

# SM8502

431  
 0.3W@265VAC  
 ±5% ±10%

LEB

HDIP4 SOP8

PDA MP3

LED

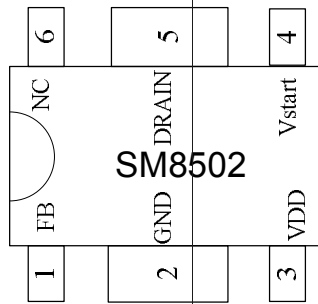
SM8502

AC/DC

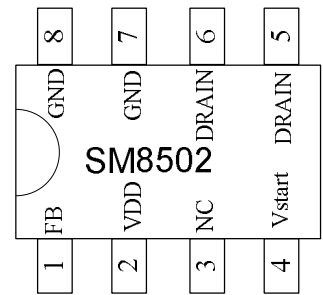
431

± 5%

± 10%



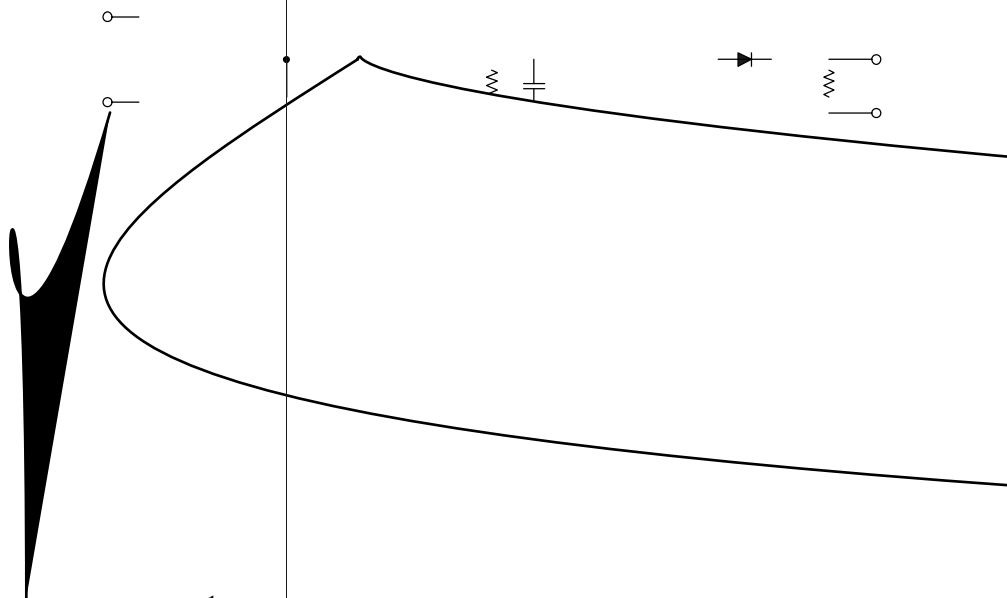
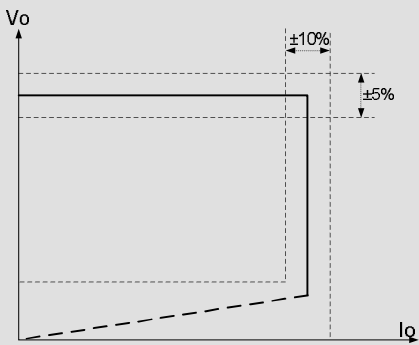
HDIP4

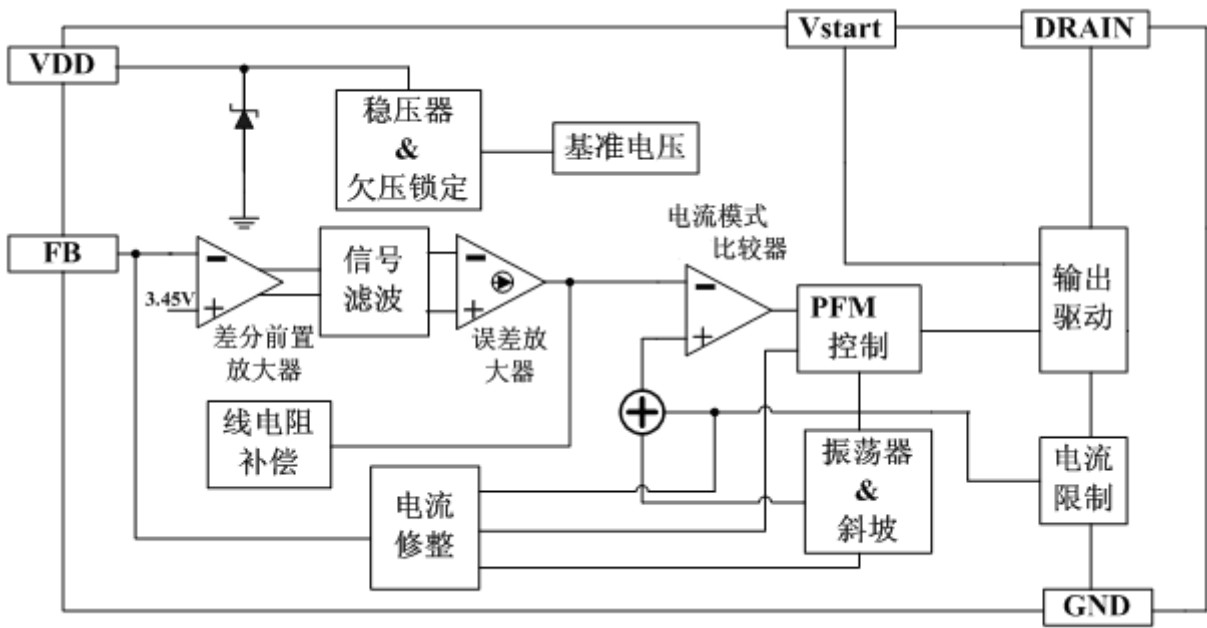


SOP8

(AC85V~AC265V)

|       |    |    |
|-------|----|----|
|       |    |    |
| HDIP4 | 7W | 5W |
| SOP8  | 5W | 3W |





|        | HDIP4 | SOP8 |    |
|--------|-------|------|----|
| FB     | 1     | 1    | FB |
| GND    | 2     | 7 8  |    |
| VDD    | 3     | 2    |    |
| Vstart | 4     | 4    |    |
| DRAIN  | 5     | 5 6  |    |
| NC     | 6     | 3    |    |

T<sub>A</sub>= 25

|                     |       |           |    |
|---------------------|-------|-----------|----|
| V <sub>DRAIN</sub>  | DRAIN | 700       | V  |
| V <sub>DD-GND</sub> | VDD   | -0.3 23.5 | V  |
| I <sub>DD</sub>     | VDD   | 10        | mA |
| V <sub>FB-GND</sub> | FB    | -0.3 6.0  | V  |
| R <sub>θJA</sub>    | HDIP4 | 90        | /W |
|                     | SOP8  | 130       | /W |
| T <sub>OP</sub>     |       | -20 85    |    |
| T <sub>stg</sub>    |       | -40 150   |    |
| ESD                 | HBM   | >2000     | V  |

( T<sub>A</sub>=25 )

|                      |     |                             |      |      |      |     |
|----------------------|-----|-----------------------------|------|------|------|-----|
|                      |     |                             |      |      |      |     |
| VDD                  |     |                             |      |      |      |     |
| I <sub>DDSTART</sub> |     | VDD=15V                     | -    | 18   | 26   | μA  |
| I <sub>DDOP</sub>    |     | VDD=V <sub>DDON</sub> +0.3V | -    | 1.1  | 2.0  | mA  |
| V <sub>DDON</sub>    | VDD |                             | 17   | 19   | 22   | V   |
| V <sub>DDOFF</sub>   | VDD |                             | 7.5  | 8.0  | 8.6  | V   |
| V <sub>DDOVP</sub>   | VDD |                             | 18.0 | 20.5 | 23.5 | V   |
| FB/SW                |     |                             |      |      |      |     |
| V <sub>FB</sub>      | FB  |                             | 3.35 | 3.46 | 3.55 | V   |
| F <sub>OSC</sub>     |     |                             | -    | 55   | -    | KHz |
| I <sub>LIM</sub>     |     |                             | -    | 440  | -    | mA  |
| T <sub>OTP</sub>     |     |                             | -    | 155  | -    |     |

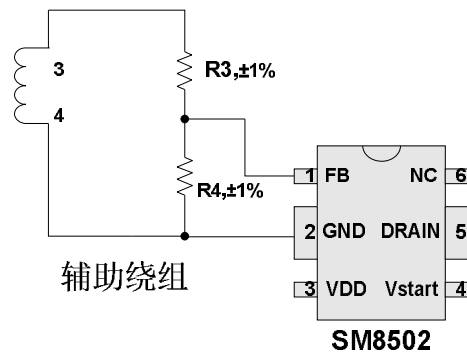
SM8502

AC/DC

(CV)

(CC)

$$V_{OUTCV} = V_{FB} \times \left(1 + \frac{R_3}{R_4}\right) \left(\frac{N_s}{N_A}\right) - V_F \quad (1)$$



$N_s$   $N_A$

$R_3$   $R_4$

$V_F$

$$\frac{1}{2} \times L_p \times I_{LIM}^2 \times \eta$$

$L_p$

$I_{LIM}$

$\eta$

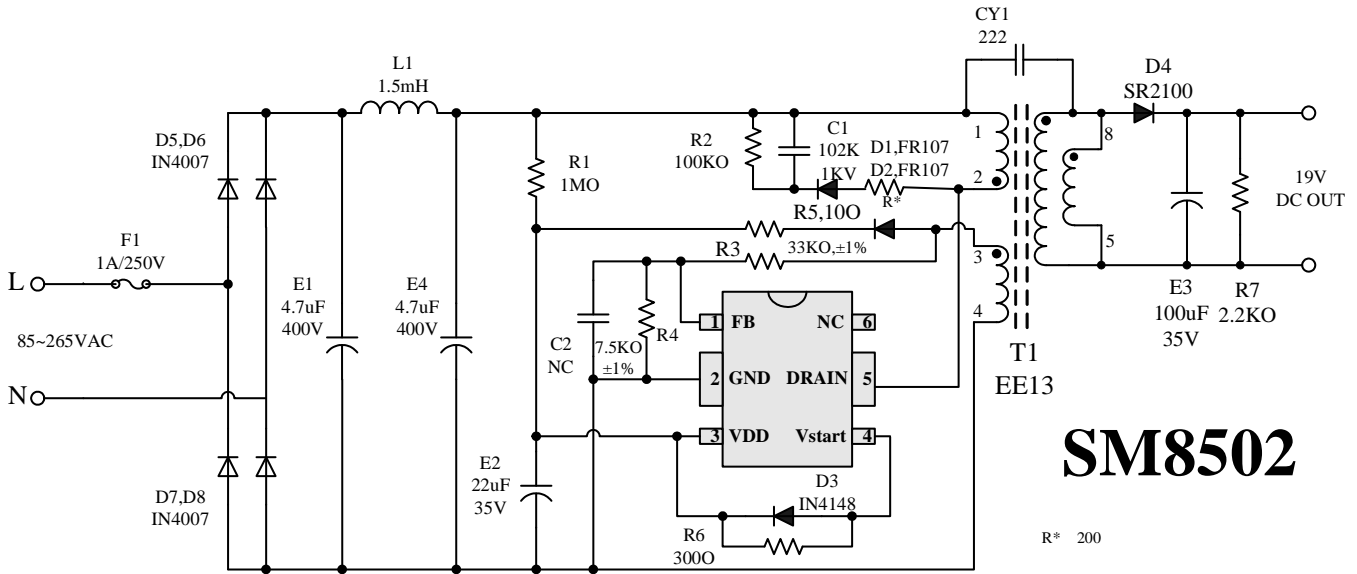
$$I_{OUTCC} = \frac{1}{2} L_p \times (I_{LIM})^2 \left(\frac{\times F_{osc}}{V_{OUTCV}}\right) \quad (2)$$

$F_{osc}$

$V_{OUTCV}$

SM8502

SM8502 19V/330mA--LED



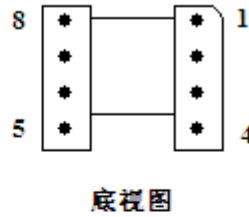
**SM8502**

R\* 200

SM8502 19/330mA --LED



EE13(4+4)

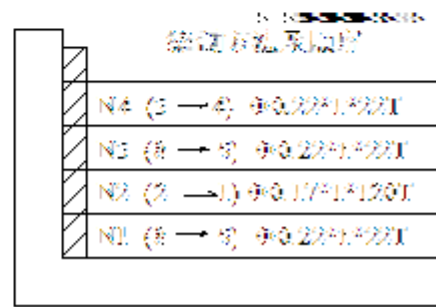
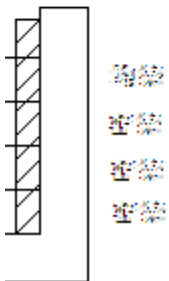


底视图

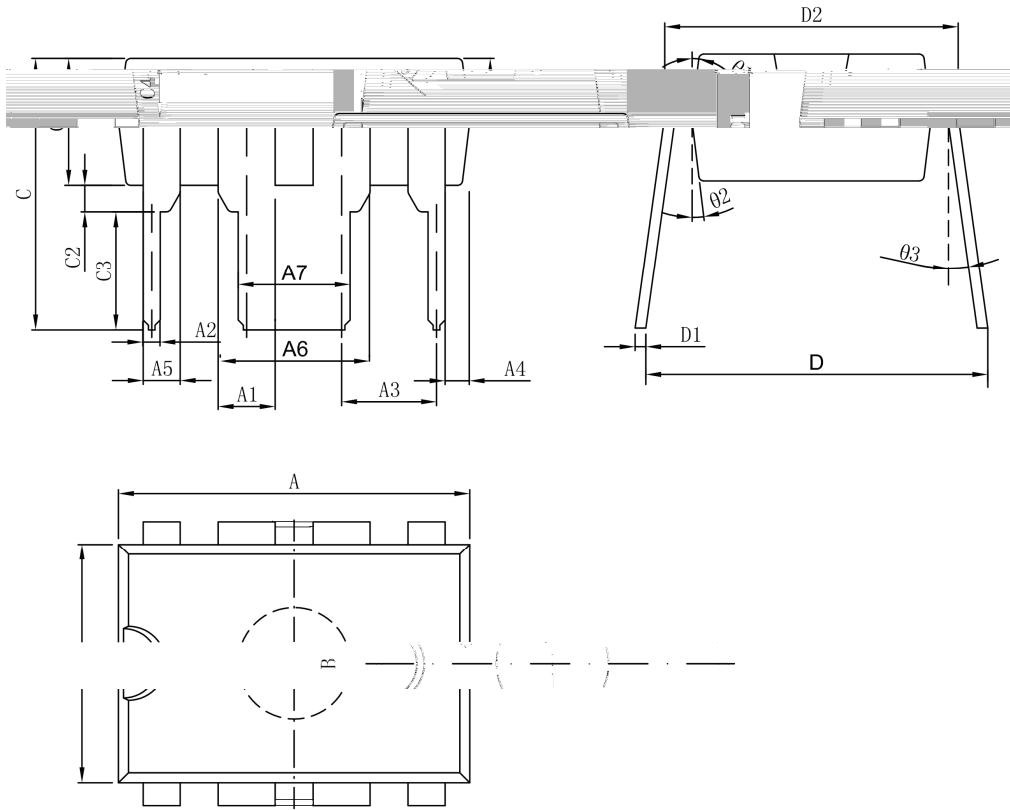
● 连线  
□ 绝缘空管

绝缘管上

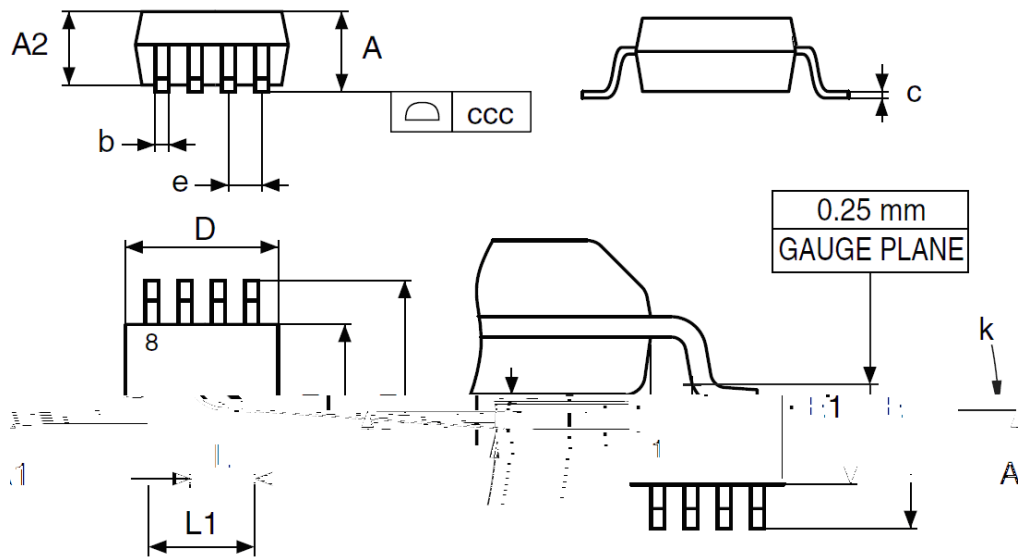
1. 初级绕组接在 0-220V 交流
2. 初级匝数  $N_p$  (2—4) 110T 副边匝数  $N_s$  (1—4) 8, 5, 4
3. 副边绕组接在 1500V 耐压电解电容  $\leq 100\mu F$
4. 副边绕组接在 1500V 耐压电解电容  $\leq 100\mu F$
5. 副边绕组接在 1500V 耐压电解电容  $\leq 100\mu F$
6. 1500V 绝缘与绝缘之间  $1\text{mm}$  间距  $\geq 100\text{mm}$
7. 1500V 绝缘与绝缘之间  $1\text{mm}$  间距  $\geq 100\text{mm}$



HDIP4



| REF. | Size | MIN(mm)  | MAX(mm) | REF.    | Size | MIN(mm) | MAX(mm) |
|------|------|----------|---------|---------|------|---------|---------|
| A    |      | 9.30     | 9.50    | C1      |      | 3.30    | 3.50    |
| A1   |      | 1.524    |         | C2      |      | 0.50    |         |
| A2   |      | 0.39     | 0.53    | C3      |      | 3.3     |         |
| A3   |      | 2.54     |         | C4      |      | 1.57TYP |         |
| A4   |      | 0.66TYP  |         | D       |      | 8.20    | 8.80    |
| A5   |      | 0.99 TYP |         | D1      |      | 0.20    | 0.35    |
| A6   |      | 4.064    |         | D2      |      | 7.62    | 7.87    |
| A7   |      | 2.997    |         | theta 1 |      | 8°TYP   |         |
| B    |      | 6.3      | 6.5     | theta 2 |      | 8°TYP   |         |
| C    |      | 7.20     |         | theta 3 |      | 5°TYP   |         |



| DIMENSIONS |      |      |      |        |        |        |
|------------|------|------|------|--------|--------|--------|
| REF.       | mm   |      |      | inch   |        |        |
|            | MIN. | TYP. | MAX. | MIN.   | TYP.   | MAX.   |
| A          |      |      | 1.75 |        |        | 0.0689 |
| A1         | 0.1  |      | 0.25 | 0.0039 |        | 0.0098 |
| A2         | 1.25 |      |      | 0.0492 |        |        |
| b          | 0.28 |      | 0.48 | 0.011  |        | 0.0189 |
| c          | 0.17 |      | 0.23 | 0.0067 |        | 0.0091 |
| ccc        |      |      | 0.1  |        |        | 0.0039 |
| D          | 4.8  | 4.9  | 5    | 0.189  | 0.1929 | 0.1969 |
| E          | 5.8  | 6    | 6.2  | 0.2283 | 0.2362 | 0.2411 |
| E1         | 3.8  | 3.9  | 4    | 0.1496 | 0.1535 | 0.1575 |
| e          | Ø    | 1.27 | 1.27 | 0.0157 | 0.05   | 0.05   |
| h          | 0.25 |      | 0.5  | 0.0098 |        | 0.0197 |
| k          | 0    |      | 8    | 0      |        | 8      |