



■ 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
- Dual in line 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. | SMA01L-05 | SMA01M-05 | SMA01N-05 | SMA01L-09 | SMA01M-09 | SMA01N-09 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| DC OUTPUT VOLTAGE | 5V | | | 9V | | |
| OUTPUT CURRENT RANGE | 0 ~ 200mA | | | 0 ~ 110mA | | |
| EFFICIENCY(Typ.) | 77% | 79% | 77% | 77% | 78% | 75% |

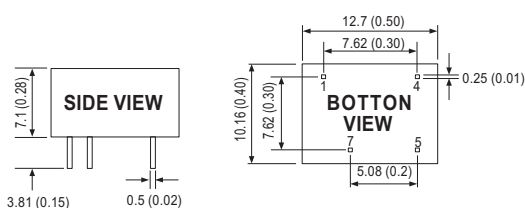
| ORDER NO. | SMA01L-12 | SMA01M-12 | SMA01N-12 | SMA01L-15 | SMA01M-15 | SMA01N-15 |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| DC OUTPUT VOLTAGE | 12V | | | 15V | | |
| OUTPUT CURRENT RANGE | 0 ~ 84mA | | | 0 ~ 67mA | | |
| EFFICIENCY(Typ.) | 78% | 80% | 78% | 79% | 79% | 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 | 57mA |
| | | No load | 32mA | 15mA | 11mA | 32mA | 15mA | 11mA |
| | PROTECTION (FUSE RECOMMENDED) | 500mA | 250mA | 150mA | 500mA | 250mA | 150mA | |
| PROTECTION | FILTER | Capacitor type | | | | | | |
| | 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 & EMC | SAFETY STANDARDS | EAC TP TC 020/2011 approved | | | | | | |
| | 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 | | | | | | |
| OTHERS | 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) | | | | | | |
| | DIMENSION (L*W*H) | 12.7*10.16*7.1mm or 0.50**0.40**0.28" inch for 5V,12V input ; 12.7*10.16*7.62mm or 0.50**0.40**0.30" inch for 24V input | | | | | | |
| | PACKING | 1.6g ; 40pcs/per tube, 6000pcs/150 tube/per carton | | | | | | |

■ Mechanical Specification

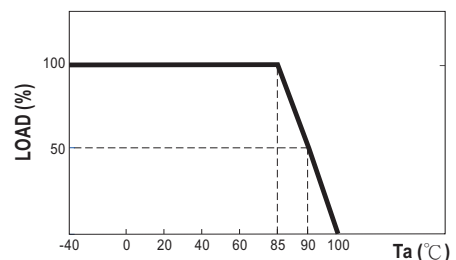
Unit: mm (inch)



■ Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1 | -Vin |
| 4 | +Vin |
| 5 | +Vout |
| 7 | -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>

■ Packing

| Standard Tube Packing | MPQ Per Tube (PCS) | One Tube G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
|---|--------------------|---------------|------------------------|-----------------|
| <p>Unit : mm</p> <p>Product</p> <p>Tube Plugs</p> <p>530</p> <p>12.25</p> <p>15.2</p> <p>5.2</p> <p>5.225</p> <p>Tube pattern</p> <p>40</p> <p>90g</p> <p>6000</p> <p>14.3Kg</p> <p>W</p> <p>L</p> <p>H</p> <p>CARTON</p> <p>L620 x W230 x H230</p> | 40 | 90g | 6000 | 14.3Kg |

■ Installation Manual

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