



350mA Power LED Current Regulator

● 產品說明(General Description)

CDT2500 是一顆低噪音的 LED 驅動 IC，設計應用於推動定電流 350mA power LED，具有低壓降、低工作電流與快速的暫態響應的良好特性，並且因為所需的外部零件不多，使其非常適合用在以電池驅動可攜的電路中。

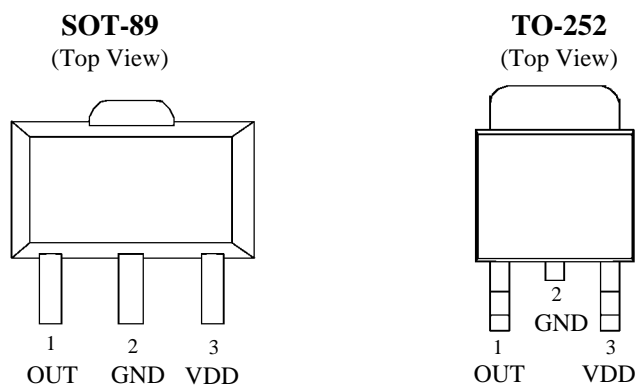
● 產品特性(Features)

- 保證 350mA 輸出電流
- 低壓降耗損
- 低工作電流
- 快速的暫態響應
- 輸入電壓範圍 2.7V~6V
- LED 開路/短路保護
- 過溫保護
- SOT-89 與 TO-252 包裝

● 產品應用(Applications)

- LED 手電筒
- Power LED 驅動器

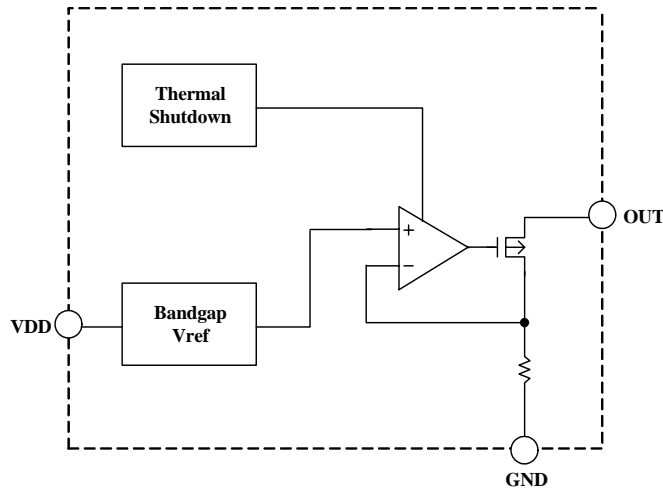
● 腳位圖(Pin Assignment)



● 腳位說明(Pin Description)

PIN NO.	PIN NAME	FUNCTION
1	OUT	輸出腳位
2	GND	電位參考點
3	VDD	電源正端

● 功能方塊圖(Block Diagram)



● Absolute Maximum Ratings

- Supply Voltage ----- -0.3V to 7.0V
- Input Voltage ----- 0.3V to VDD+0.3V
- Operating Temperature ----- -40 to 85
- Storage Temperature----- -50 to 150

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

● Electrical Characteristic

(VDD=3.7V, TA = 25 , no load, unless otherwise specified)

Symbol	Parameter	Condition	Min.	Typ.	Max.	Units
VDD	Input Voltage		2.7		6.0	V
IOUT	Output Current	VOUT=0.2V	315	350	390	mA
ΔVLOAD	Load Regulation	VOUT=0.2V~3V			3	mA/V
ΔVLINE	Line Regulation	VDD=3V~6V VOUT=0.2V			3	mA/V
VDROP	Output Dropout Voltage (Note1)			120		mV
IVDD	Operating Current			200		uA

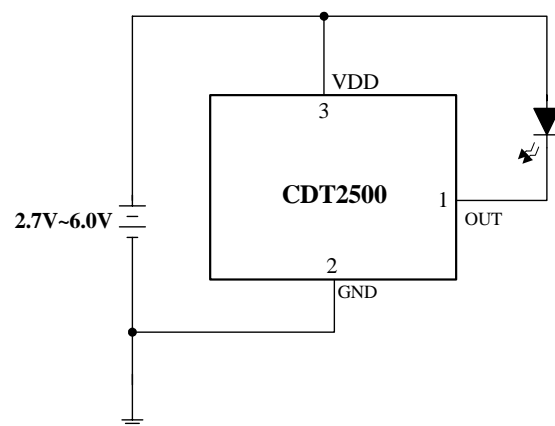
Note1 : Output dropout voltage : 90% * IOUT @ VOUT = 200mV

- **功能說明(Function Description)**

- **定電流功能**

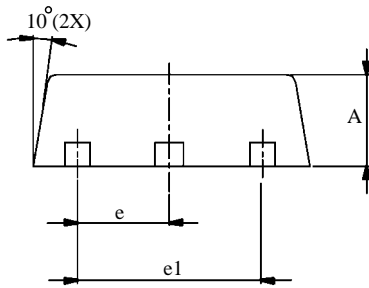
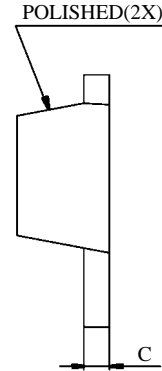
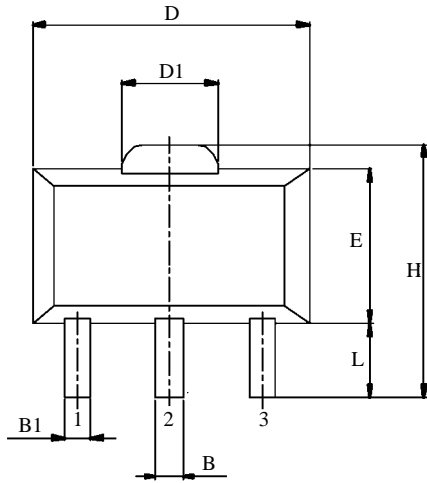
- 350mA 的定電流是由 IC 內部的電阻設定完成，不需要外加的電阻。 IC 內部的低壓降電流源也維持 LED 精確的電流。

- **應用線路圖(Application Circuit)**



● 封裝外觀圖(Package Information)

• SOT-89-3PIN outline dimensions



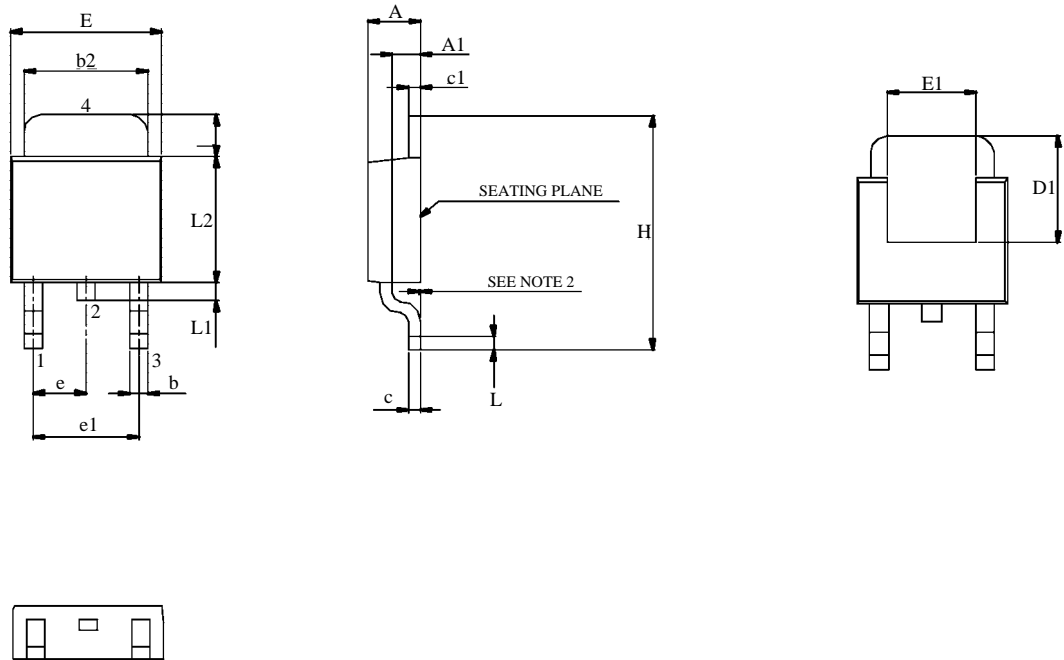
Symbols	MIN.	MAX.
A	1.40	1.60
B	0.44	0.56
B1	0.36	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.35	1.83
E	2.29	2.60
H	3.94	4.25
e	1.50 BSC	
e1	3.00 BSC	
L	0.89	1.2

UNIT : MM

NOTES.

1. JEDEC OUTLINE : TO-243 AA
2. DIMENSION B1, 2 PLACES.

• TO-252-3PIN outline dimensions



Symbols	MIN.	MAX.
A	0.086	0.094
A1	0.040	0.050
b	0.024 TYP.	
b2	0.205	0.215
c	0.018	0.023
c1	0.018	0.023
D	0.210	0.220
E	0.250	0.265
D1	0.180	-
E1	0.150	-
e	0.090 BSC.	
e1	0.180 BSC.	
H	0.370	0.410
L	0.020	-
L1	0.250	0.040
L2	0.060	0.080

VARIATIONS (ALL DIMENSIONS SHOWN IN INCH)

NOTES.

1. JEDEC OUTLINE : TO-252 AB
2. 2 MILS SUGGESTED FOR POSITIVE CONTACT AT MOUNTING.

* 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)