

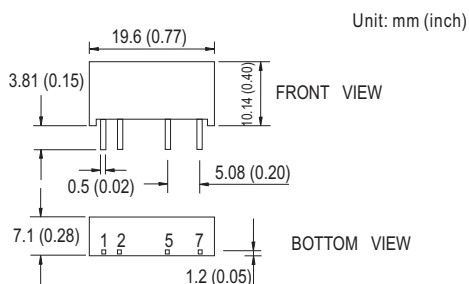
- Features :
  - 3000VDC I/O isolation
  - Internal SMD technology
  - Built-in EMI filter
  - Protection: Short circuit
  - Cooling by free air convection
  - Non-conductive plastic case
  - Single in line package
  - 100% full load burn-in test
  - Low cost / High reliability
  - 2 years warranty



## SPECIFICATION

| ORDER NO.           | SPU02L-05                    | SPU02M-05        | SPU02N-05  | SPU02L-12                    | SPU02M-12    | SPU02N-12  | SPU02L-15    | SPU02M-15    | SPU02N-15  |              |              |
|---------------------|------------------------------|------------------|--|------------------------------|--------------|------------|--------------|--------------|------------|--------------|--------------|
| OUTPUT              | DC OUTPUT VOLTAGE            |                  |  | 12V                          |              |            | 15V          |              |            |              |              |
|                     | CURRENT RANGE                |                  |  | 33 ~ 167mA                   |              |            | 27 ~ 133mA   |              |            |              |              |
|                     | EFFICIENCY (Typ.)            |                  | 77%  | 79%                          | 77%          | 80%        | 81%          | 80%          | 81%        | 83%          | 82%          |
|                     | RATED POWER                  |                  |  | 2W                           |              |            |              |              |            |              |              |
|                     | RIPPLE & NOISE (max.) Note.2 |                  |  | 100mVp-p                     |              |            |              |              |            |              |              |
|                     | LINE REGULATION Note.3       |                  |  | ±1.2% for 1% input variation |              |            |              |              |            |              |              |
|                     | LOAD REGULATION Note.4       |                  |  | ±8.0%                        |              |            |              |              |            |              |              |
|                     | VOLTAGE ACCURACY             |                  |  | ±2.0%                        |              |            |              |              |            |              |              |
| SWITCHING FREQUENCY |                              |                  | 100KHz min.  |                              |              |            |              |              |            |              |              |
| INPUT               | VOLTAGE RANGE                |                  | 4.5 ~ 5.5V   | 10.8 ~ 13.2V                 | 21.6 ~ 26.4V | 4.5 ~ 5.5V | 10.8 ~ 13.2V | 21.6 ~ 26.4V | 4.5 ~ 5.5V | 10.8 ~ 13.2V | 21.6 ~ 26.4V |
|                     | NORMAL VOLTAGE               |                  | 5V   | 12V                          | 24V          | 5V         | 12V          | 24V          | 5V         | 12V          | 24V          |
|                     | INPUT CURRENT                | Full load        | 520mA  | 214mA                        | 107mA        | 520mA      | 214mA        | 107mA        | 520mA      | 214mA        | 107mA        |
|                     |                              | No load          | 60mA   | 20mA                         | 15mA         | 60mA       | 20mA         | 15mA         | 60mA       | 20mA         | 15mA         |
|                     | FILTER                       |                  | Capacitor type   |                              |              |            |              |              |            |              |              |
| PROTECTION          |                              | Fuse recommended |  |                              |              |            |              |              |            |              |              |
| PROTECTION          | OVERLOAD                     |                  | Momentary  |                              |              |            |              |              |            |              |              |
|                     |                              |                  | Protection type : Broken   |                              |              |            |              |              |            |              |              |
| PROTECTION          | SHORT CIRCUIT                |                  | Momentary  |                              |              |            |              |              |            |              |              |
|                     |                              |                  | Protection type : Broken   |                              |              |            |              |              |            |              |              |
| ENVIRONMENT         | WORKING TEMP.                |                  | -40 ~ +71°C (Refer to output load derating curve)                        |                              |              |            |              |              |            |              |              |
|                     | WORKING HUMIDITY             |                  | 20% ~ 90% RH non-condensing  |                              |              |            |              |              |            |              |              |
|                     | STORAGE TEMP., HUMIDITY      |                  | -40 ~ +105°C, 10 ~ 95% RH  |                              |              |            |              |              |            |              |              |
|                     | TEMP. COEFFICIENT            |                  | ±0.03% / °C (0 ~ 50°C)   |                              |              |            |              |              |            |              |              |
|                     | VIBRATION                    |                  | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes |                              |              |            |              |              |            |              |              |
| SAFETY & EMC        | WITHSTAND VOLTAGE            |                  | I/P-O/P:3KVDC  |                              |              |            |              |              |            |              |              |
|                     | ISOLATION RESISTANCE         |                  | I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH                              |                              |              |            |              |              |            |              |              |
|                     | ISOLATION CAPACITANCE        |                  | 80pF max.  |                              |              |            |              |              |            |              |              |
|                     | EMC EMISSION                 |                  | Compliance to EN55022 Class B, FCC part 15 Class B                       |                              |              |            |              |              |            |              |              |
|                     | EMC IMMUNITY                 |                  | Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A    |                              |              |            |              |              |            |              |              |
| OTHERS              | MTBF                         |                  | 700khrs min. MIL-HDBK-217F(25°C)   |                              |              |            |              |              |            |              |              |
|                     | DIMENSION                    |                  | 19.6*7.1*10.2mm or 0.77**0.28**0.40" inch (L*W*H)                        |                              |              |            |              |              |            |              |              |
|                     | WEIGHT                       |                  | 2.3g   |                              |              |            |              |              |            |              |              |

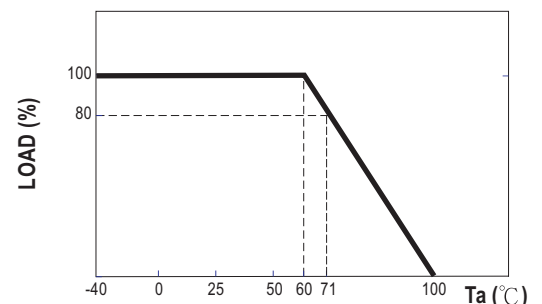
### Mechanical Specification



### Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | -Vin   |
| 5       | -Vout  |
| 7       | +Vout  |

### Derating Curve



- NOTE**
- All parameters are specified at normal input, rated load, 25°C 70% RH ambient.
  - Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
  - Line regulation is measured from low line to high line at rated load.
  - Load regulation is measured from 20% to 100% rated load.

# Mouser Electronics

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## Mean Well:

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