



CDT3381

1.使用說明

CDT3381 是專門設計應用於低週波電療,12 段功能輸出,方便使用

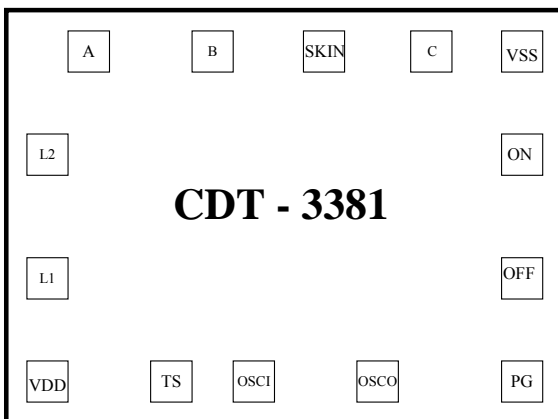
2.特性

- CMOS 製造技術
- 工作電壓範圍：2.0V~5.0V
- 靜態電流 < 5 μ A
- 輸出電流：電流>10mA @電壓=3V
- 獨立三鍵 ON,OFF,PROGRAM

3.產品應用

- 健身用電療器

4.PAD 位置圖

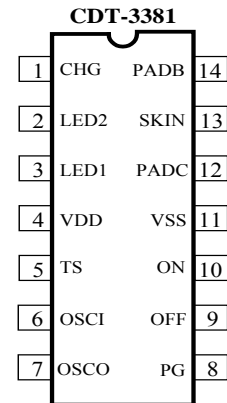


CHIP SIZE : 1900 * 1920 μ M

Note : IC底座接VDD

5.封裝方式

DIP 16 PIN



6.PAD 座標圖 (單位: μm)

	PAD	X	Y
1	A	231	1665
2	L2	117	1402
3	L1	117	1144
4	VDD	117	115
5	TS	361	115
6	OSCI	780	115
7	OSCO	1373	115
8	PG	1662	115
9	OFF	1705	373
10	ON	1705	628
11	VSS	1705	1665
12	C	1395	1665
13	SKIN	990	1665
14	B	643	1665

7. 腳位說明

Name	I/O	Description
A	O	Source current 10mA@VOH=1V
L2	O	Sink current 20mA @VOL=1V (負輸出)
L1	O	Sink current 20mA @VOL=1V (負輸出)
VDD	P	電源正極
TS	B	測試端
OSCI	I	振盪輸入
OSCO	O	振盪輸出
PG	I	100K
OFF	I	100K
ON	I	100K
VSS	P	電源負極
C	O	Source current 10mA @VOH=1V
SKIN	I	100K
B	O	Source current 10mA @VOH=1V

8. 最大額定範圍

- Supply Voltage ----- - 0.3V to 5.0V
- Input Voltage ----- VSS-0.3 to VDD+0.3
- Operating Temperature ----- 0 to 70
- Storage Temperature----- - 50 to 125

* Note : Stresses above those listed may cause permanent damage to the devices.

9. 電氣特性

(V_{DD}=3V, T_A = 25 , unless otherwise specified)

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V _{DD}	Supply Voltage		2.0	3.0	5.0	V
I _{STB}	Standby Current	@V _{DD} = 3V, no load			5.0	μA
		@V _{DD} = 5V, no load			10	
I _{OL1}	Driving Current (A, B, C)	@V _{DD} = 3V, V _{OL} =1V	10			mA
I _{OL2}	Sink Current (L1~L2)	@V _{DD} = 3V, V _{OL} =1.0V	20			mA

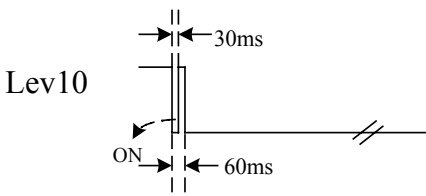
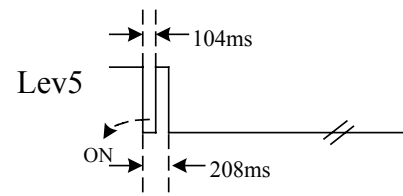
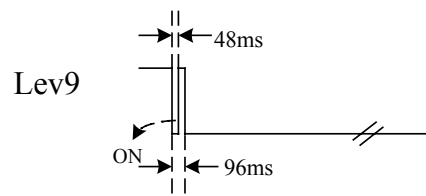
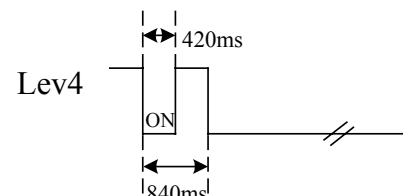
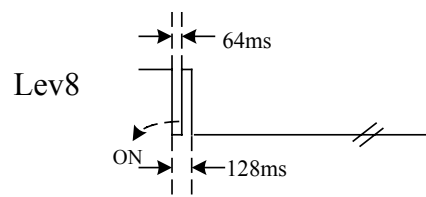
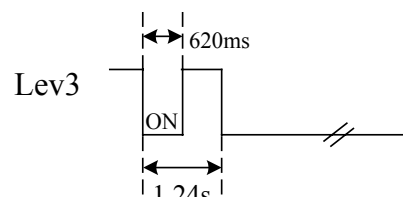
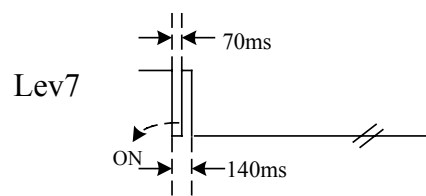
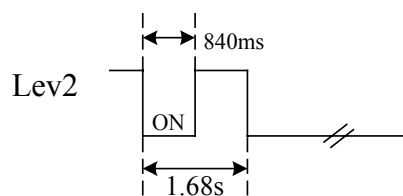
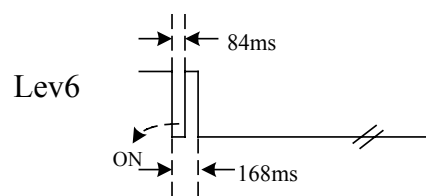
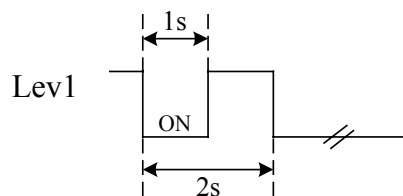
10. 功能描述

- (1). 12 段式 Push Bottom 切換開關。
- (2). Power On 時在 OFF mode。
- (3). Push On 累增段數。
Push OFF 遞減段數。
Push PG 選擇使用者模式(P1 or P2)。
- (4). Standby mode 時使用者有 10sec 選擇使用者模式(P1 or P2)。
 - ①. 若 10sec 內，Push PG 則 reset 10sec。
 - ②. 若 10sec 後，未進入 Level 段，則跳至 OFF mode。
 - ③. 在 OFF mode 時按 ON 時喚醒，LED 恆亮，恢復原 Program 狀態。
- (5). Level1 段時若無 skin 信號，Push On 則無法跳至 Level2，若持續 20sec 則跳至 OFF mode。
- (6). Level2~ Level10 時若 10sec 無 skin 信號則跳至 Level1。
- (7). 進入 Level1~ Level10 時，Push PG 則強制跳至 Level1，系統進入 Level 段後持續振盪 600sec 後，系統跳至 OFF mode。

Program1 LED1 波形 :

LED 以 Sink 方式工作

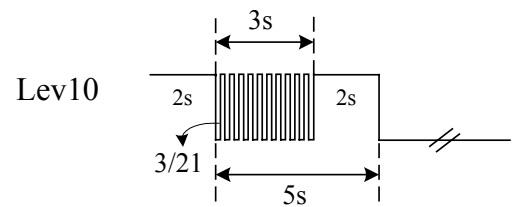
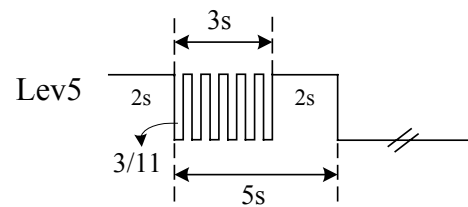
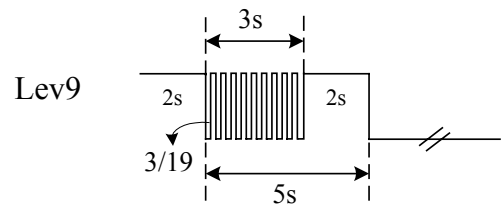
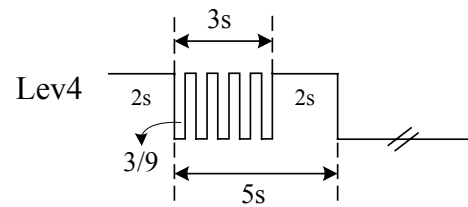
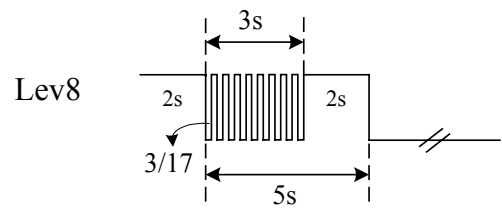
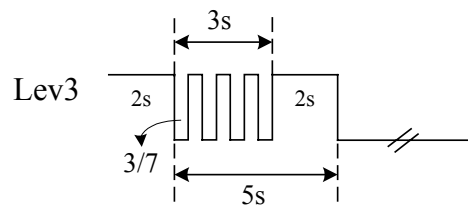
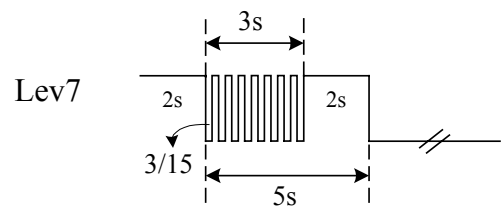
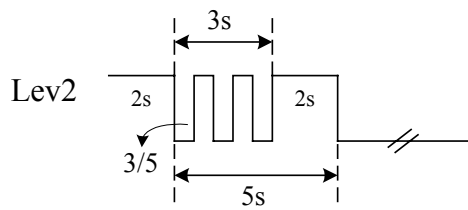
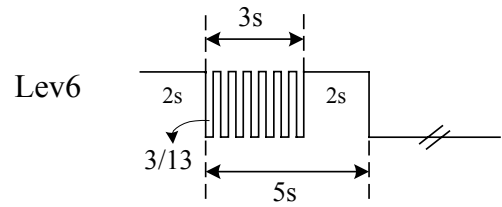
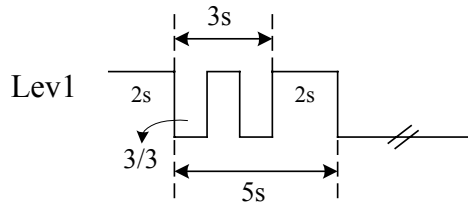
Standby : 恆亮



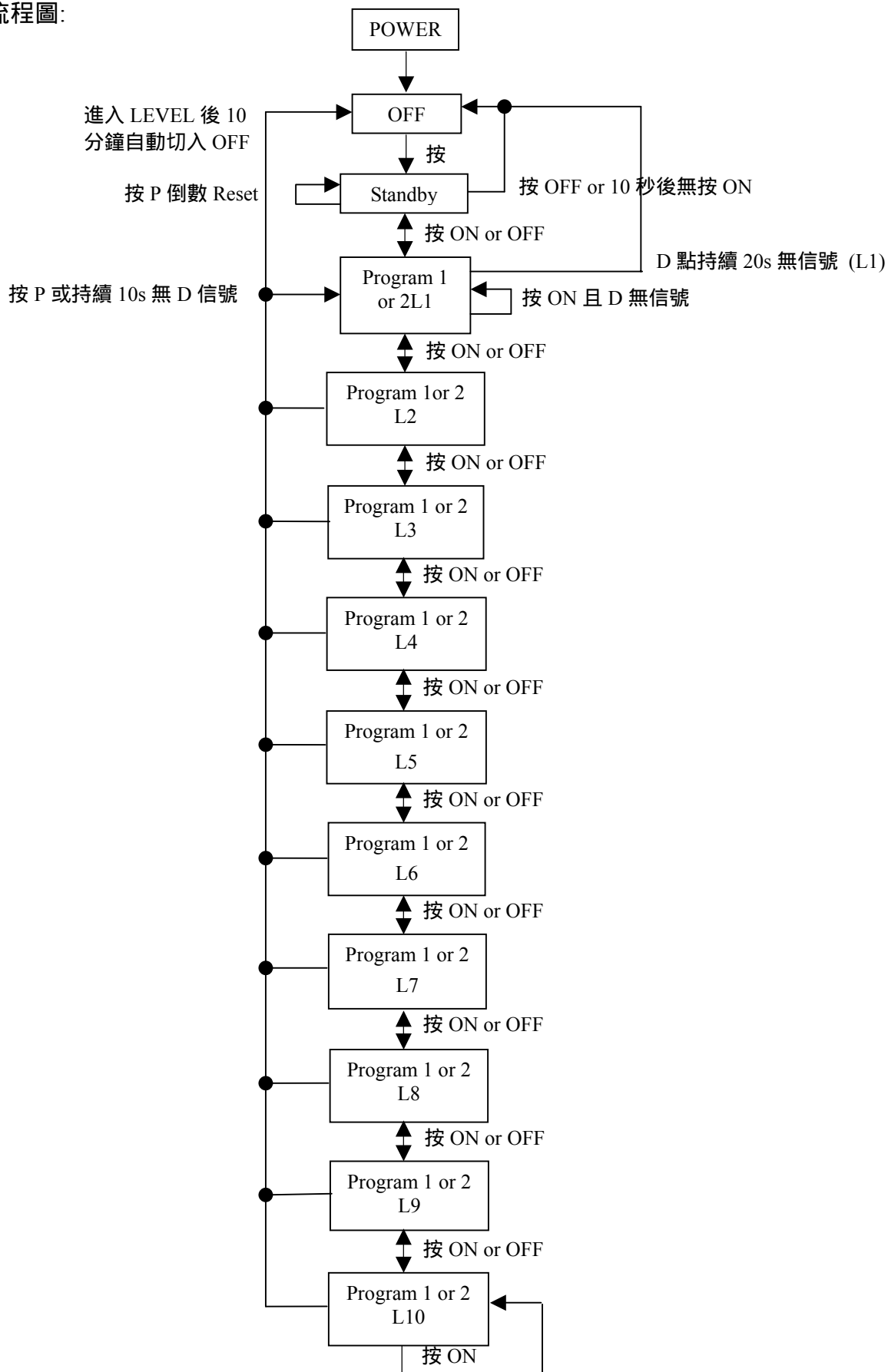
Program2 LED1 及 LED2 波形 :

O/P LOW 時亮

Standby : 恆亮



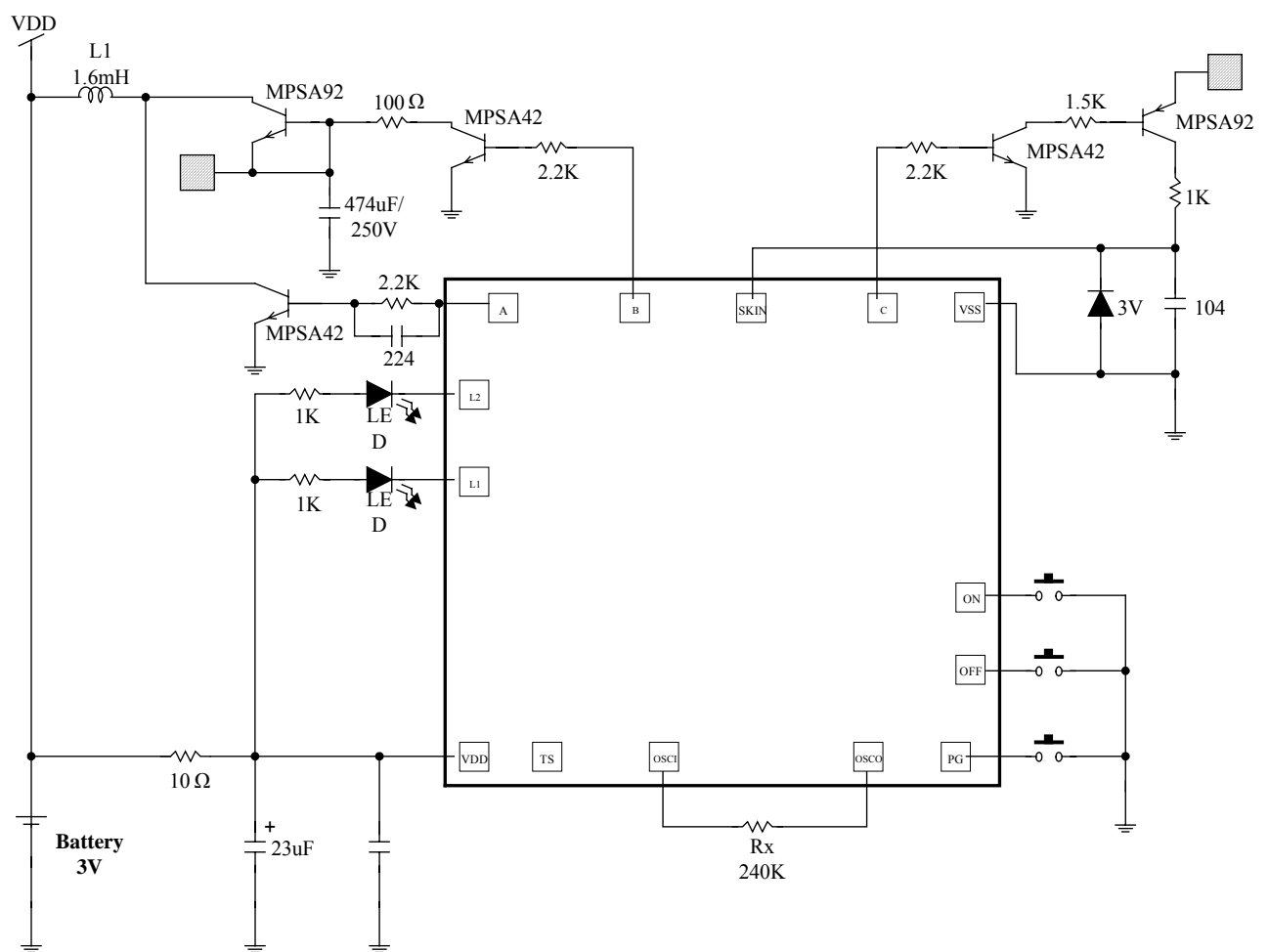
操作流程圖:



OFF mode：內建震盪開關，Configure 為最佳省電狀態，LED 不亮，
在進入 OFF 前記錄 Program 狀態。

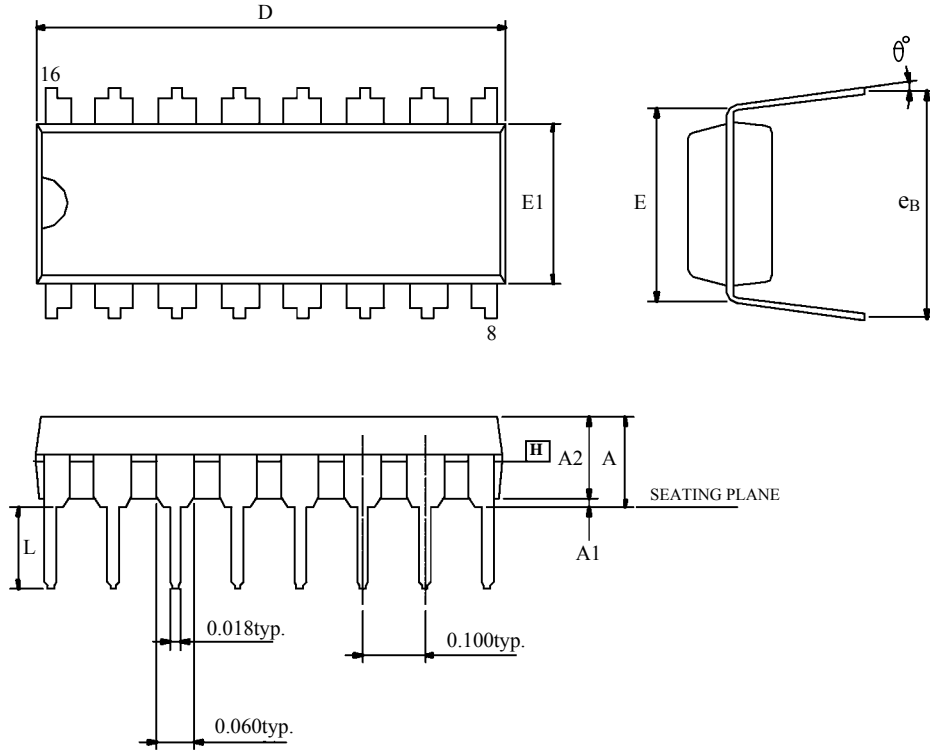
Standby mode：在 OFF mode 時按 ON 時喚醒，LED 恆亮，恢復原 Program 狀態。

11. 應用線路



12.封裝外觀圖

• 16-pin DIP outline dimensions



Symbols	MIN.	NOR.	MAX.
A	-	-	0.210
A1	0.015	-	-
A2	0.125	0.130	0.135
D	0.735	0.755	0.775
E	0.300 BSC.		
E1	0.245	0.250	0.255
L	0.115	0.130	0.150
e_B	0.335	0.355	0.375
0	0	7	15

UNIT : INCH

NOTES.

- JEDEC OUTLINE : MS-001 BB
- "D", "E1" DIMENSIONS DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS. MOLD FLASH OR PROTRUSIONS SHALL NOT EXCEED 0.010 INCH.
- e_B IS MEASURED AT THE LEAD TIPS WITH THE LEADS UNCONSTRAINED.
- POINTED OR ROUNDED LEAD TIPS ARE PREFERRED TO EASE INSERTION.
- DISTANCE BETWEEN LEADS INCLUDING DAM BAR PROTRUSIONS TO BE 0.005 INCH MINIMUM.
- DATUM PLANE H COINCIDENT WITH THE BOTTOM OF LEAD, WHERE LEAD EXIT BODY.

* CDT assumes no responsibility for the use of the specification described. CDT reserves the right to modify the product specification without notice. (以上規格僅供參考，本公司得逕行修正，不另通知)