

## Features

- 1WATT SIP PACKAGE
- EFFICIENCY TO 85%
- 100% BURNED IN
- No-load Input Current as Low as 5mA
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- UNREGULATED OUTPUT TYPES



**1 Watt DC/DC  
Converter**

**1 Watt Dual O/P  
Isolated DC-DC Converter**

## Input Specifications

|                     |        |
|---------------------|--------|
| Input Voltage       | :24Vdc |
| Input Voltage Range | :±20%  |

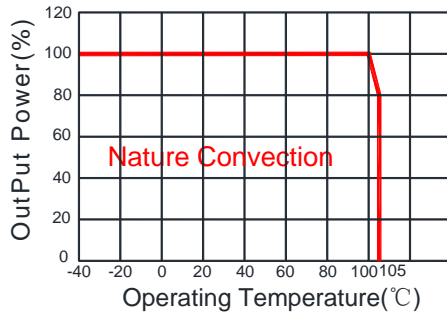
## Output Specifications

|                          |                           |                                |
|--------------------------|---------------------------|--------------------------------|
| Output Voltage           | :±12Vdc                   |                                |
| Output Voltage Accuracy  | :±5%                      | @Vout=±11.4~±12.6Vdc@Vin=24Vdc |
| Output Current           | :±42mA                    |                                |
| Efficiency               | :85% TYP                  |                                |
| Ripple / Noise           | :30mVp-p TYP, 75mVp-p MAX | @20MHz Bandwidth               |
| Short Circuit Protection | : Continuous              |                                |
| Line Regulation          | :±1.2% TYP                | @For 1.0% OF Vin               |
| Load Regulation          | :±7% TYP, ±10% MAX        | @10% to 100% full load         |
| Capacitive Load          | :±330uF MAX               |                                |

## General Specifications

|                             |                       |  |
|-----------------------------|-----------------------|--|
| Operating Temperature Range | : -40°C ~ +105°C      |  |
| Storage Temperature         | : -55°C ~ +125°C      |  |
| Switching Frequency         | : 250KHz TYP          |  |
| Humidity                    | : 95% MAX             |  |
| Isolation Voltage           | : 3000Vdc             | @ Input to Output ( 60sec/0.5mA )                            |
| Isolation Resistance        | : 1000MΩ MIN          | @ 500Vdc   |
| Cooling                     | : Free air convection |  |
| MTBF                        | : >3500000 Hours      | MIL-HDBK-217F@25°C, Ground Benign.                           |
| Case Material               | : DAP                 |  |
| Weight                      | : 2.1g TYP            |  |
| EMI                         | CE                    | CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit) |
|                             | RE                    | CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit) |
| EMS                         | ESD                   | IEC/EN61000-4-2 Air ±8kV , Contact ±4kV perf. Criteria B     |

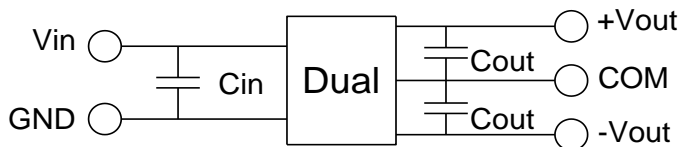
## Temperature Derating Graph



## Part Number

12DC - 24 D 12 N P H3  
 A B C D E F G  
 A:Series  
 B:Input Voltage  
 C:Dual Output  
 D:Output Voltage  
 E:Unregulated(N)  
 F:Protection  
 G:Isolation Voltage

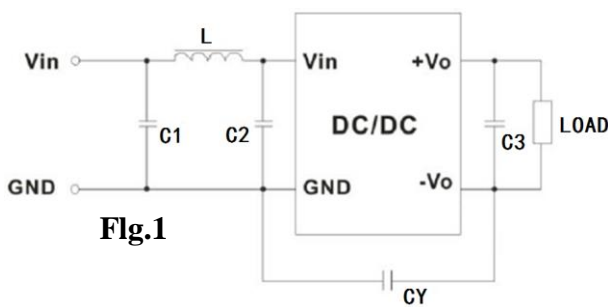
## Recommended Test Circuit



| Vin   | Cin     | Dual Vout | Cout     |
|-------|---------|-----------|----------|
| 24Vdc | 1μF/50V | ±12Vdc    | ±1μF/25V |

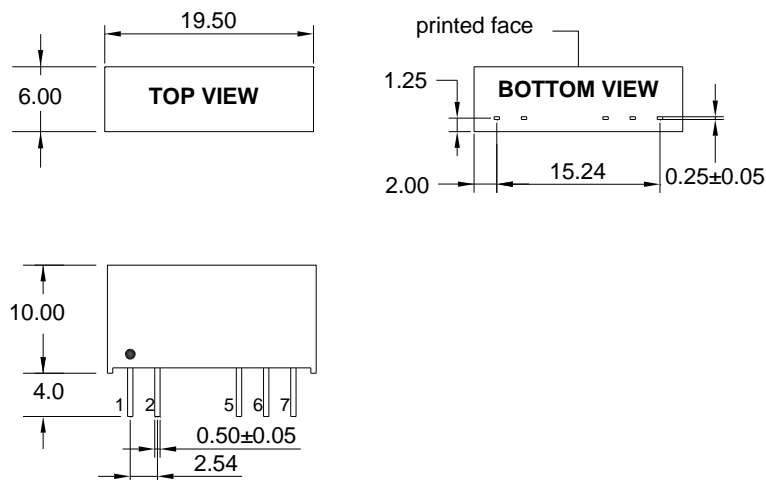
To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

## EMC (CLASS B) compliance circuit



| EMC recommended circuit value table |    |                          |
|-------------------------------------|----|--------------------------|
| EMI                                 | C1 | 4.7μF /50V               |
|                                     | C2 | 4.7μF /50V               |
|                                     | CY | 1nF/4kV                  |
|                                     | C3 | Recommended Test Circuit |
|                                     | L  | 6.8μH                    |

## Outline Dimensions



**UNIT:mm Unless otherwise specified,all tolerances are ±0.25**

| PIN  | 1    | 2    | 5     | 6   | 7     |
|------|------|------|-------|-----|-------|
| DUAL | +Vin | -Vin | -Vout | COM | +Vout |

**Packing Information:**

Weight----- 2.1grams/pcs

TUBE-----25pcs

Weight: 73g per tube



| Size(mm) |       |     |      |
|----------|-------|-----|------|
| A        | B     | C   | D    |
| 9.50     | 16.50 | 522 | 5.00 |

Outer carton unit: 2500pcs/100Tube/box

Weight: 7.5kg per carton

