

CDT3050V

P. 1

3-DIGIT DOWN TIMER IC

## DESCRIPTION

The CDT3050H is a low voltage 3 digits LCD driver for advanced **Count Down Timer**.

Minimal components are used.

With START/STOP and RECALL setting functions.

LCD: 1/2 Duty, 1/2 Bias, 2 Commons

## APPLICATIONS

- Count Down Timer
- Electronic Timer
- Setting Control Timer

## FEATURES

- CMOS Technology
- Supply Voltage Range : 1.2 ~ 1.8VDC
- Low Standby Current < 5 $\mu$ A
- With a Trigger Output Capability
- Time Setting : Max: 999 Minutes  
Min: 1 Minute
- 32768 Hz Crystal used
- LCD displays Seconds until the last minute
- 16 seconds, 4Hz (64 Sounds) BiBi Alarm when time runs out
- “★” - Operating symbol
- “S” - Seconds symbol

## DEVICE TYPE

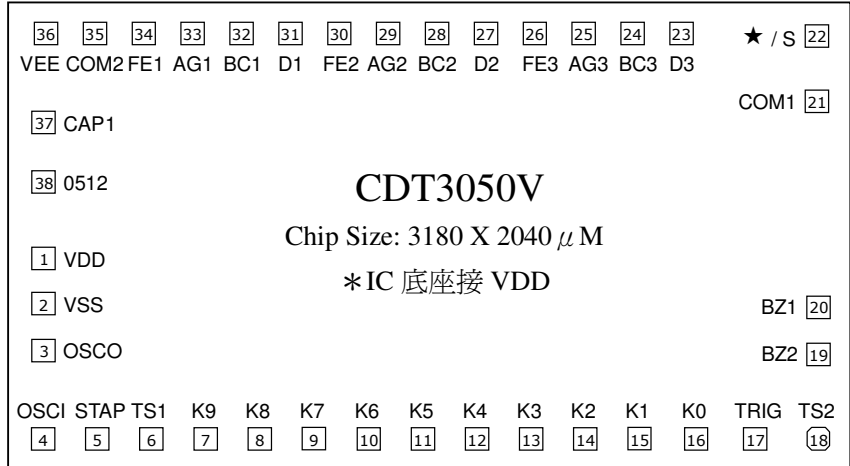
Type No.	Package
CDT3050V	Chip form

## DC ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Type	Max	Unit
Operation Voltage	VDD	1.2	1.5	1.8	V
Operation Current	I <sub>dd</sub>	-	-	2.0	$\mu$ A
BZ Driver Current	I <sub>bz</sub>	2.0	-	-	mA
Crystal		-	32768	-	Hz
LCD Display Freq		-	32	-	Hz
K0~K9 Input Current	I <sub>key</sub>	-	-	5	$\mu$ A
Trigger Output Current	I <sub>trig</sub>	1	-	-	mA

※ Above testing conditions are based on VDD=1.5V

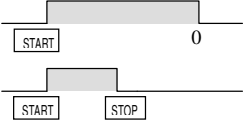
### ■ PAD ASSIGNMENT



### ■ PIN DESCRIPTIONS

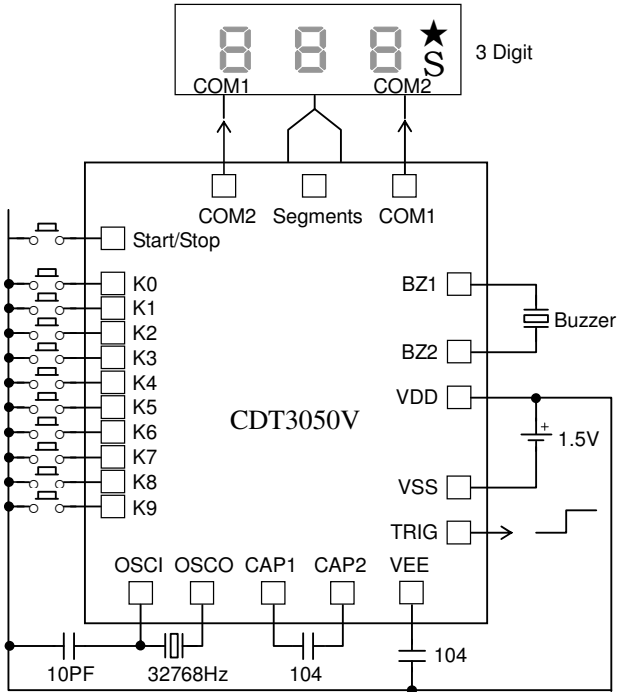
Chip PAD	Symbol	Functions Description
1	VDD	Positive Power Supply
2	VSS	Negative Power Supply
3	OSCO	Oscillator Output , with 32,768Hz Crystal
4	OSCI	Oscillator Input
5	STAP	START/STOP key, START, STOP push switch
6	TS1	Internal Testing pin
7	K9	Time Setting Key (9)
8	K8	Time Setting Key (8)
9	K7	Time Setting Key (7)
10	K6	Time Setting Key (6)
11	K5	Time Setting Key (5)
12	K4	Time Setting Key (4)
13	K3	Time Setting Key (3)
14	K2	Time Setting Key (2)
15	K1	Time Setting Key (1)
16	K0	Time Setting Key (0)

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Chip PAD	Symbol	Functions	Description
17	TRIG	Trigger Output	: 
18	TS2	Internal Testing pin	
19	BZ2	Buzzer Output	
20	BZ1	Buzzer Output	Continues BiBi Alarm, 16sec 4Hz – 64 Sounds
21	COM1	LCD Common1	
22	★/S	(★) Timer is working ; ( S )	<u>Seconds</u> symbol
23	D3	LCD segment	
24	BC3	LCD segment	
25	AG3	LCD segment	
26	FE3	LCD segment	
27	D2	LCD segment	
28	BC2	LCD segment	
29	AG2	LCD segment	
30	FE2	LCD segment	
31	D1	LCD segment	
32	BC1	LCD segment	
33	AG1	LCD segment	
34	FE1	LCD segment	
35	COM2	LCD Common2	
36	VEE	Voltage Doubled Input	
37	CAP1	Voltage Doubled Capacitor	
38	0512	Voltage Doubled Capacitor	

■ APPLICATION CIRCUITS

10 KEYS SETTING TIMER



■ LCD DRAWING

