

**Features**

- Operating voltage : 3.5~5.5V
- Few external components
- No start to turn on Relay without oscillation.
- TO-94 package

**Description**

PT8A2513NE is CMOS LSI chip designed as a universal timer. It can handle normal timing control. PT8A2513NE provides simple universal timer for various equipments, the chip is enclosed in a 4-pin TO-94

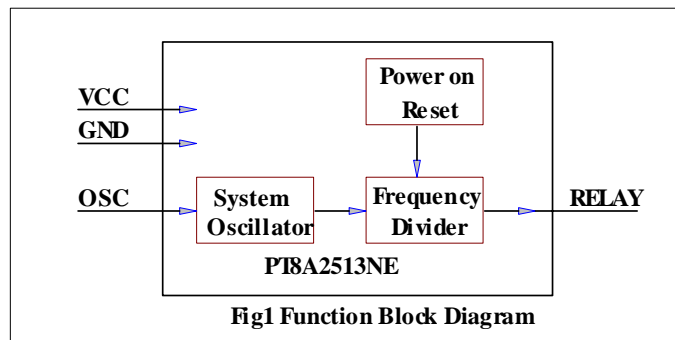
**Ordering Information**

Part Number	Package
PT8A2513NE	TO-94 Lead free

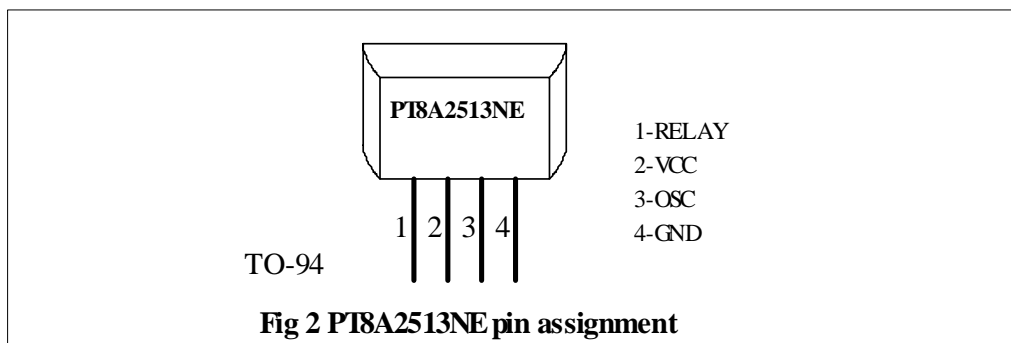
**Applications**

- Electronic Iron, Cooker, Oven, Fryer and others.

**Block Diagram**



**Pin Assignment**



**Pin Description**

Name	Pin No.	Type	Description
RELAY	1	O	Relay control output, high active
VCC	2	-	Power supply
OSC	3	I/O	Input/output of RC oscillator
GND	4	-	GND

## Maximum Rating

Storage Temperature.....	- 25°C to +85°C
Supply Voltage to Ground Potential (Inputs & V <sub>CC</sub> only).....	- 0.5 to +5.5V
Supply Voltage to Ground Potential (Outputs only) .....	- 0.5 to +5.5V
DC Input Voltage .....	- 0.5V to +5.5V
Output Current .....	20mA
Power Dissipation.....	500mW

**Note:**

Stresses greater than those listed under AXIMUM RATINGS may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect reliability.

## Recommended Operating Conditions

Symbol	Pin	Description	Min	Typical	Max	Unit
V <sub>CC</sub>	V <sub>CC</sub>	Supply voltage	3.5	4	5.5	V
T <sub>a</sub>	-	Operation Temperature	0	25	85	°C

## DC Electrical Characteristics

(T<sub>A</sub> = 0 ~ 85°C, unless otherwise noted)

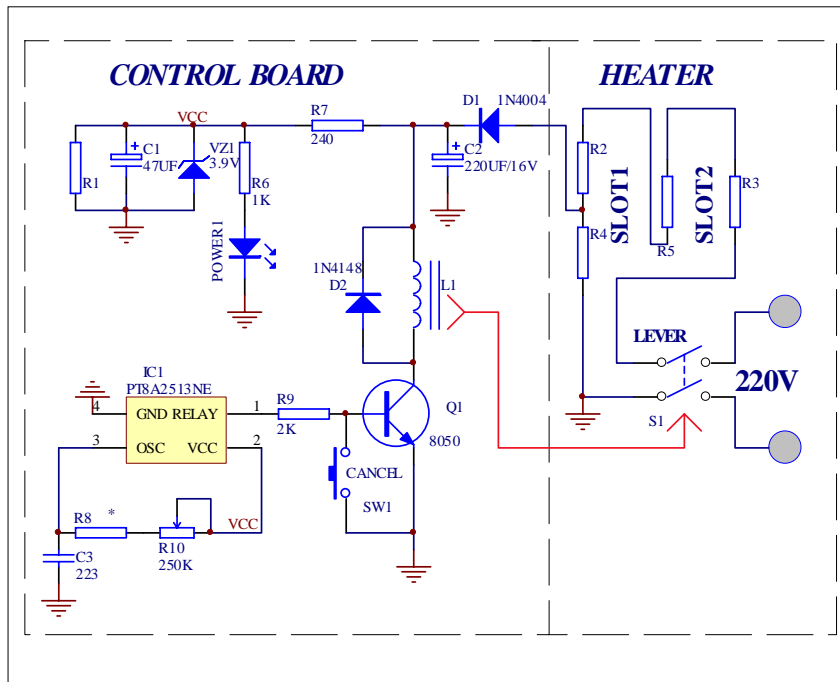
Symbol	Description	Test Conditions	Min	Typical	Max	Unit
IOH	Output source current	V <sub>CC</sub> = 3.5V, VOH=2.0V	-12	-	-	mA
IOL	Output sink current	V <sub>CC</sub> = 3.5V, VOL=0.5V	0.5	-	-	mA
FOSC	Frequency of oscillator	V <sub>CC</sub> = 4.0V R <sub>osc</sub> =56K, C <sub>osc</sub> =223	952	1024	1096	Hz

## AC Electrical Characteristics

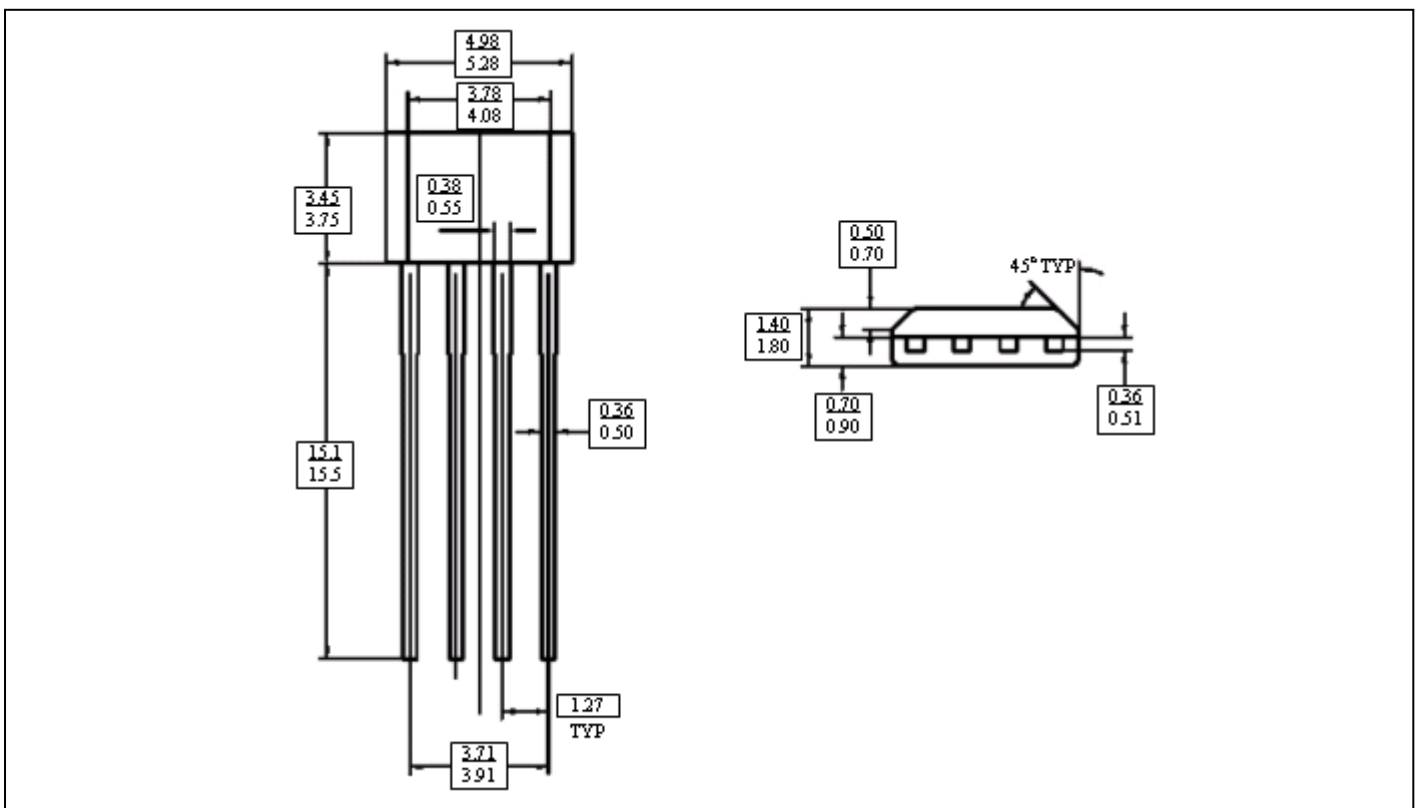
(T<sub>A</sub> = 0 ~ 85°C, unless otherwise noted)

Symbol	Description	Test Conditions	Min	Typical	Max	Unit
I <sub>CC</sub>	Current consumption	V <sub>CC</sub> = 4.0V R <sub>osc</sub> =56K, C <sub>osc</sub> =223	-	-	100	μA

**Application Circuit**



**Mechanical Information**  
TO-94



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**Notes**

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