



## EL LAMP DRIVER IC

### GENERAL DESCRIPTION 功能敘述

The M5430A is CMOS chip design for Electro-luminescence Lamp (EL) to light,

The operating voltage is DC 3V, single choke be used, and 1 diode, 1 resistor and 2 transistor are necessary.

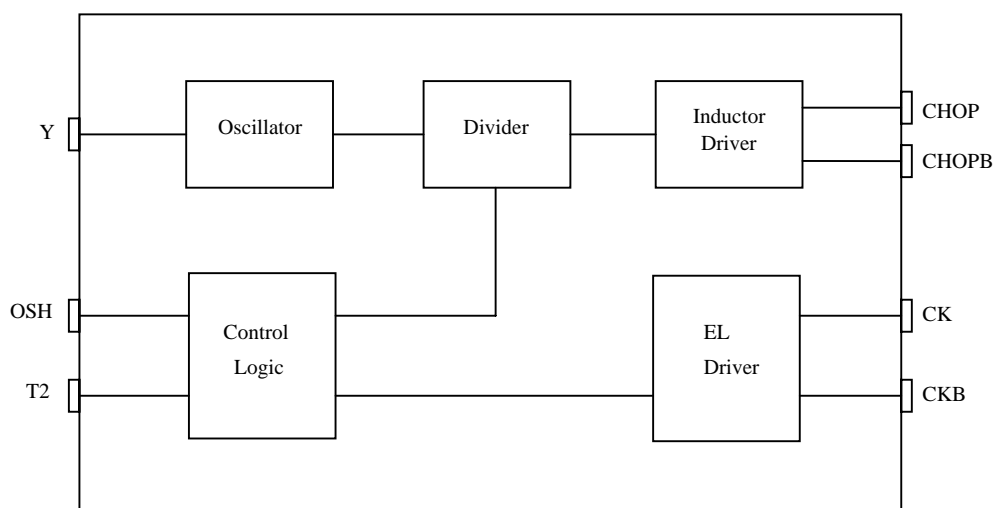
### FEATURES 產品特長

- DC to AC conversion.
- M5430A : Built-in RC oscillator.
- M5430A-1 : External RC oscillator.

### APPLICATIONS 產品應用

- EL display

### BLOCK DIAGRAM 功能方塊圖



\*All specs and applications shown above subject to change without prior notice.

( 以上電路及規格僅供參考,本公司得逕行修正 )



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**ABSOLUTE MAXIMUM RATING**

(TA=25°C)

Parameter	Rating	Unit
Supply Voltage	-0.3 to 5.0	V
Input Voltage	-0.2~V <sub>DD</sub> +0.2	V
Operating Temperature	-20 to 70	°C
Storage Temperature	-40 to 90	°C

**ELECTRICAL CHARACTERISTICS**

Characteristics	Sym.	Min.	Typ.	Max.	Unit	Conditions
Operating Voltage	V <sub>DD</sub>	—	3	3.5	V	
Operating Current	I <sub>OP</sub>	—	0.1	0.5	mA	No load
Quiescent Current	I <sub>SB</sub>	—	1	5	μA	
Driving Current	I <sub>OL</sub>	—	10	—	μA	@V <sub>DS</sub> =0.5V
	I <sub>OH</sub>	—	100	—		@V <sub>OH</sub> =2.5V
CK Frequency	F <sub>CK</sub>	—	400	—	Hz	
CHOP Frequency	F <sub>CHOP</sub>	—	16	—	KHz	
Oscillator Frequency	F <sub>OSC</sub>	—	425	—	KHz	M5430A : Internal±30%
						M5430A-1 : External±30%, R <sub>osc</sub> =43KΩ
Operating Temperature	Temp.	0	25	60	°C	

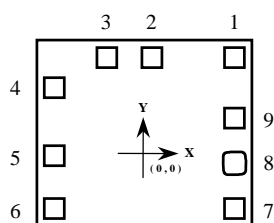
**PIN DESCRIPTION**

Pad Name	Description
CHOP	DC to AC converter output
CK	DC to AC converter output
VDD	Positive power supply
VSS	Negative power supply
T2	Test pin
OSH	Trigger pin
Y	Oscillator output
CKB/X	DC to AC converter invert CK/oscillator input
CHOPB	DC to AC converter invert CHOP



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**PAD ASSIGNMENT & POSITION**



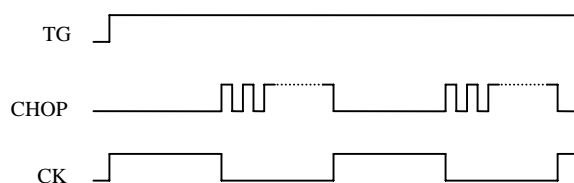
UNIT : um

No.	NAME	X	Y
1	Y	473	398
2	CKB	14	398
3	CHOPB	-219	398
4	CHOP	-474	222
5	CK	-474	-120
6	VDD	-474	-399
7	VSS	476	-399
8	T2	473	-166
9	OSH	473	67

\* CHIP SIZE ~ 1.25 x 1.20 mm<sup>2</sup>

\* IC substrate should be connected to VDD in PCB(PCB 上 IC 底座必須接 VDD)

**TIMING WAVEFORM**



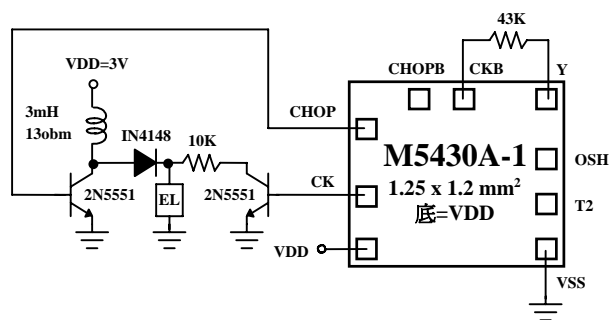
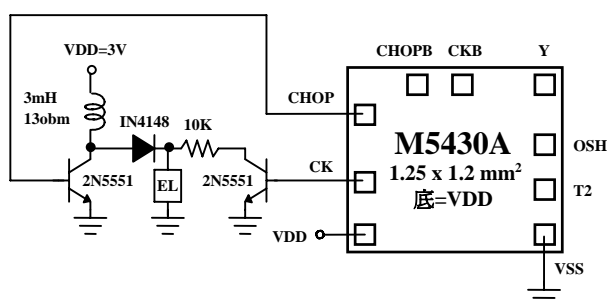


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APPLICATION DIAGRAM 參考電路圖

(1) M5430A : INT. Rosc using power control

(2) M5430A-1 : EXT. Rosc using power control



(3) M5430A TO-92-4L

