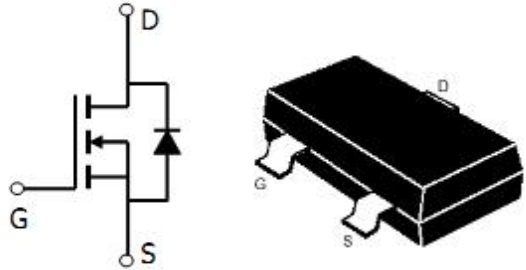




GM3100

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



N-Channel Enhancement-Mode MOS FETs

N 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}	± 20	V
Drain Current (continuous) 漏極電流-連續	I_D	8	A
Drain Current (pulsed) 漏極電流-脈沖	I_{DM}	20	A
Total Device Dissipation 總耗散功率 $T_A=25^{\circ}C$ 環境溫度為 $25^{\circ}C$	P_D	1400	mW
Junction 結溫	T_J	150	$^{\circ}C$
Solder Temperature/Solder Time 焊接溫度/焊接時間	T/t	260/10	$^{\circ}C/S$
Storage Temperature 儲存溫度	T_{stg}	-55to+150	$^{\circ}C$

■DEVICE MARKING 打標

GM3100=3100

GM3100

■ELECTRICAL CHARACTERISTICS 電特性

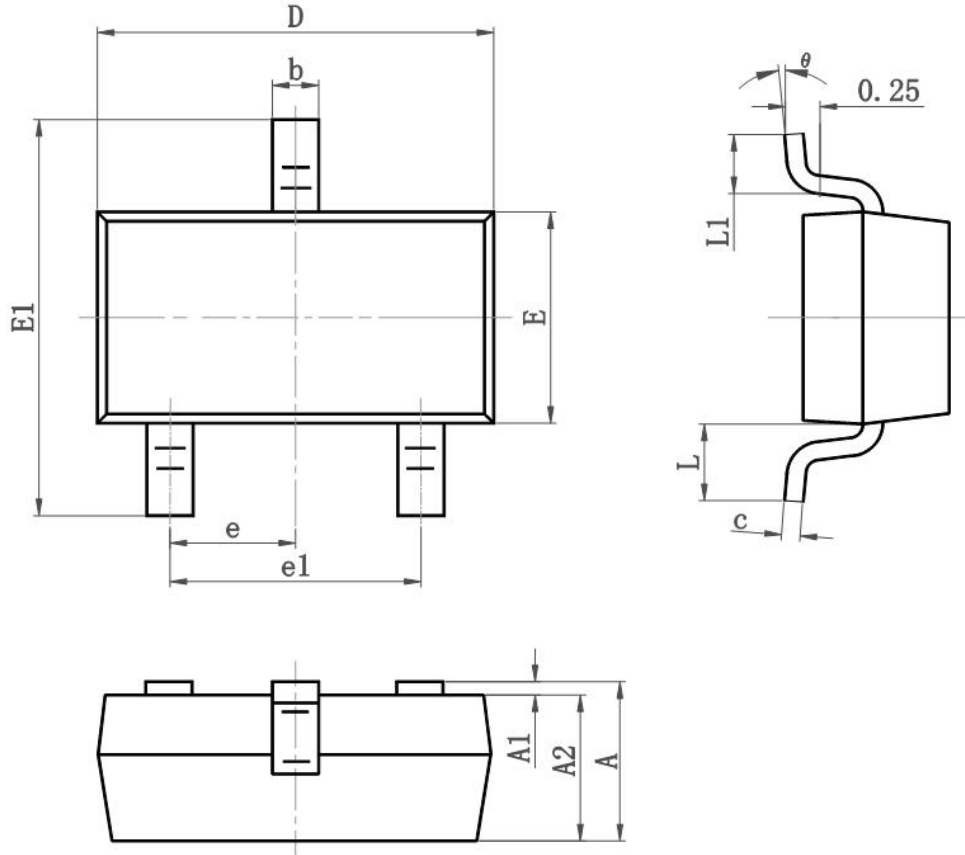
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明，溫度為 25°C)

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}	30	—	—	V
Gate Threshold Voltage 柵極開啓電壓($I_D = 250\mu\text{A}, V_{GS} = V_{DS}$)	$V_{GS(th)}$	1	—	2	V
Diode Forward Voltage Drop 內附二極管正向壓降($I_S=1\text{A}, V_{GS}=0\text{V}$)	V_{SD}	—	—	1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流($V_{GS}=0\text{V}, V_{DS} = 24\text{V}$)	I_{DSS}	—	—	1	μA
Gate Body Leakage 柵極漏電流($V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$)	I_{GSS}	—	—	± 100	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = 5\text{A}, V_{GS} = 10\text{V}$)	$R_{DS(ON)}$	—	12	14	$\text{m}\Omega$
Static Drain-Source On-State Resistance 靜態漏源導通電阻($I_D = 3.5\text{A}, V_{GS} = 4.5\text{V}$)	$R_{DS(ON)}$	—	14	16	$\text{m}\Omega$
Input Capacitance 輸入電容 ($V_{GS}=0\text{V}, V_{DS} = 10\text{V}, f=1\text{MHz}$)	C_{ISS}	—	600	—	pF
Output Capacitance 輸出電容 ($V_{GS}=0\text{V}, V_{DS} = 10\text{V}, f=1\text{MHz}$)	C_{OSS}	—	120	—	pF
Turn-ON Time 開啓時間 ($V_{DS} = 10\text{V}, I_D = 3\text{A}, R_{GEN}=6\Omega$)	$t_{(on)}$	—	8	—	ns
Turn-OFF Time 關斷時間 ($V_{DS} = 10\text{V}, I_D = 3\text{A}, R_{GEN}=6\Omega$)	$t_{(off)}$	—	60	—	ns

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

GM3100

■DIMENSION 外形封裝尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.500	1.700	0.059	0.067
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	6°