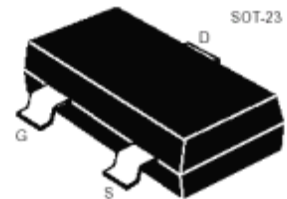




GM7002

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



**N-Channel Enhancement-Mode MOS FETs**

**N 沟道增強型 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	$BV_{DSS}$	60	V
Gate- Source Voltage 柵極-源極電壓	$V_{GS}$	$\pm 20$	V
Drain Current-continuous 漏極電流-連續	$I_{DR}$	115	mA
Drain Current-pulsed 漏極電流-脉冲	$I_{DRM}$	800	mA

**■THERMAL CHARACTERISTICS 熱特性**

Characteristic 特性	Symbol 符號	Max 最大值	Unit 單位
Total Device Dissipation 總耗散功率 $T_A=25^{\circ}C$ 環境溫度為 $25^{\circ}C$ Derate above $25^{\circ}C$ 超過 $25^{\circ}C$ 遞減	PD	225 1.8	mW mW/ $^{\circ}C$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction and Storage Temperature 結溫和儲存溫度	$T_J, T_{stg}$	$150^{\circ}C, -55to+150^{\circ}C$	



# 桂林斯壯微電子有限責任公司

## Guilin Strong Micro-Electronics Co.,Ltd.

GM7002

### ■DEVICE MARKING 打標

GM7002=7002

### ■ELECTRICAL CHARACTERISTICS 電特性

(T<sub>A</sub>=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 <sub>D</sub> =250uA, V <sub>GS</sub> =0V)	BV <sub>DSS</sub>	60	—	—	V
Gate Threshold Voltage 柵極開啓電壓(I <sub>D</sub> =250uA, V <sub>GS</sub> =V <sub>DS</sub> )	V <sub>GS(th)</sub>	1.0	—	2.5	V
Drain-Source On Voltage 漏極-源極導通電壓(I <sub>D</sub> =50mA, V <sub>GS</sub> =5V) (I <sub>D</sub> =500mA, V <sub>GS</sub> =10V)	V <sub>DS(ON)</sub>	—	—	0.375 3.75	V
Diode Forward Voltage Drop 內附二極管正向壓降(I <sub>SD</sub> =200mA, V <sub>GS</sub> =0V)	V <sub>SD</sub>	—	—	1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V <sub>GS</sub> =0V, V <sub>DS</sub> =BV <sub>DSS</sub> ) (V <sub>GS</sub> =0V, V <sub>DS</sub> =0.8BV <sub>DSS</sub> , T <sub>A</sub> =125°C)	I <sub>DSS</sub>	—	—	1 500	uA
Gate Body Leakage 柵極漏電流(V <sub>GS</sub> =±20V, V <sub>DS</sub> =0V)	I <sub>GSS</sub>	—	—	±100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻(I <sub>D</sub> =50mA, V <sub>GS</sub> =5V) (I <sub>D</sub> =500mA, V <sub>GS</sub> =10V)	R <sub>DS(ON)</sub>	—	—	7.5 7.5	Ω
Input Capacitance 輸入電容 (V <sub>GS</sub> =0V, V <sub>DS</sub> =25V, f=1MHz)	C <sub>ISS</sub>	—	—	50	pF
Common Source Output Capacitance 共源輸出電容(V <sub>GS</sub> =0V, V <sub>DS</sub> =25V, f=1MHz)	C <sub>OSS</sub>	—	—	25	pF
Turn-ON Time 開啓時間 (V <sub>DS</sub> =30V, I <sub>D</sub> =200mA, R <sub>GEN</sub> =25Ω)	t <sub>(on)</sub>	—	—	20	ns
Turn-OFF Time 關斷時間 (V <sub>DS</sub> =30V, I <sub>D</sub> =200mA, R <sub>GEN</sub> =25Ω)	t <sub>(off)</sub>	—	—	40	ns
Reverse Recovery Time 反向恢復時間 (I <sub>SD</sub> =800mA, V <sub>GS</sub> =0V)	t <sub>rr</sub>	—	400	—	ns

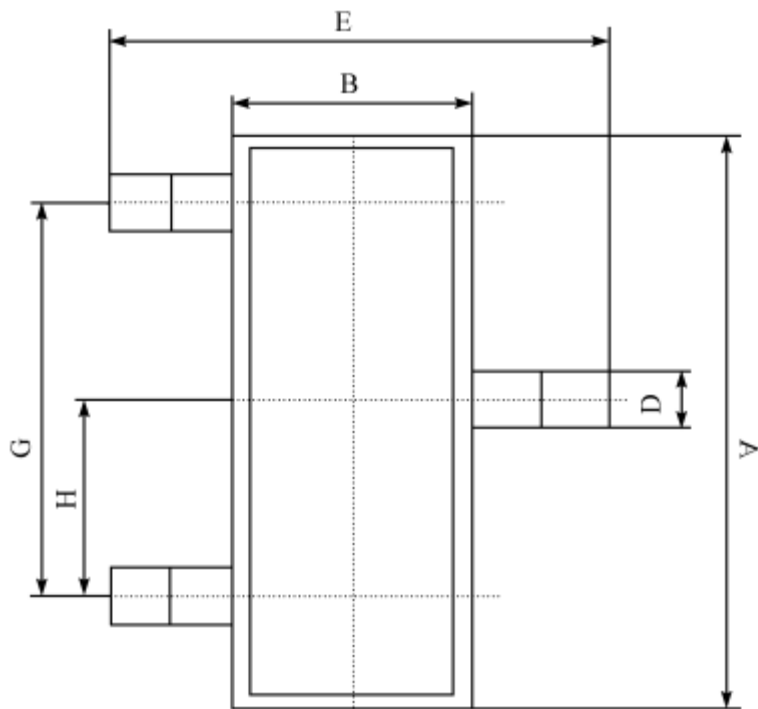
1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.
3. Pulse Width≤300 μs; Duty Cycle≤2.0%.



GM7002

■DIMENSION 外形封裝尺寸

單位(UNIT): mm



序號	數值及公差
A	$2.90 \pm 0.10$
B	$1.30 \pm 0.10$
C	$1.00 \pm 0.10$
D	$0.40 \pm 0.10$
E	$2.40 \pm 0.20$
G	$1.90 \pm 0.10$
H	$0.95 \pm 0.05$
J	$0.13 \pm 0.05$
K	$0.00-0.10$
M	$\geq 0.2$
N	$0.60 \pm 0.10$
P	$7 \pm 2^\circ$

