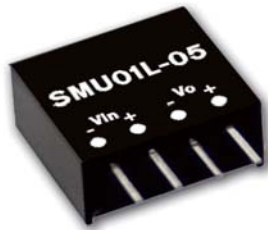




## 1W DC-DC Unregulated Single Output Converter

SMU01 series



## ■ Features :

- 1500VDC I/O isolation
- 3000VDC I/O isolation(optional)
- Operating temperature range of -40 ~ +85°C without derating
- Internal SMD technology
- Built-in EMI filter
- Cooling by free air convection
- Non-conductive plastic case
- SIP package
- Industry standard pinout
- 100% burn-in test
- Low cost / High reliability
- 2 years warranty

## ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

## SELECTION GUIDE

| ORDER NO.            | SMU01L-05 | SMU01M-05 | SMU01N-05 | SMU01L-09 | SMU01M-09 | SMU01N-09 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| DC OUTPUT VOLTAGE    | 5V        |           |           | 9V        |           |           |
| OUTPUT CURRENT RANGE | 0 ~ 200mA |           |           | 0 ~ 110mA |           |           |
| EFFICIENCY(Typ.)     | 77%       | 79%       | 78%       | 77%       | 79%       | 76%       |

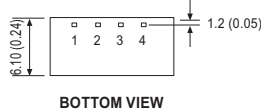
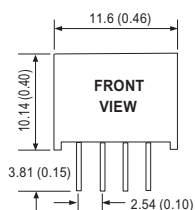
| ORDER NO.            | SMU01L-12 | SMU01M-12 | SMU01N-12 | SMU01L-15 | SMU01M-15 | SMU01N-15 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| DC OUTPUT VOLTAGE    | 12V       |           |           | 15V       |           |           |
| OUTPUT CURRENT RANGE | 0 ~ 84mA  |           |           | 0 ~ 67mA  |           |           |
| EFFICIENCY(Typ.)     | 78%       | 80%       | 77%       | 78%       | 80%       | 77%       |

## SPECIFICATION

|              |                               |                                                                                                                             |              |              |            |              |              |
|--------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------|--------------|------------|--------------|--------------|
| OUTPUT       | RATED POWER                   | 1W                                                                                                                          |              |              |            |              |              |
|              | 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(Typ.)     | 100KHz                                                                                                                      |              |              |            |              |              |
| 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 |
|              | NORMAL VOLTAGE                | 5V                                                                                                                          | 12V          | 24V          | 5V         | 12V          | 24V          |
|              | INPUT CURRENT                 | Full load                                                                                                                   | 265mA        | 110mA        | 57mA       | 265mA        | 110mA        |
|              |                               | No load                                                                                                                     | 32mA         | 15mA         | 11mA       | 32mA         | 15mA         |
|              | PROTECTION (FUSE RECOMMENDED) | 500mA                                                                                                                       | 250mA        | 150mA        | 500mA      | 250mA        | 150mA        |
|              | FILTER                        | Capacitor type                                                                                                              |              |              |            |              |              |
| PROTECTION   | OVERLOAD                      | Momentary                                                                                                                   |              |              |            |              |              |
|              |                               | Protection type : Broken                                                                                                    |              |              |            |              |              |
|              | SHORT CIRCUIT                 | Momentary                                                                                                                   |              |              |            |              |              |
|              |                               | Protection type : Broken                                                                                                    |              |              |            |              |              |
| ENVIRONMENT  | WORKING TEMP.                 | -40 ~ +90°C (Refer to "Derating Curve")                                                                                     |              |              |            |              |              |
|              | WORKING HUMIDITY              | 20% ~ 90% RH non-condensing                                                                                                 |              |              |            |              |              |
|              | STORAGE TEMP., HUMIDITY       | -55 ~ +125°C, 10 ~ 95% RH                                                                                                   |              |              |            |              |              |
|              | TEMP. COEFFICIENT             | ±0.05% / °C (0 ~ 50°C)                                                                                                      |              |              |            |              |              |
|              | VIBRATION                     | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes                                                    |              |              |            |              |              |
|              | SAFETY STANDARDS              | EAC TP TC 020/2011 approved                                                                                                 |              |              |            |              |              |
| SAFETY & EMC | WITHSTAND VOLTAGE             | I/P-O/P: 1.5KVDC                                                                                                            |              |              |            |              |              |
|              | ISOLATION RESISTANCE          | I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH                                                                                 |              |              |            |              |              |
|              | ISOLATION CAPACITANCE         | 80pF max.                                                                                                                   |              |              |            |              |              |
|              | EMI RADIATION                 | Compliance to BS EN/EN55032 Class B, FCC part 15 Class B, EAC TP TC 020                                                     |              |              |            |              |              |
|              | EMS IMMUNITY                  | Compliance to BS EN/EN61000-4-2,3,4,5,6,8 light industry level, criteria A, EAC TP TC 020                                   |              |              |            |              |              |
|              | MTBF                          | 700khrs min. MIL-HDBK-217F(25°C)                                                                                            |              |              |            |              |              |
| OTHERS       | DIMENSION (L*W*H)             | 11.6*6.1*10.14mm or 0.46**0.24**0.40" inch for 5V,12V input ; 11.6*7.4*10.14mm or 0.46**0.29**0.40" inch for 24V input      |              |              |            |              |              |
|              | PACKING                       | SMU01L/M: 1.3g ; 42pcs/per tube, 6720pcs/160 tube/per carton<br>SMU01N : 1.4g ; 42pcs/per tube, 6720pcs/160 tube/per carton |              |              |            |              |              |

## ■ Mechanical Specification

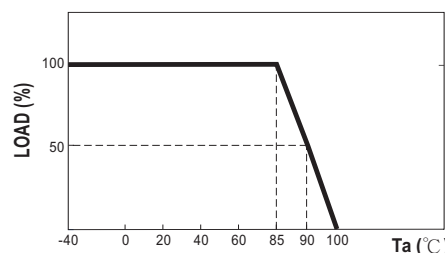
Unit: mm (inch)



## ■ Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | -Vin   |
| 2       | +Vin   |
| 3       | -Vout  |
| 4       | +Vout  |

## ■ Derating Curve



## NOTE

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

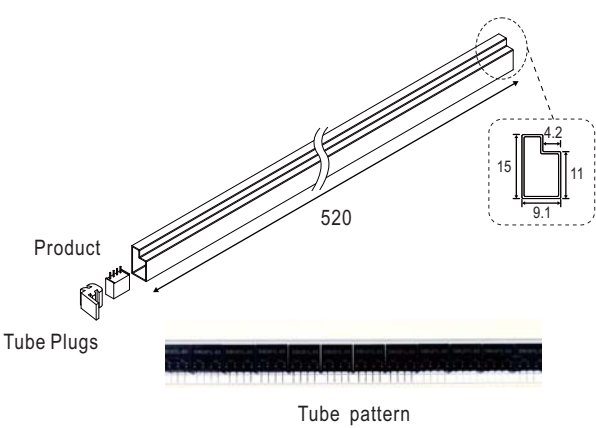
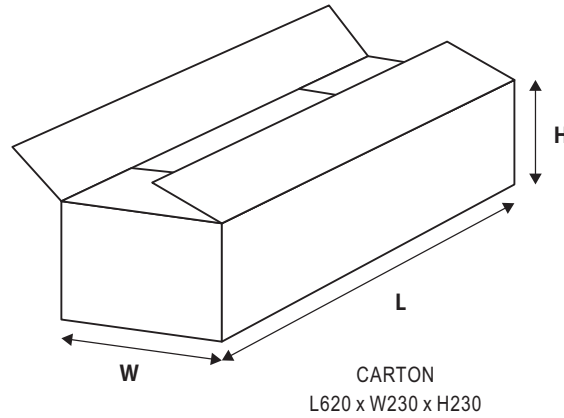
※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>



1W DC-DC Unregulated Single Output Converter

SMU01 series

Packing

| Standard Tube Packing                                                                                                                                                                                             | SMU01L/M                 |                  |                           |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------|---------------------------|--------------------|
|                                                                                                                                                                                                                   | MPQ<br>Per Tube<br>(PCS) | One Tube<br>G.W. | Max. Q'TY/<br>Carton(PCS) | One Carton<br>G.W. |
| <div>Unit : mm</div> <div></div> <div></div> | 42                       | 75g              | 6720                      | 12.8Kg             |
|                                                                                                                                                                                                                   | SMU01N                   |                  |                           |                    |
|                                                                                                                                                                                                                   | MPQ<br>Per Tube<br>(PCS) | One Tube<br>G.W. | Max. Q'TY/<br>Carton(PCS) | One Carton<br>G.W. |
|                                                                                                                                                                                                                   | 42                       | 90g              | 6720                      | 15.2Kg             |

Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>