: Capacitance

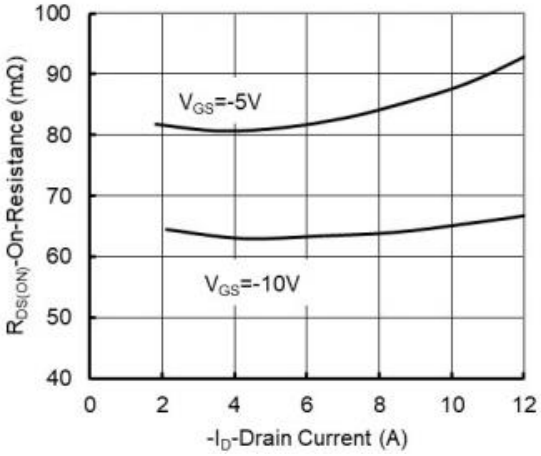


Figure 4: Rds(on)- Drain Current

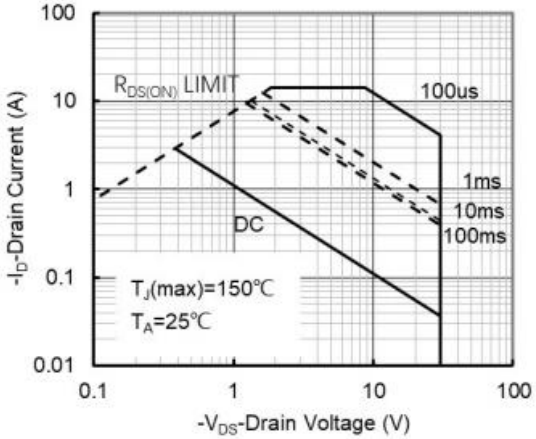


Figure 5: Safe Operation Area

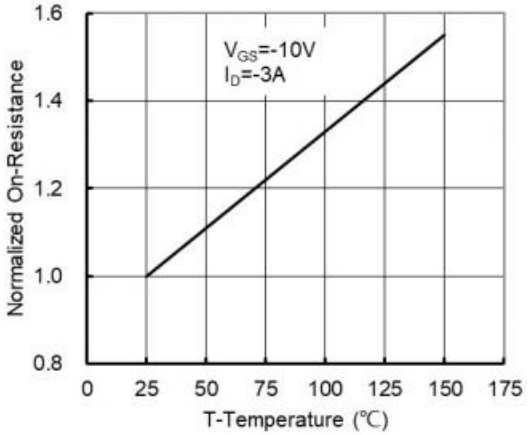


Figure 6: Rds(on)- Junction Temperature