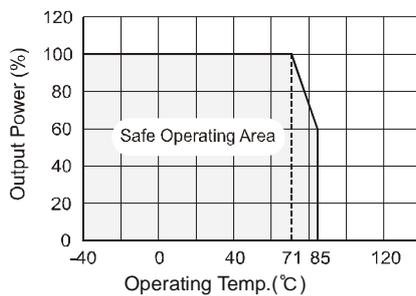




## OUTPUT SPECIFICATIONS

Item	Test Conditions	Min	Typ	Max	Units
Storage humidity				95	%
Operating temperature		-40		85	°C
Storage temperature		-55		125	
Temp. rise at full load			40	58	
Lead temperature	1.5mm from case for 10 seconds			300	
Short circuit protection		Continuous			
Cooling		Free air convection			
Case material		Plastic(UL94-V0)			
MTBF		3500			K hours
Weight			2.8		g

## TYPICAL TEMPERATURE CURVE



## OUTLINE DIMENSION & PIN CONNECTIONS

MECHANICAL DIMENSIONS		RECOMMENDED FOOTPRINT											
<p>Note: Unit:mm(inch) Pin section:0.50*0.30mm(0.020*0.012inch) Pin section tolerances:±0.10mm(±0.004inch) General tolerances:±0.25mm(±0.010inch)</p>													
<p>FOOTPRINT DETAILS</p> <table border="1"> <thead> <tr> <th>Pin</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Vin</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>4</td> <td>0V</td> </tr> <tr> <td>6</td> <td>+Vo</td> </tr> </tbody> </table>		Pin	Function	1	Vin	2	GND	4	0V	6	+Vo	<p>TUBE OUTLINE DIMENSIONS</p> <p>Note: Unit:mm[inch] General tolerances: ±0.50mm[±0.020inch] L=530mm[20.866inch] Tube Quantity: 25pcs L=220mm[8.661inch] Tube Quantity: 10pcs</p>	
Pin	Function												
1	Vin												
2	GND												
4	0V												
6	+Vo												

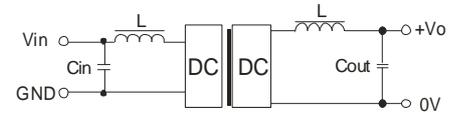
## APPLICATION NOTE

### Requirement on output load

To ensure this module can operate efficiently and reliably, During operation, the minimum output load **could not be less than 10% of the full load**. If the actual output power is very small, please connect a resistor with proper resistance at the output end in parallel to increase the load, or use our company's products with a lower rated output power.

### Recommended circuit

If you want to further decrease the input/output ripple, an "LC" filtering network may be connected to the input and output ends of the DC/DC converter, see (Figure 1).



(Figure 1)

It should also be noted that the inductance and the frequency of the "LC" filtering network should be staggered with the DC/DC frequency to avoid mutual interference. However, the capacitance of the output filter capacitor must be proper. If the capacitance is too big, a startup problem might arise. For every channel of output, provided the safe and reliable operation is ensured, the greatest capacitance of its filter capacitor sees (Table 1).

EXTERNAL CAPACITOR TABLE (Table 1)

Vin (VDC)	Cin (uF)	Vout (VDC)	Cout (uF)
5	4.7	5	4.7
12	2.2	-	-
15	1	-	-
24	0.47	-	-

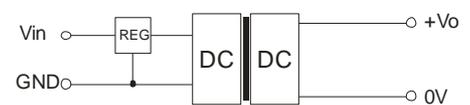
It's not recommended to connect any external capacitor in the application field with less than 0.5 watt output.

### Overload Protection

Under normal operating conditions, the output circuit of these products has no protection against over-current. The simplest method is to connect a self-recovery fuse in series at the input end or add a circuit breaker to the circuit.

### Input Over-voltage Protection Circuit

The simplest device for input over-voltage protection is a linear voltage regulator with overheat protection that is connected to the input end in series (Figure 2).



(Figure 2)

**When the environment temperature is higher than 71°C, the product output power should be less than 60% of the rated power.**

**No parallel connection or plug and play.**