



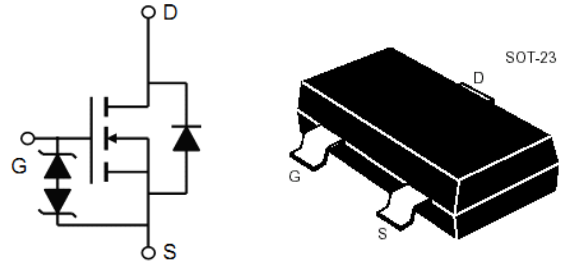
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Y S M I C R O

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GMN2021

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



N-Channel Enhancement-Mode MOS FET With ESD

N 溝道增強型帶靜電保護 MOS 場效應管

■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}	± 6	V
Drain Current (continuous) 漏極電流-連續	I_D	0.89	A
Drain Current (pulsed) 漏極電流-脉冲	I_{DM}	1.4	A
Total Device Dissipation 總耗散功率 $T_A=25^\circ\text{C}$ 環境溫度為 25°C	P_D	370	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

GMN2021=A21N



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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($I_D = 250\mu\text{A}, V_{GS} = V_{DS}$)	$V_{GS(th)}$	0.45	—	0.85	V
Diode Forward Voltage Drop 內附二極管正向壓降($I_S=0.35\text{A}, V_{GS}=0\text{V}$)	V_{SD}	—	—	1.1	V
Zero Gate Voltage Drain Current 零柵壓漏極電流($V_{GS}=0\text{V}, V_{DS} = 16\text{V}$)	I_{DSS}	—	—	100	nA
Gate Body Leakage 柵極漏電流($V_{GS}=5\text{V}, V_{DS}=0\text{V}$)	I_{GSS}	—	—	5	μA
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D=0.55\text{A}, V_{GS}= 4.5\text{V}$)	$R_{DS(ON)}$	—	220	260	$\text{m}\Omega$
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = 0.45\text{A}, V_{GS} = 2.5\text{V}$)	$R_{DS(ON)}$	—	260	310	$\text{m}\Omega$
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = 0.35\text{A}, V_{GS} = 1.8\text{V}$)	$R_{DS(ON)}$	—	320	380	$\text{m}\Omega$
Input Capacitance 輸入電容 ($V_{GS}=0\text{V}, V_{DS} = 10\text{V}, f=1\text{MHz}$)	C_{ISS}	—	50	—	pF
Output Capacitance 輸出電容 ($V_{GS}=0\text{V}, V_{DS} = 10\text{V}, f=1\text{MHz}$)	C_{OSS}	—	13	—	pF
Turn-ON Time 開啓時間 ($V_{DS} = 10\text{V}, V_{GS} = 4.5\text{V}, R_{GEN}=6\Omega$)	$t_{(on)}$	—	22	—	ns
Turn-OFF Time 關斷時間 ($V_{DS} = 10\text{V}, V_{GS} = 4.5\text{V}, R_{GEN}=6\Omega$)	$t_{(off)}$	—	700	—	ns

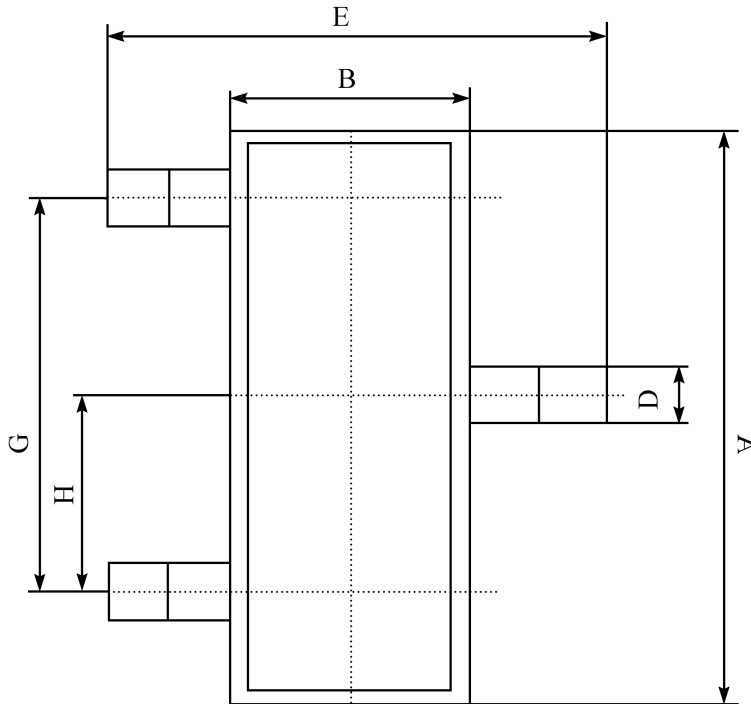
Pulse Width $\leq 300\mu\text{s}$; Duty Cycle $\leq 2.0\%$



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■DIMENSION 外形封装尺寸

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°

