

## Features

- Economical open frame power supply
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +85°C
- Efficiency up to 90%
- Non isolated, no need for heatsinks
- Short circuit protection



**NON-ISOLATED  
DC/DC Converter**

## Input Specifications

Input Voltage Range	:6.5~36Vdc
Input current no load	:2mA TYP

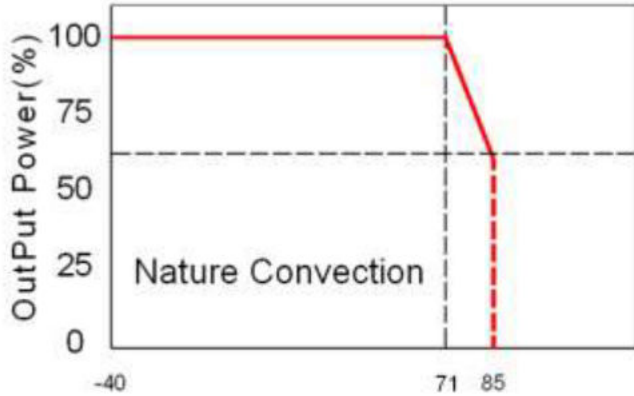
## Output Specifications

Output Voltage	:5Vdc	
Output Voltage Accuracy	:±3%	@Vout=4.85~5.15Vdc @Vin=6.5~36Vdc
Output Current	:500mA	
Efficiency	:90% TYP @Min Vin	
	:81% TYP @Max Vin	
Ripple / Noise	:100mVp-p MAX	@20MHz Bandwidth
Short Circuit Protection	:Continuous	@auto-recovery
Line Regulation	:±0.5% MAX	@ at Full Load
Load Regulation	:±1.0% MAX	@10% to 100% load

## General Specifications

Operating Temperature Range	: -40°C ~ +85°C (with derating)	Output load derate 2.86% per degree Celsius above 71°C as refer to temperature derating graph.
Storage Temperature	: -55°C ~ +125°C	
Switching Frequency	: 500KHz TYP	
Humidity	: 95% MAX	
Cooling	: Free air convection	
MTBF	: >5000x10 <sup>3</sup> Hours	MIL-HDBK-217F@25°C, Ground Benign.
Weight	: 0.75 g TYP	
Conducted Emission	: EN55022 Class A	
Radiated Emission	: EN55022 Class A	

**Temperature Derating Graph**



**Part Number**

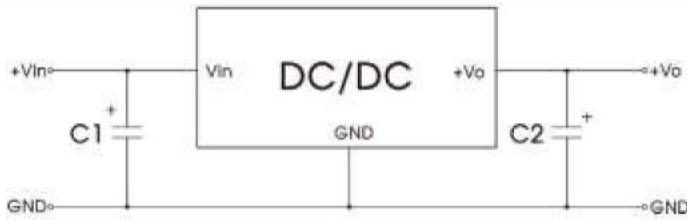
01DS – 05 – 500  
 A B C

A: Series

B: Output Voltage

C: Output Current

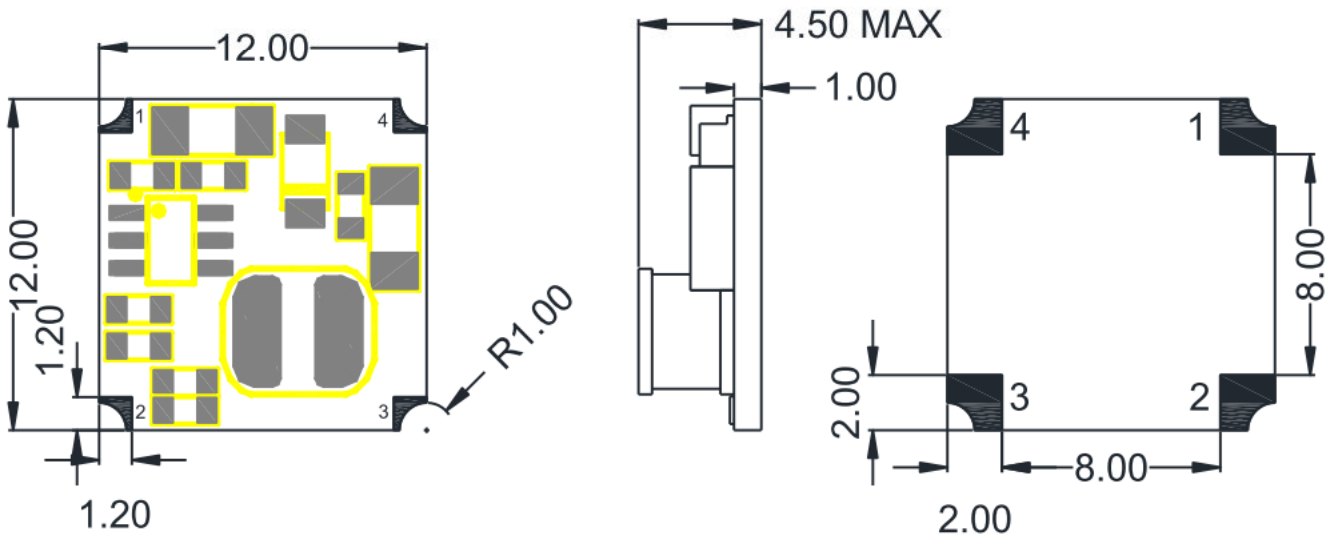
**Recommended Test Circuit**



Cin	Cout
10μF/50V	22μF/10V

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

**PIN Assignment**

PIN	1	2	3	4
FUNCTION	+Vin	NC	+Vout	GND