



EL LAMP DRIVER IC

GENERAL DESCRIPTION 功能叙述

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.

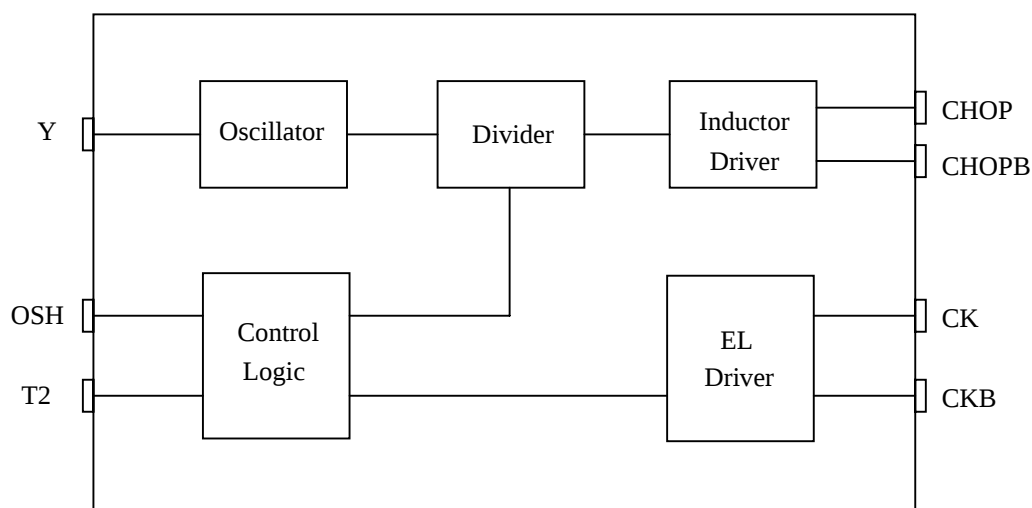
FEATURES 产品特长

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

APPLICATIONS 产品应用

- EL display

BLOCK DIAGRAM 功能方块图



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

(以上电路及规格仅供参考,本公司得径行修正)



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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 _{DD} +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 _{DD}	—	3	3.5	V	
Operating Current	I _{OP}	—	0.1	0.5	mA	No load
Quiescent Current	I _{SB}	—	1	5	μ A	
Driving Current	I _{OL}	—	10	—	μ A	@V _{DS} =0.5V
	I _{OH}	—	100	—		@V _{OH} =2.5V
CK Frequency	F _{CK}	—	400	—	Hz	
CHOP Frequency	F _{CHOP}	—	16	—	KHz	
Oscillator Frequency	F _{osc}	—	425	—	KHz	M5430A: Internal ± 30%
						M5430A-1: External ± 30%, R _{osc} =43K
Operating Temperature	Temp.	0	25	60	°C	

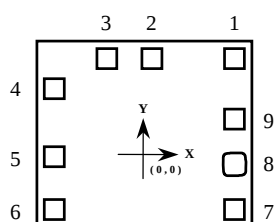
PIN DESCRIPTION

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



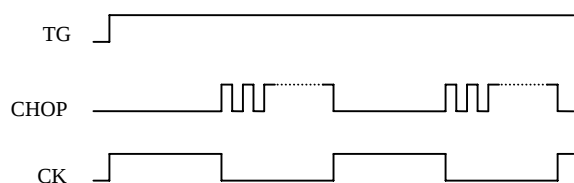
UNIT : μm

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 $\sim 1.25 \times 1.20 \text{ mm}^2$

* IC substrate should be connected to VDD in PCB(PCB 上 IC 底座必须接 VDD)

TIMING WAVEFORM

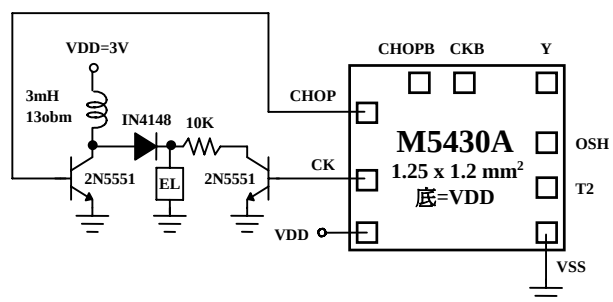




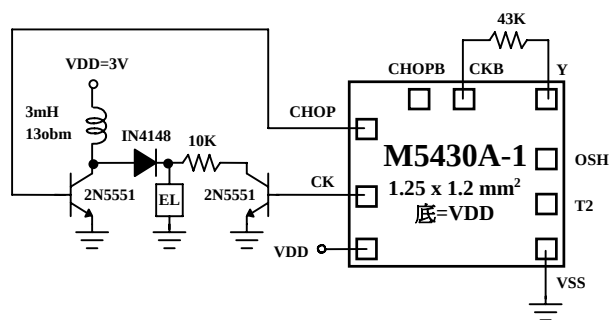
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APPLICATION DIAGRAM 参考电路图

(1) M5430A : INT. Rosc using power control



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



(3) M5430A TO-92-4L

