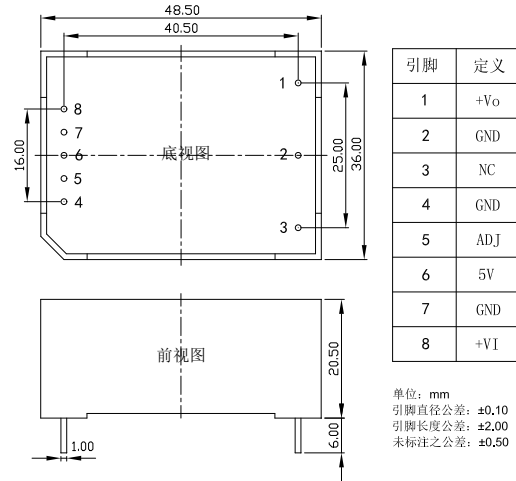
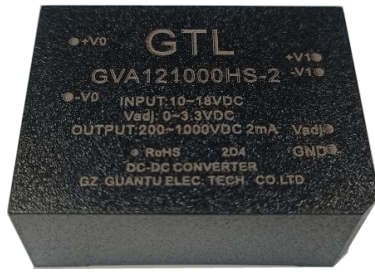


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GVA121000HS-2

Non-isolated DC-DC Power Supply Module

Adjustable High Voltage Output

Product Characteristics

- Input voltage range, 10-18VDC
- Adjustable high voltage output, 200-1000VDC
- Small size with DIP package assemble
- High reliability, industrial grade
- No minimum load requirement
- Applications, industrial equipment

Model Selection Table

Model	Dimension	Vin	Vo	Io	Efficiency (TYP)
GVA121000HS-2	48.5*36.0*20.5mm	Rated, 12VDC Range, 10-18VDC	200-1000VDC Adjustable	2mA	50%

TYP efficiency test condition, Vin = 12VDC, Vo = 1000V, Io = 2mA

Main Characteristics

Item	Test Condition / Description	MIN	TYP	MAX
Input voltage range		10VDC	12VDC	18VDC
Standby loss	Vin = 12VDC, Vo = 1000VDC	-	0.9W	-
Output voltage range	Vadj = 0-3.3V	200V	-	1000V
Output current range		0	-	2mA
Ripple and noise*	20MHz BW, Vp-p, Vo = 1000VDC	-	5.6V	-
Output OCP		≥ 1.1*Io, Self recovery		
Output SCP		Self recovery		

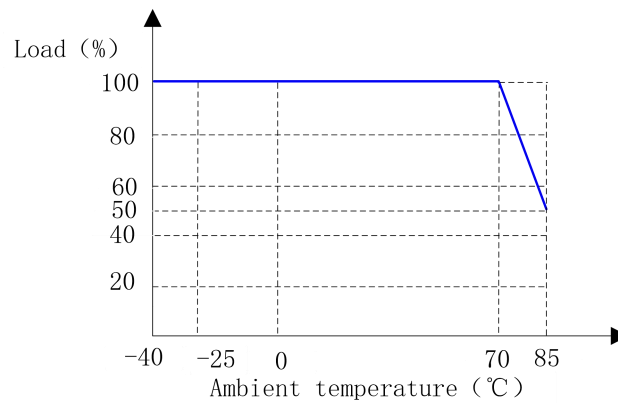
Remark *: Oscilloscope probe should be connected with a high voltage CBB capacitor of 0.1 μF/1500V

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General Characteristics

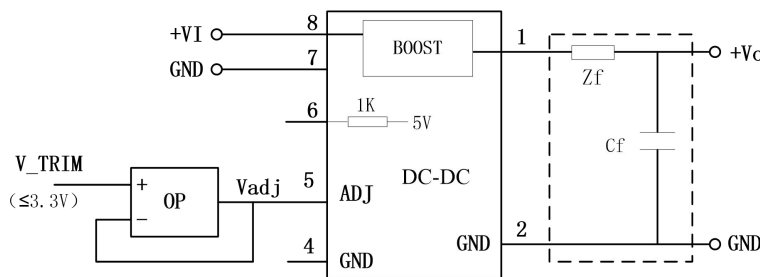
Item	Test Condition / Description	MIN	TYP	MAX
Working temperature		-40℃	-	+80℃
Storage temperature		-40℃	-	+105℃
Storage humidity		-	-	85%RH
Switching frequency		-	80kHz	-
Cooling method		Natural air cooling		
Hot plug		Prohibited		
Paralleled working		Prohibited		
Cooling method		Natural air cooling		

Derating Curves



Application Notes

1. Recommendation A



调节电压 Vadj	输出电压 +Vo
0V	200V (±2%)
0.8V	400V (±2%)
1.6V	600V (±2%)
2.4V	800V (±2%)
3.2V	1000V (±2%)

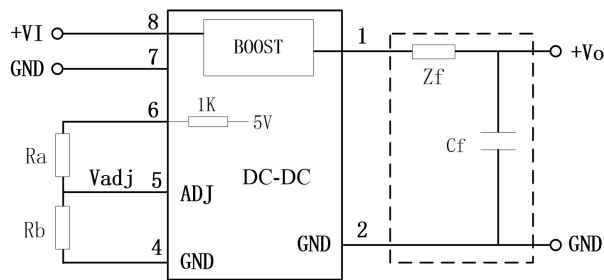
Note1, Zf and Cf make up of a L-C filter to get more lower output ripple.

Note2, V_TRIM should be less than 3.3V, otherwise over voltage may occur which may damage the PSU.

Note3, If ADJ (PIN5) is float, not connected with any circuit, output voltage should be 200VDC.

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2. Recommendation B



V_{adj} can be calculated by

$$V_{adj} = \frac{R_b}{1 + R_a + R_b}$$

R_a , R_b : unit is $k\Omega$.

Output voltage can be checked reference to "Recommendation A".

Notes:

- If not specified, the test condition is ambient temperature 25°C , humidity $< 75\%$, input typical voltage and output rated load.
- All parameters listed in the data sheet are tested according to the company's enterprise standards.
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