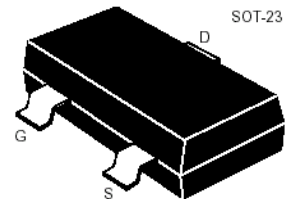




GMS2301

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}	± 8	V
Drain Current (continuous) 漏極電流-連續	I_D	-2.3	A
Drain Current (pulsed) 漏極電流-脉冲	I_{DM}	-10	A
Total Device Dissipation 總耗散功率 $T_A=25^{\circ}C$ 環境溫度為 $25^{\circ}C$	P_D	450	mW
Junction 結溫	T_J	150	$^{\circ}C$
Storage Temperature 儲存溫度	T_{stg}	-55to+150	$^{\circ}C$

■DEVICE MARKING 打標

GMS2301=A1



GMS2301

■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)

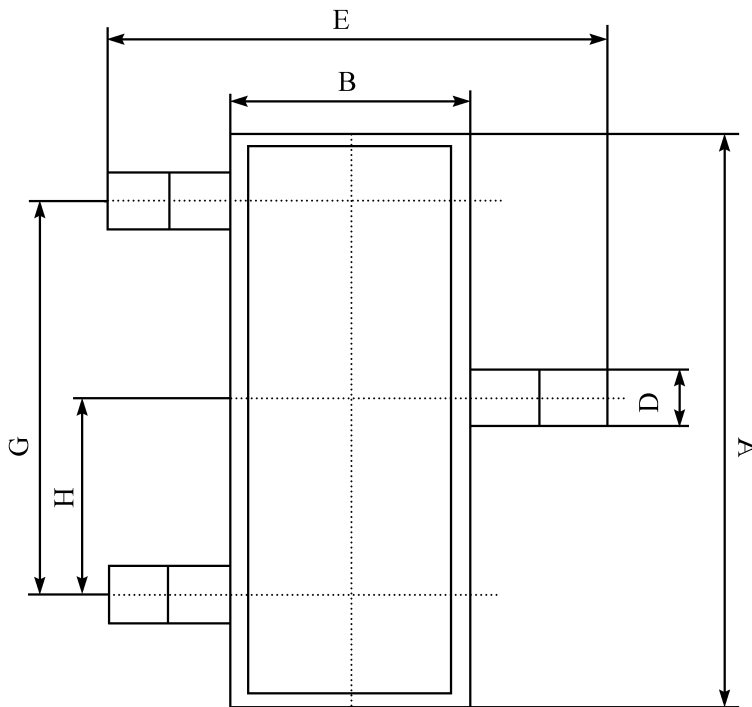
Characteristic 特性參數	Symbol 符號	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Drain-Source Breakdown Voltage 漏極-源極擊穿電壓($I_D = -250\mu\text{A}, V_{GS}=0\text{V}$)	BV_{DSS}	-20	—	—	V
Gate Threshold Voltage 柵極開啓電壓($I_D = -250\mu\text{A}, V_{GS}=V_{DS}$)	$V_{GS(th)}$	-0.5	—	-1.5	V
Drain-Source On Voltage 漏極-源極導通電壓($I_D = -50\text{mA}, V_{GS}= -5\text{V}$) ($I_D = -500\text{mA}, V_{GS}= -10\text{V}$)	$V_{DS(ON)}$	—	—	-0.375 -3.75	V
Diode Forward Voltage Drop 內附二極管正向壓降($I_S = -0.75\text{A}, V_{GS}=0\text{V}$)	V_{SD}	—	—	-1.2	V
Zero Gate Voltage Drain Current 零柵壓漏極電流($V_{GS}=0\text{V}, V_{DS}= -16\text{V}$) ($V_{GS}=0\text{V}, V_{DS}= -16\text{V}, T_A=55^{\circ}\text{C}$)	I_{DSS}	—	—	-1 -10	μA
Gate Body Leakage 柵極漏電流($V_{GS}=\pm 8\text{V}, V_{DS}=0\text{V}$)	I_{GSS}	—	—	± 100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D=2.6\text{A}, V_{GS}=4.5\text{V}$) ($I_D=1\text{A}, V_{GS}=2.5\text{V}$)	$R_{DS(ON)}$	—	—	0.15 0.22	Ω
Input Capacitance 輸入電容 ($V_{GS}=0\text{V}, V_{DS}= -6\text{V}, f=1\text{MHz}$)	C_{ISS}	—	—	880	pF
Common Source Output Capacitance 共源輸出電容($V_{GS}=0\text{V}, V_{DS}= -6\text{V}, f=1\text{MHz}$)	C_{OSS}	—	—	270	pF
Turn-ON Time 開啓時間 ($V_{DS}= -6\text{V}, I_D= -1\text{A}, R_{GEN}=6\Omega$)	$t_{(on)}$	—	—	20	ns
Turn-OFF Time 關斷時間 ($V_{DS}= -6\text{V}, I_D= -1\text{A}, R_{GEN}=6\Omega$)	$t_{(off)}$	—	—	65	ns

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



GMS2301

■DIMENSION 外形封裝尺寸



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	$7 \pm 2^\circ$

