

FS431M

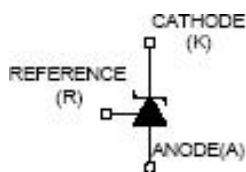
SOT-23

1.Reference
2.Cathode
3.Anode



■ DESCRIPTION&SYMBOL 功能和符號

輸出電壓從基準電壓到 36 伏可調的穩壓二極管



■ MAXIMUM RATINGS 最大額定值

Characteristic 特性參數	Symbol 符號	Rating 額定值	Unit 單位
Cathode to Anode Voltage 陰極到陽極電壓	V_{KA}	37	V
Cathode Current Range(Continuous)	I_{KA}	-100 ~ +150	mA
Reference Input Current Range 基準電流	I_{ref}	0.05 ~ 10	mA
Power Dissipation 耗散功率	PD	200	mW
Operating Temperature 工作溫度	T_{opr}	-40 ~ 150	°C
Storage Temperature 儲存溫度	T_{stg}	-65 ~ +150	°C

■ DEVICE MARKING 打標

FS431M=431



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■ ELECTRICAL CHARACTERISTICS 電特性

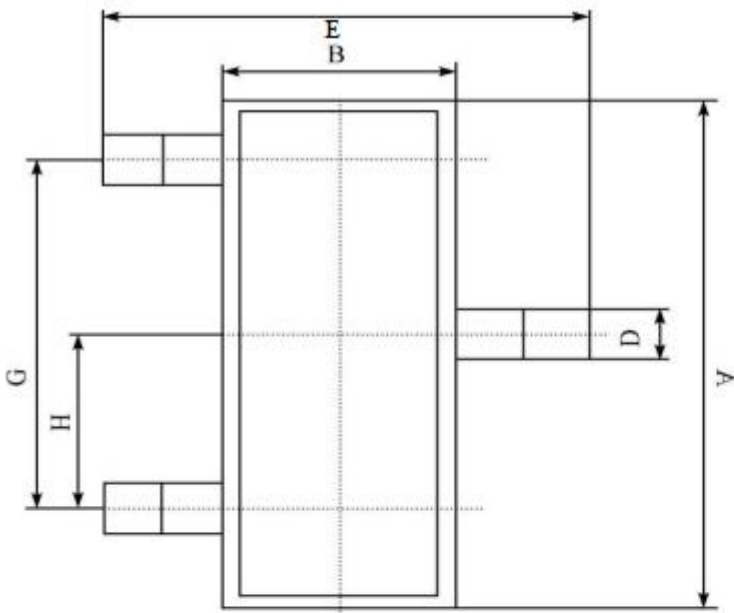
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如無特殊說明，溫度為 25°C)

Characteristic 特性參數	Symbol 符號	Test Condition 測試條件	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Reference Input Voltage 基準電壓精度	V_{REF} 0.5% 1% 2%	$V_{KA}=V_{REF}$, $I_{KA}=10\text{mA}$	2.483 2.470 2.445	2.495 2.495 2.495	2.507 2.520 2.545	V
Deviation of reference Input Voltage Over temperature 标准温度内基准電壓偏差	$\Delta V_{REF}/\Delta T$	$V_{KA}=V_{REF}$, $I_{KA}=10\text{mA}$ $0 \sim 70^{\circ}\text{C}$	—	3	17	mV
Ratio of Change in Reference Input Voltage to the Change in Cathode Voltage 陰極電壓与基准電壓变化比	$\Delta V_{REF}/\Delta V_{KA}$	$I_{KA}=10\text{mA}$ $\Delta V_{KA}=10\text{V} \sim V_{REF}$ $\Delta V_{KA}=36\text{V} \sim 10\text{V}$	—	-1.0 -0.5	-2.7 -2.0	mV/V
Reference Input Current 基準電流	I_{REF}	$I_{KA}=10\text{mA}$ $R1=10\text{k}\Omega, R2=\infty$	—	1.5	4	μA
Deviation of Reference Input Current Over Full Temperature Range 标准温度内基准電流偏差	$\Delta I_{REF}/\Delta T$	$I_{KA}=10\text{mA}$ $R1=10\text{k}\Omega, R2=\infty$ $T_A=\text{Full Temperature}$	—	0.4	1.2	μA
Minimum Cathode Current for Regulation 最小陰極電流	$I_{KA}(\text{MIN})$	$V_{KA}=V_{REF}$	—	0.45	1.0	mA
Off-state Cathode Current 关闭状态陰極電流	$I_{KA}(\text{OFF})$	$V_{KA}=36\text{V}$ $V_{REF}=0\text{V}$	—	0.05	1.0	μA
Dynamic Impedance 輸出阻抗	Z_{KA}	$V_{KA}=V_{REF}$ $I_{KA}=1 \text{ to } 100\text{mA}$ $f \leq 1\text{kHz}$	—	0.15	0.5	Ω

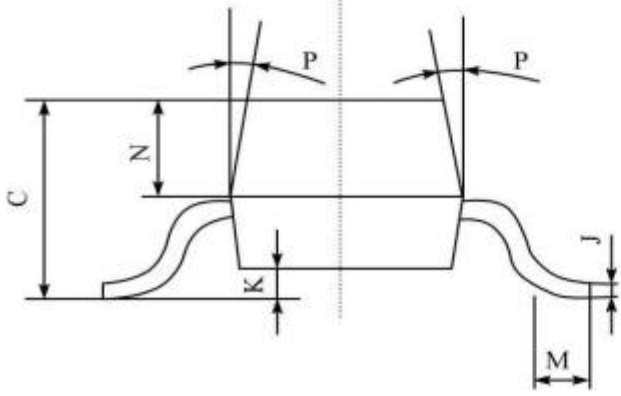
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■ **DIMENSION 外形封裝尺寸**

單位(UNIT): mm



代碼	範圍(單位:mm)
A	2.80~3.00
B	1.20~1.40
C	0.90~1.10
D	0.30~0.50
E	2.20~2.60
G	1.80~2.00
H	0.90~1.00
J	0.08~0.18
K	0.02~0.12
M	≥0.22
N	0.50~0.70
P	6°~10°





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