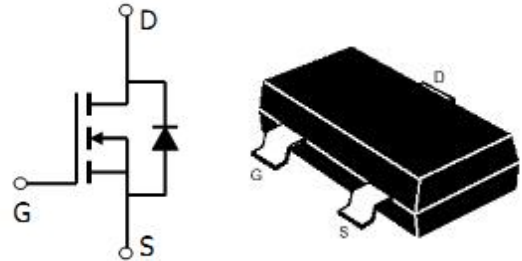




GM6430

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	$BV_{DSS}$	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	$I_{DR}$	4	A
Drain Current-pulsed 漏極電流-脈沖	$I_{DRM}$	8	A

**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	1200 3.8	mW mW/ $^{\circ}C$
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	150	$^{\circ}C/W$
Junction and Storage Temperature 結溫和儲存溫度	$T_J, T_{stg}$	$150^{\circ}C, -55to+150^{\circ}C$	

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■DEVICE MARKING 打標

GM6430=6430

■ELECTRICAL CHARACTERISTICS 電特性

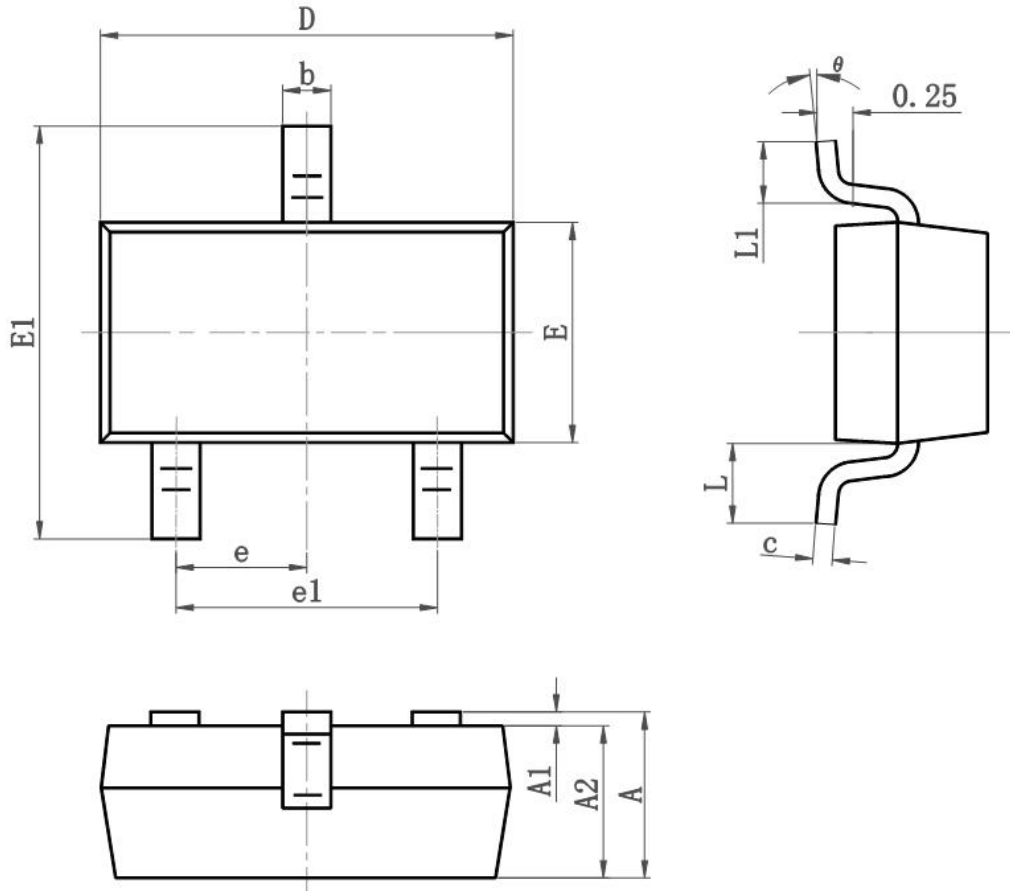
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如無特殊說明，溫度為  $25^{\circ}\text{C}$ )

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( $I_D=250\mu\text{A}, V_{GS}=0\text{V}$ )	$BV_{DSS}$	60	—	—	V
Gate Threshold Voltage 柵極開啓電壓( $I_D=250\mu\text{A}, V_{GS}=V_{DS}$ )	$V_{GS(th)}$	1	—	3	V
Diode Forward Voltage Drop 內附二極管正向壓降( $I_{SD}=1\text{A}, V_{GS}=0\text{V}$ )	$V_{SD}$	—	—	1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流( $V_{GS}=0\text{V}, V_{DS}=60\text{V}$ )	$I_{DSS}$	—	—	1	$\mu\text{A}$
Gate Body Leakage 柵極漏電流( $V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$ )	$I_{GSS}$	—	—	$\pm 100$	nA
Static Drain-Source On-State Resistance 靜態漏源導通電阻( $I_D=4\text{A}, V_{GS}=10\text{V}$ ) ( $I_D=3\text{A}, V_{GS}=4.5\text{V}$ )	$R_{DS(ON)}$	—	30 36	36 43	$\text{m}\Omega$
Input Capacitance 輸入電容 ( $V_{GS}=0\text{V}, V_{DS}=25\text{V}, f=1\text{MHz}$ )	$C_{ISS}$	—	—	950	pF
Common Source Output Capacitance 共源輸出電容( $V_{GS}=0\text{V}, V_{DS}=25\text{V}, f=1\text{MHz}$ )	$C_{OSS}$	—	—	325	pF
Turn-ON Time 開啓時間 ( $V_{DS}=30\text{V}, I_D=200\text{mA}, R_{GEN}=25\Omega$ )	$t_{(on)}$	—	—	50	ns
Turn-OFF Time 關斷時間 ( $V_{DS}=30\text{V}, I_D=200\text{mA}, R_{GEN}=25\Omega$ )	$t_{(off)}$	—	—	90	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  $\mu\text{s}$ ; Duty Cycle≤2.0%.

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■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	2.500	2.800	0.098	0.110
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
$\theta$	0°	8°	0°	6°