

**Features**

- 3WATT DIL PACKAGE
- 4:1 WIDE INPUT VOLTAGES
- EFFICIENCY TO 80%
- 100% BURNED IN
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- REGULATED OUTPUT TYPES



**3 Watt DC/DC Converter**

WIDE INPUT VOLTAGE RANGE  
3 WATT DC-DC CONVERTER

**Input Specifications**

|                     |            |
|---------------------|------------|
| Input Voltage       | :5Vdc      |
| Input Voltage Range | :4.5-18Vdc |

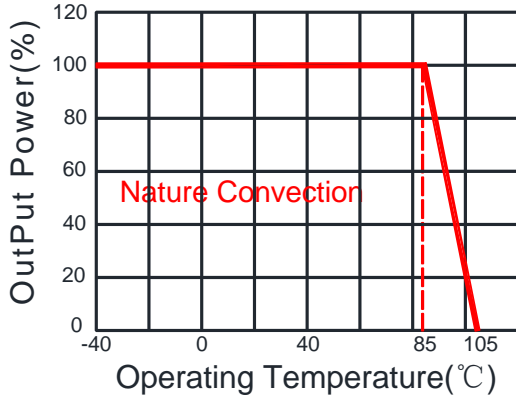
**Output Specifications**

|                          |               |                                    |
|--------------------------|---------------|------------------------------------|
| Output Voltage           | :12Vdc        |                                    |
| Output Voltage Accuracy  | :±2%          | @Vout=11.74-12.24Vdc@Vin=4.5-18Vdc |
| Output Current           | :250mA        |                                    |
| Efficiency               | :80% TYP      |                                    |
| Ripple / Noise           | :100mVp-p MAX | @20MHz Bandwidth                   |
| Short Circuit Protection | :Continuous   | @Automatics recovery               |
| Line Regulation          | :±0.5% MAX    | @LL to HL at Full Load             |
| Load Regulation          | :±1.0% MAX    | @0% to 100%FL                      |
| Capacitive Load          | :2700µF MAX   |                                    |

**General Specifications**

|                             |                      |                                   |
|-----------------------------|----------------------|-----------------------------------|
| Operating Temperature Range | :-40°C ~ +85°C       |                                   |
| Storage Temperature         | :-40°C ~ +100°C      |                                   |
| Switching Frequency         | :330KHz TYP          |                                   |
| Humidity                    | :95% MAX             |                                   |
| Isolation Voltage           | :3000Vdc             | @Input to Output ( 60sec/0.5mA )  |
| Isolation Resistance        | :1000MΩ MIN          | @ 500Vdc                          |
| Cooling                     | :Free air convection |                                   |
| MTBF                        | :>1500000 Hours      | MIL-HDBK-217F@25°C,Ground Benign. |
| Case Material               | :DAP                 |                                   |
| Weight                      | :12.8g TYP           |                                   |

Temperature Derating Graph

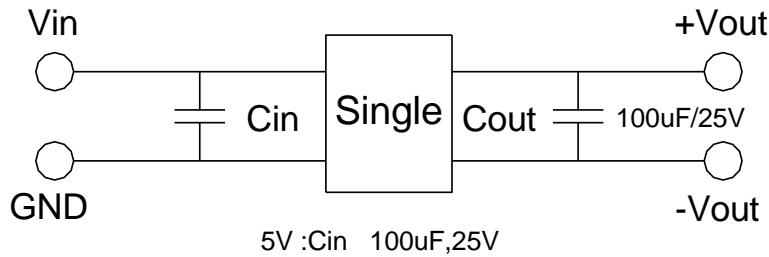


Part Number

68DC - 05 S 12 R 2 3  
 A B C D E F G

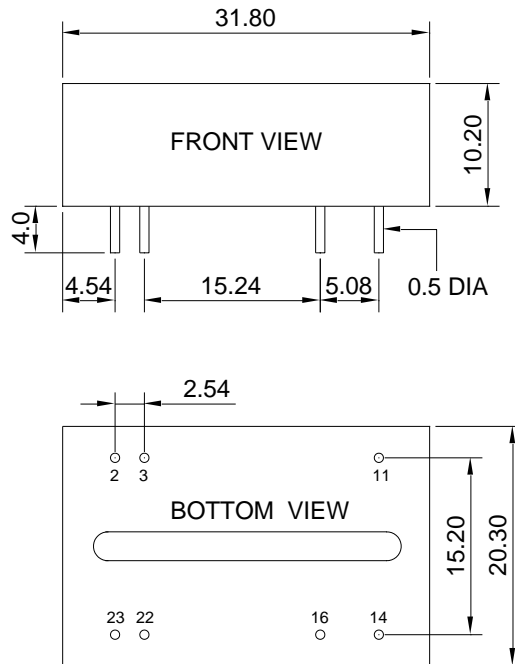
- A: Series
- B: Input Voltage
- C: Single Output
- D: Output Voltage
- E: Regulated(R)
- F: Package
- G: Output Power

Recommended Test Circuit



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.

Outline Dimensions



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

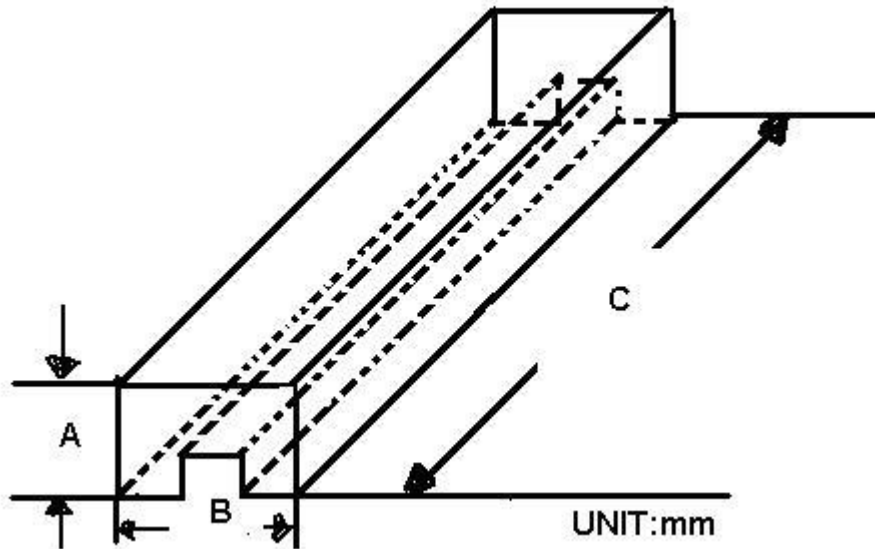
|               |      |      |    |       |       |      |      |
|---------------|------|------|----|-------|-------|------|------|
| <b>PIN</b>    | 2    | 3    | 11 | 14    | 16    | 22   | 23   |
| <b>Single</b> | -Vin | -Vin | NC | +Vout | -Vout | +Vin | +Vin |

**Packing Information:**

Weight----- 12.8grams/pcs

TUBE-----15pcs

Weight: 236g per tube



| Size(mm) |       |     |
|----------|-------|-----|
| A        | B     | C   |
| 18.71    | 23.00 | 522 |

Outer carton unit: 540pcs/36Tube/box

Weight: 9.5kg per carton

