

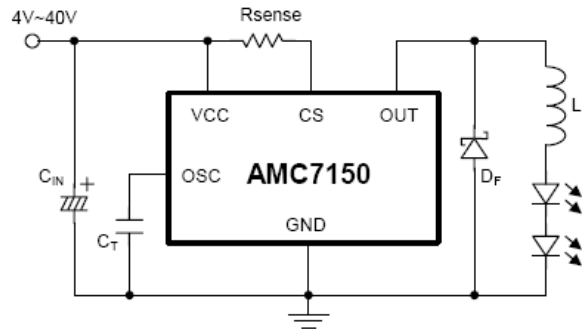
富微科技股份有限公司  
ADD MICROTECH CORP.

## AMC 7150 Bom List

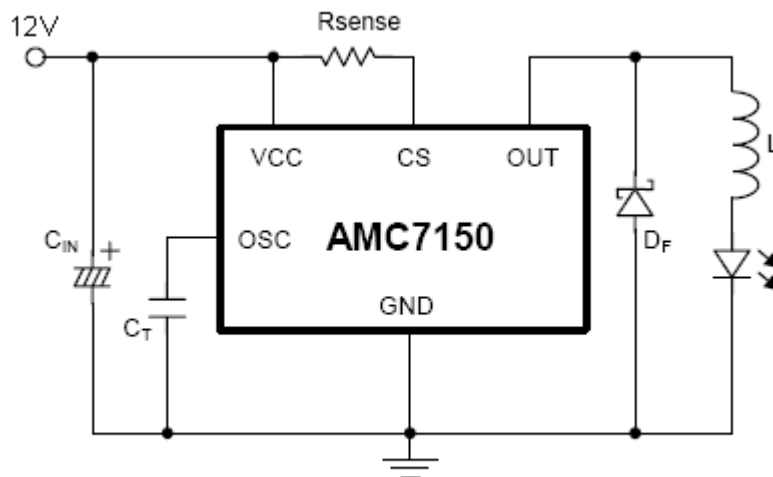
FAE Assistant Engineer : Jean Lee

### ● Typical Application

AMC7150 is a PWM power LED driver IC. The driving current from few milliamps up to 1.5A. It allows high brightness power LED operating at high efficiency from 4Vdc to 40Vdc. Up to 200KHz external controlled operation frequency. External resistor controlled the maximum output current to single LED or a LED string.

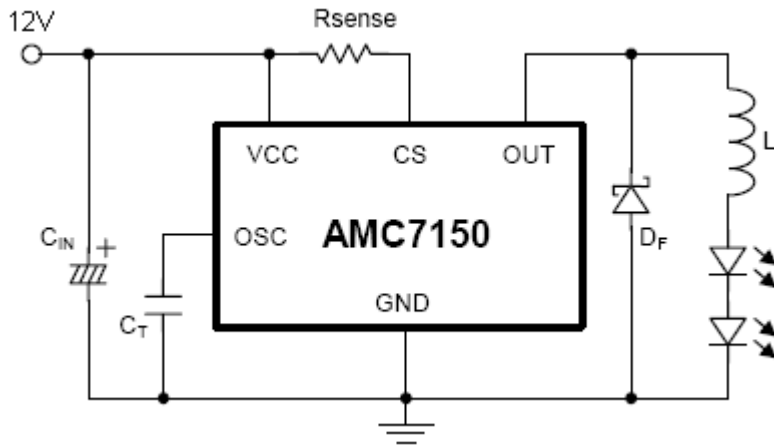


### ● Application circuit



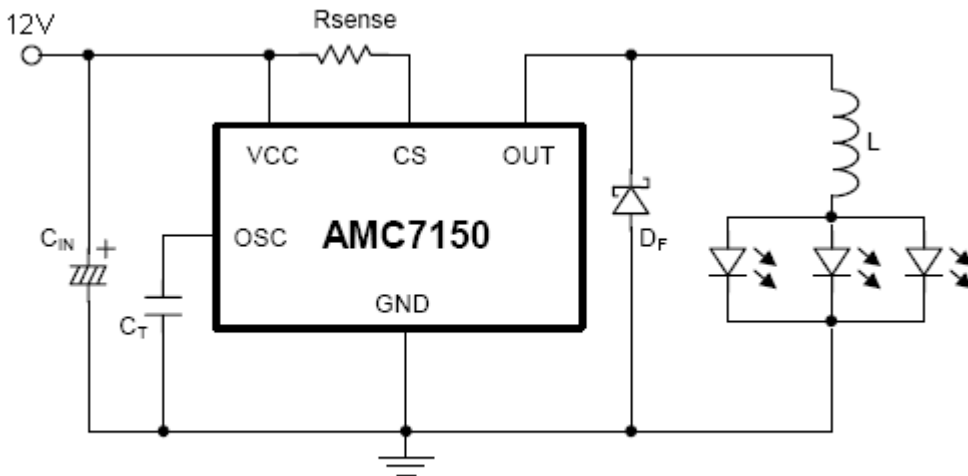
#### Type1 : 12V 1串

| Component     | Value                           | Package          | Actual Value                    | Note                              |
|---------------|---------------------------------|------------------|---------------------------------|-----------------------------------|
| AMC7150       |                                 | AMC7150DLF       |                                 |                                   |
| Cin           | 47 $\mu$ F16V                   | C Type           |                                 |                                   |
| Ct            | 680~820pF                       | Chip 0603        |                                 |                                   |
| <b>Rsense</b> | <b>0.87 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>0.84 <math>\Omega</math></b> | <b>I<sub>led</sub> =375~381mA</b> |
| DF            | 1N5819                          | SOD-123          |                                 |                                   |
| L             | 220 $\mu$ H                     | W:L=5.2:5.8      |                                 |                                   |



Type2 : 12V 2 串

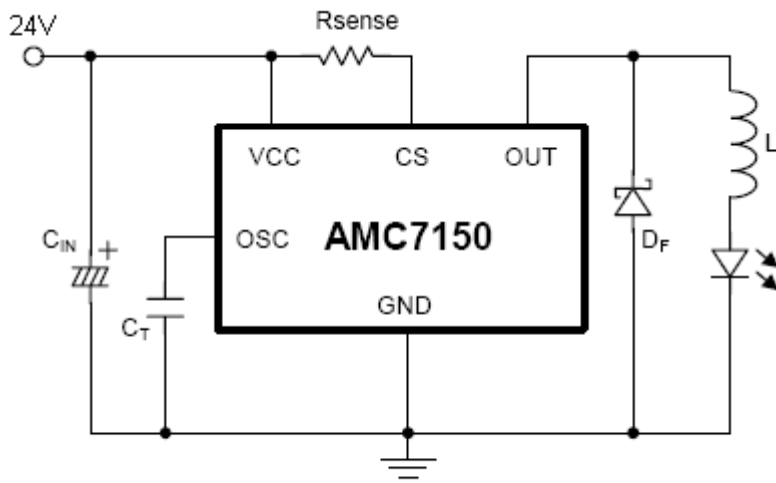
| Component                | Value                           | Packge           | Actual Value                    | Note                              |
|--------------------------|---------------------------------|------------------|---------------------------------|-----------------------------------|
| AMC7150                  |                                 | AMC7150DLF       |                                 |                                   |
| Cin                      | 47 $\mu$ F16V                   | C Type           |                                 |                                   |
| Ct                       | 680~820pF                       | Chip 0603        |                                 |                                   |
| <b>R<sub>sense</sub></b> | <b>0.83 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>0.84 <math>\Omega</math></b> | <b>I<sub>led</sub> =310~317mA</b> |
| DF                       | 1N5819                          | SOD-123          |                                 |                                   |
| L                        | 220 $\mu$ H                     | W:L=5.2:5.8      |                                 |                                   |



Type3 : 12V 3 並

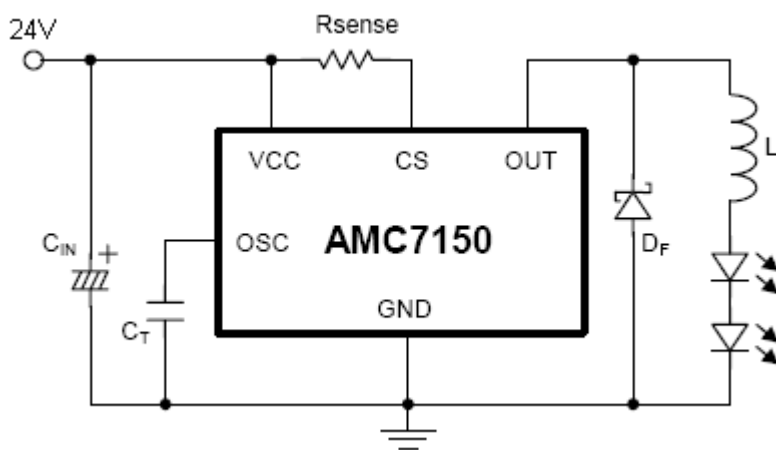
| Component                | Value                           | Packge           | Actual Value                   | Note                              |
|--------------------------|---------------------------------|------------------|--------------------------------|-----------------------------------|
| AMC7150                  |                                 | AMC7150DLF       |                                |                                   |
| Cin                      | 47 $\mu$ F16V                   | C Type           |                                |                                   |
| Ct                       | 680~820pF                       | Chip 0603        |                                |                                   |
| <b>R<sub>sense</sub></b> | <b>0.92 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>0.9 <math>\Omega</math></b> | <b>I<sub>led</sub> =362~313mA</b> |
| DF                       | 1N5819                          | SOD-123          |                                |                                   |

|   |             |             |  |             |
|---|-------------|-------------|--|-------------|
| L | 220 $\mu$ H | W:L=5.2:5.8 |  | 耐流需達 1~1.5A |
|---|-------------|-------------|--|-------------|



**Type4 : 24V 1 串**

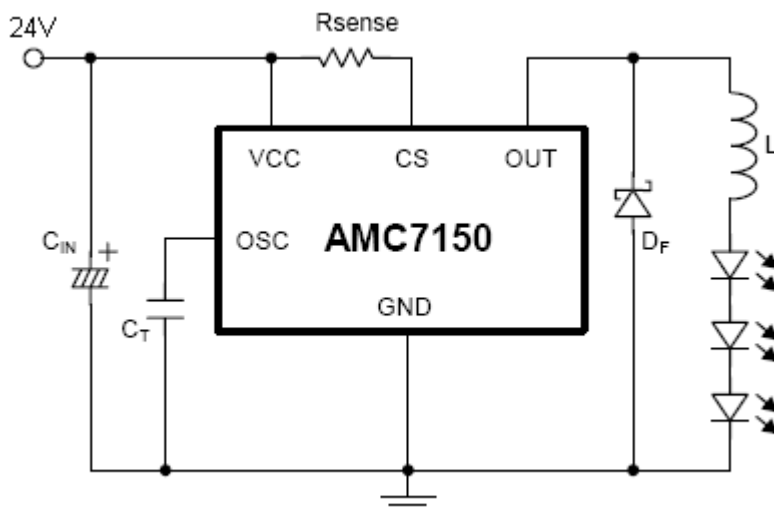
| Component     | Value                        | Packge           | Actual Value                 | Note                              |
|---------------|------------------------------|------------------|------------------------------|-----------------------------------|
| AMC7150       |                              | AMC7150DLF       |                              |                                   |
| Cin           | 47 $\mu$ F50V                | C Type           |                              | 耐壓 50V                            |
| Ct            | 680~820pF                    | Chip 0603        |                              |                                   |
| <b>Rsense</b> | <b>1 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>1 <math>\Omega</math></b> | <b>I<sub>led</sub> =361~352mA</b> |
| DF            | 1N5819                       | SOD-123          |                              |                                   |
| L             | 220 $\mu$ H                  | W:L=5.2:5.8      |                              |                                   |



**Type5 : 24V 2 串**

| Component     | Value                           | Packge           | Actual Value                    | Note                              |
|---------------|---------------------------------|------------------|---------------------------------|-----------------------------------|
| AMC7150       |                                 | AMC7150DLF       |                                 |                                   |
| Cin           | 47 $\mu$ F50V                   | C Type           |                                 | 耐壓 50V                            |
| Ct            | 680~820pF                       | Chip 0603        |                                 |                                   |
| <b>Rsense</b> | <b>0.87 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>0.84 <math>\Omega</math></b> | <b>I<sub>led</sub> =366~358mA</b> |

|    |             |             |  |  |
|----|-------------|-------------|--|--|
| DF | 1N5819      | SOD-123     |  |  |
| L  | 220 $\mu$ H | W:L=5.2:5.8 |  |  |



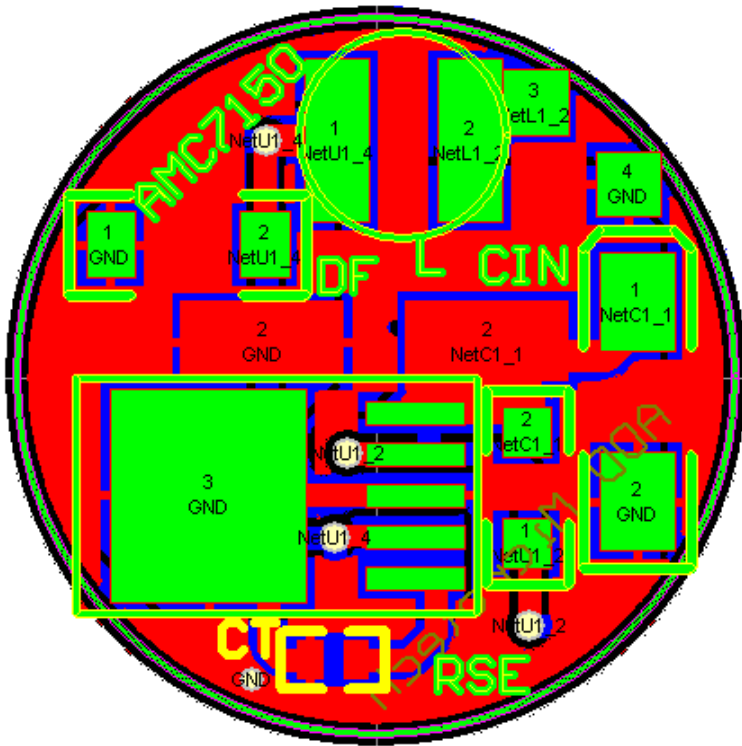
### Type6 : 24V 3 串

| Component                | Value                          | Packge           | Actual Value                                   | Note   |
|--------------------------|--------------------------------|------------------|--|--|
| AMC7150                  |                                | AMC7150DLF       |  |  |
| C <sub>in</sub>          | 47 $\mu$ F50V                  | C Type           |  | 耐壓 50V   |
| C <sub>t</sub>           | 680~820pF                      | Chip 0603        |  |  |
| <b>R<sub>sense</sub></b> | <b>0.8 <math>\Omega</math></b> | <b>Chip 1206</b> | <b>0.87 <math>\Omega</math></b><br><b>0.82</b> | <b>I<sub>led</sub> =303Ma</b><br><b>I<sub>led</sub> =311~302mA</b> |
| DF                       | 1N5819                         | SOD-123          |  |  |
| L                        | 220 $\mu$ H                    | W:L=5.2:5.8      |  |  |

\*因 case 時間太過於急促，所以採用某些替代電阻，經由實際測試後，將阻值及電流值記錄於上。

● Layout

Top Lay



Bottom Lay

