



### ■ Features

- DIP16 package with industry standard pinout
- 2:1 wide input range
- Operating temperature range -40 ~ +85°C
- No minimum load required
- Comply to BS EN/EN55032 radiated Class B without additional components
- High efficiency up to 82%
- Protections: Short circuit (Continuous) / Overload / Input under voltage
- 1.5KVDC I/O isolation
- 3 years warranty

### ■ Applications

- Telecom/datacom system
- Wireless network
- Industrial control facility
- Instrument
- Analyzer
- Detector
- Data switch

### ■ GTIN CODE

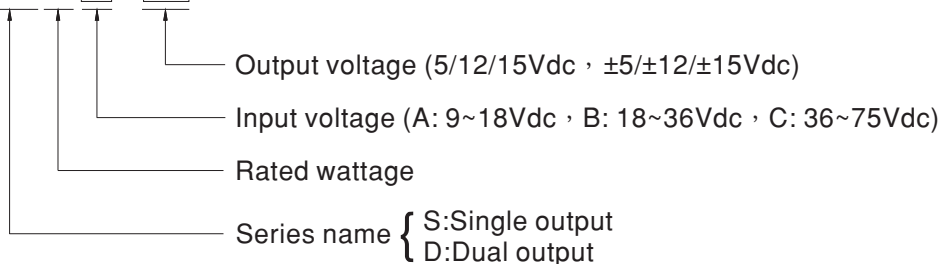
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

### ■ Description

SLC03 and DLC03 series are 3W isolated and regulated module type DC-DC converter with DIP16 package. It features international standard pins, a high efficiency up to 82%, wide working temperature range -40~+85°C, 1.5KVDC I/P-O/P isolation voltage, the compliance to BS EN/EN55032 radiated Class B without additional components, continuous-mode short circuit protection, etc. The models account for different input voltage, 9~18V, 18~36V and 36~75V 2:1 wide input range, and various output voltage, 5V/12V/15V for single output and ±5V/±12V/±15V for dual outputs, which are suitable for all kinds of systems, such as industrial control, telecommunication field, distributed power architecture, and so on.

### ■ Model Encoding

**S L C 0 3 A - 1 2**





| MODEL SELECTION TABLE |                       |               |           |                |                |                   |                       |
|-----------------------|-----------------------|---------------|-----------|----------------|----------------|-------------------|-----------------------|
| ORDER NO.             | INPUT                 |               |           | OUTPUT         |                | EFFICIENCY (TYP.) | CAPACITOR LOAD (MAX.) |
|                       | INPUT VOLTAGE (RANGE) | INPUT CURRENT |           | OUTPUT VOLTAGE | OUTPUT CURRENT |                   |                       |
|                       |                       | NO LOAD       | FULL LOAD |                |                |                   |                       |
| SLC03A-05             | 12V<br>(9 ~ 18V)      | 25mA          | 330mA     | 5V             | 600mA          | 79%               | 1000μF                |
| SLC03A-12             |                       | 15mA          | 320mA     | 12V            | 250mA          | 81%               | 470μF                 |
| SLC03A-15             |                       | 15mA          | 309mA     | 15V            | 200mA          | 81%               | 330μF                 |
| DLC03A-05             |                       | 30mA          | 325mA     | ±5V            | ±0 ~ 300mA     | 79%               | * 220μF               |
| DLC03A-12             |                       | 32mA          | 305mA     | ±12V           | ±0 ~ 125mA     | 82%               | *220μF                |
| DLC03A-15             |                       | 32mA          | 313mA     | ±15V           | ±0 ~ 100mA     | 81%               | *220μF                |
| SLC03B-05             | 24V<br>(18 ~ 36V)     | 10mA          | 154mA     | 5V             | 600mA          | 81%               | 1000μF                |
| SLC03B-12             |                       | 10mA          | 154mA     | 12V            | 250mA          | 82%               | 470μF                 |
| SLC03B-15             |                       | 10mA          | 153mA     | 15V            | 200mA          | 82%               | 330μF                 |
| DLC03B-05             |                       | 20mA          | 158mA     | ±5V            | ±0 ~ 300mA     | 79%               | *220μF                |
| DLC03B-12             |                       | 20mA          | 156mA     | ±12V           | ±0 ~ 125mA     | 81%               | *220μF                |
| DLC03B-15             |                       | 20mA          | 156mA     | ±15V           | ±0 ~ 100mA     | 80%               | *220μF                |
| SLC03C-05             | 48V<br>(36 ~ 75V)     | 7mA           | 77mA      | 5V             | 600mA          | 81%               | 1000μF                |
| SLC03C-12             |                       | 7mA           | 76mA      | 12V            | 250mA          | 82%               | 470μF                 |
| SLC03C-15             |                       | 7mA           | 76mA      | 15V            | 200mA          | 82%               | 330μF                 |
| DLC03C-05             |                       | 10mA          | 79mA      | ±5V            | ±0 ~ 300mA     | 80%               | *220μF                |
| DLC03C-12             |                       | 10mA          | 78mA      | ±12V           | ±0 ~ 125mA     | 80%               | *220μF                |
| DLC03C-15             |                       | 10mA          | 78mA      | ±15V           | ±0 ~ 100mA     | 80%               | *220μF                |

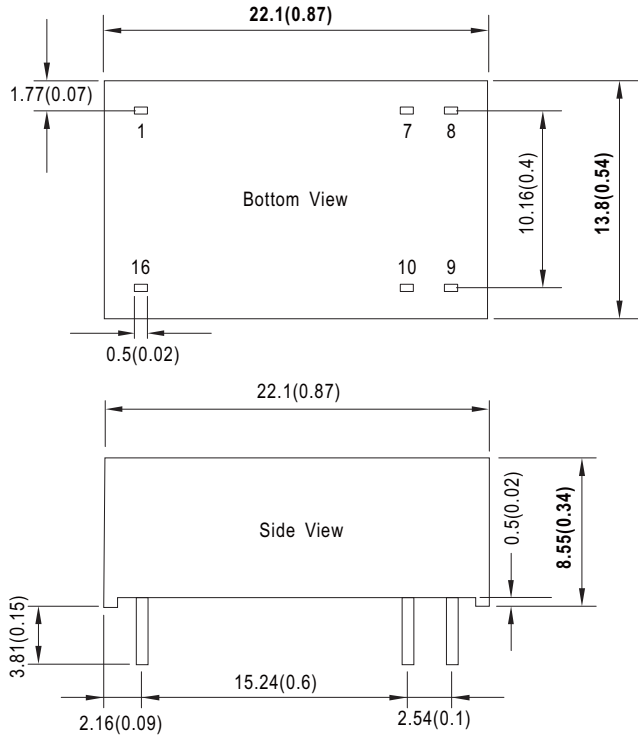
\* For each output



| SPECIFICATION                        |   |  |   |                            |
|--------------------------------------|---|--|---|----------------------------|
| INPUT                                | VOLTAGE RANGE   | A: 9~18Vdc , B: 18~36Vdc , C: 18~75Vdc   |   |                            |
|                                      | SURGE VOLTAGE (100ms max.)  | 12Vin models : 25Vdc ; 24Vin models : 50V ; 48Vin models : 100Vdc  |   |                            |
|                                      | FILTER  | Internal capacitor   |   |                            |
|                                      | PROTECTION  | Fuse recommended. 12Vin models: 1A Slow-Blow Type, 24Vin models: 0.5A Slow-Blow Type, 48Vin models: 200mA Slow-Blow Type |   |                            |
|                                      | INTERNAL POWER DISSIPATION  | 1000mW   |   |                            |
| OUTPUT                               | VOLTAGE ACCURACY  | ±2%  |   |                            |
|                                      | RATED POWER   | 3W   |   |                            |
|                                      | RIPPLE & NOISE <small>Note.2</small>  | 50mVp-p  |   |                            |
|                                      | LINE REGULATION <small>Note.3</small>   | ±0.2%  |   |                            |
|                                      | LOAD REGULATION <small>Note.4</small>   | ±0.5%  |   |                            |
|                                      | SWITCHING FREQUENCY (Typ.)  | 100KHz   |   |                            |
| PROTECTION                           | SHORT CIRCUIT   | Protection type : Continuous, automatic recovery   |   |                            |
|                                      | OVERLOAD  | 150 ~ 250% rated output power<br>Protection type : Recovers automatically after fault condition is removed               |   |                            |
|                                      | UNDER VOLTAGE LOCKOUT   | Start-up voltage   | 12Vin: 8.8Vdc, 24Vin: 17Vdc, 48Vin: 34Vdc |                            |
|                                      |   | Shutdown voltage   | 12Vin: 7Vdc, 24Vin: 14Vdc, 48Vin: 30Vdc   |                            |
| ENVIRONMENT                          | COOLING   | Free-air convection  |   |                            |
|                                      | WORKING TEMP.   | -40 ~ +85°C (Refer to "Derating Curve")  |   |                            |
|                                      | CASE TEMPERATURE  | +100°C max.  |   |                            |
|                                      | WORKING HUMIDITY  | 20% ~ 90% RH non-condensing  |   |                            |
|                                      | STORAGE TEMP., HUMIDITY   | -40 ~ +105°C, 10 ~ 95% RH non-condensing   |   |                            |
|                                      | TEMP. COEFFICIENT   | 0.03% / °C (0 ~ 80°C)  |   |                            |
|                                      | SOLDERING TEMPERATURE   | 1.5mm from case of 3 ~ 5sec./265°C max.  |   |                            |
|                                      | VIBRATION   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |   |                            |
| SAFETY & EMC <small>(Note.5)</small> | SAFETY STANDARDS  | EAC TP TC 020/2011 (EAC TP TC 004 for 48Vin type only) approved  |   |                            |
|                                      | WITHSTAND VOLTAGE   | I/P-O/P:1.5KVDC  |   |                            |
|                                      | ISOLATION RESISTANCE  | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH   |   |                            |
|                                      | ISOLATION CAPACITANCE (Typ.)  | 80pF   |   |                            |
|                                      | EMC EMISSION  | Parameter  | Standard                                  | Test Level / Note( Note.6) |
|                                      |   | Conducted  | BS EN/EN55032(CISPR32)                    | N/A                        |
|                                      |   | Radiated   | BS EN/EN55032(CISPR32)                    | Class B                    |
|                                      | EMC IMMUNITY  | Parameter  | Standard                                  | Test Level / Note          |
|                                      |   | ESD  | BS EN/EN61000-4-2                         | Level 3, ±8KV air          |
|                                      |   | Radiated Susceptibility  | BS EN/EN61000-4-3                         | Level 2, 3V/m              |
| EFT/Burest                           |   | BS EN/EN61000-4-4  | Level 1, 0.5KV                            |                            |
| Surge                                |   | BS EN/EN61000-4-5  | Level 2, 0.5KV Line-Line                  |                            |
| Conducted                            |   | BS EN/EN61000-4-6  | Level 2, 3V                               |                            |
| Magnetic Field                       |   | BS EN/EN61000-4-8  | Level 1, 1A/m                             |                            |
| OTHERS                               | MTBF  | 300Khrs min. MIL-HDBK-217F(25°C)   |   |                            |
|                                      | DIMENSION (L*W*H)   | 22.1*13.8*8.55mm (0.87*0.54*0.34 inch)   |   |                            |
|                                      | CASE MATERIAL   | Non-Conductive black plastic (UL 94V-0 rated)  |   |                            |
|                                      | PACKING   | 4.5g ; 36pcs/per tube, 1800pcs/50 tube/per carton  |   |                            |
| NOTE                                 | <p>1.All parameters are specified at normal input(A:12Vdc, B:24Vdc, C:48Vdc), rated load, 25°C 70% RH ambient.</p> <p>2.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf &amp; 47µf capacitor.</p> <p>3.Line regulation is measured from low line to high line at rated load.</p> <p>4.Load regulation is measured from 10% to 100% rated load.</p> <p>5.The final equipment must be re-confirm that it still meet EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>6.An external input filter capacitor is required if the module has to meet BS EN/EN61000-4-4, BS EN/EN61000-4-5.<br/>The filter capacitor Power Mate suggest: 220uF/100V.</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |  |   |                            |

### Mechanical Specification

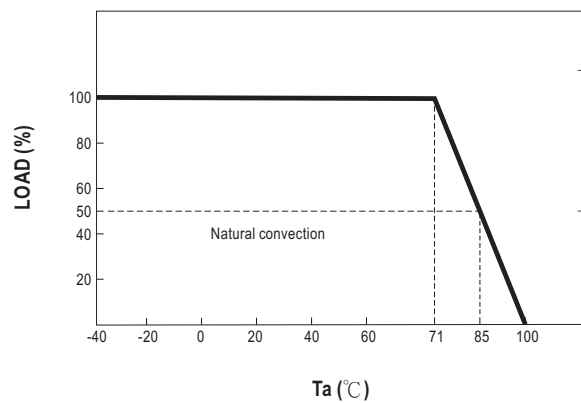
- All dimensions in mm(inch)
- Tolerance:  $x.x \pm 0.5\text{mm}$  ( $x.xx \pm 0.02"$ )  
 $x.xx \pm 0.25\text{mm}$  ( $x.xxx \pm 0.01"$ )
- Pin size is  $0.50 \times 0.30\text{mm}$  ( $0.02" \times 0.01"$ )
- Pin is Tolerance:  $x.xx \pm 0.07\text{mm}$  ( $x.xxx \pm 0.03"$ )



### Plug Assignment

| Pin No. | Pin-Out                  |                        |
|---------|--------------------------|------------------------|
|         | SLC03<br>(Single output) | DLC03<br>(Dual output) |
| 1       | -Vin                     | -Vin                   |
| 7       | N.C.                     | N.C.                   |
| 8       | N.C.                     | Common                 |
| 9       | +Vout                    | +Vout                  |
| 10      | -Vout                    | -Vout                  |
| 16      | +Vin                     | +Vin                   |

### Derating Curve



**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>      | 36                 | 220g          | 1800                   | 11.8Kg          |

**Installation Manual**

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