

1.2W, Fixed input voltage,
non-isolated & adjustable single output



Patent Protection RoHS

FEATURES

- Low ripple
- 0-600V continuous output with linear adjustable function
- Output short circuit, over-current protection
- Operating temperature range: -40℃ to +85℃
- CE meet CISPR32/EN55032 CLASS A, without external components

HO1-P601-2C is 1.2W DC-DC product with fixed input voltage, operating temperature of -40℃ to +85℃, output short circuit protection, over-current protection. Widely used in ultrasonoscope, Photomultiplier Tubes, Avalanche Photodiodes, Solid State Detectors, EO Lenses, Piezo Devices, Capacitor Charging fields.

Selection Guide

Part No.	Input Voltage (VDC)		Output Voltage(VDC)		Output Current (mA) (Max./Min.)
	Nominal (Range)	Max.	Nominal	Range	
HO1-P601-2C	12 (10.8-13.2)	15	600	0-600	2/0

Input Specifications

Input specifications					
Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Current (no-load)	Nominal input / output voltage	--	--	60	mA
Starting Time	Nominal input / output voltage and constant resistance load	--	--	120	ms
Starting Voltage		--	--	10.8	VDC
Input Under-voltage Protection	Starting voltage	--	--	10.8	
	Shutdown voltage	7.8	--	--	
Input Filter		PI filter			
Hot Plug		Unavailable			

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Adjustment Point Accuracy	See Fig 1 Typical characteristic curves	--	±1	±2	%
Line Regulation	Input voltage range	--	±0.05	±0.1	
Load Regulation	0%-100% load	--	±0.05	±0.1	
Temperature Coefficient	Nominal output voltage & Full load	--	--	±0.01	%/℃
Time Coefficient	Nominal output voltage & Full load, works for 8 hours after preheating for 30 minutes	--	--	±0.05	%/hour
Ripple		--	15	30	mVp-p
Output Over-current Protection	Input voltage range	110	--	200	%Io
Short circuit Protection		Continuous, self-recovery			

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-40	--	+85	°C
Storage Temperature		-55	--	+125	
Pin Soldering Resistance Temperature	Soldering spot is 1.5mm away from case for 10 seconds	--	--	+300	
Storage Humidity	Non-condensing	5	--	95	%RH
Switching Frequency	PWM mode	--	95	--	KHz
MTBF	MIL-HDBK-217F@25°C	1000	--	--	K hours

Physical Specifications

Casing Material	Black plastic; flame-retardant and heat-resistant (UL94-V0)
Dimension	46.00 x 25.70 x 15.50mm
Weight	32g(Typ.)
Cooling Method	Free air convection

Electromagnetic Compatibility (EMC)

EMI	CE	CISPR32/EN55032	CLASS A (without external component)
	RE	CISPR32/EN55032	CLASS B (without external component)

Product Characteristic Curve

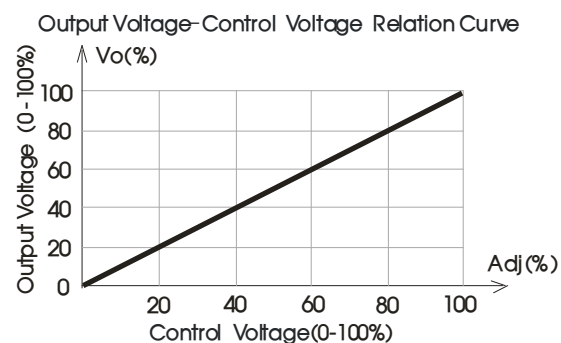


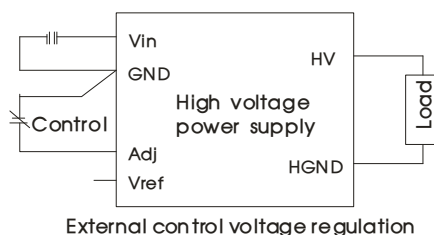
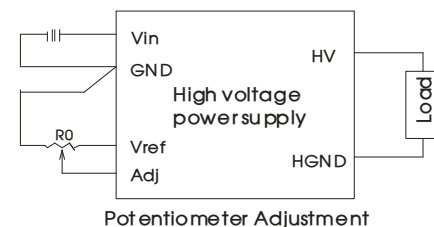
Fig. 1

Notes: 100%Vo=602VDC (Typ.), 100%Adj=2.5VDC (Typ.)

Design Reference

1. Typical application

Output voltage can be programmed by external voltage or potentiometer, see Fig 2



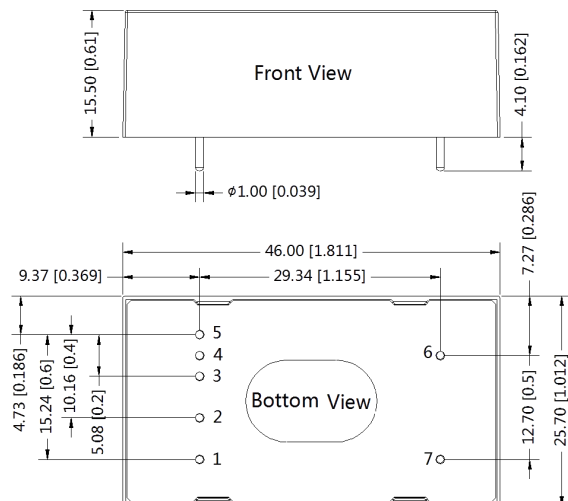
R0	Vref	Control Voltage
10K Adjustable Resistance	2.5VDC	0-2.5VDC

Fig. 2 Output Voltage External Programming

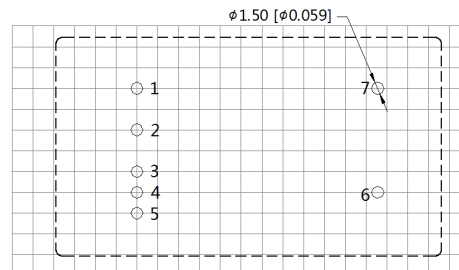
2. For more information please find DC-DC converter application notes on www.mornsun-power.com

Horizontal Package Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



Note:
Unit: mm[inch]
Pin diameter tolerances: ± 0.10 [± 0.004]
General tolerances: ± 0.50 [± 0.020]



Note: Grid 2.54*2.54mm

Pin-Out	
Pin	Function
1	Vin
2	GND
3	No pin
4	Adj
5	Vref
6	HV
7	GND

Notes:

- For additional information on Product Packaging please refer to www.mornsun-power.com. Horizontal packaging bag number 58220011;
- Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25^{\circ}\text{C}$, humidity<75%RH with nominal input /output voltage and rated output load;
- All index testing methods in this datasheet are based on company corporate standards;
- We can provide product customization service, please contact our technicians directly for specific information;
- Products are related to laws and regulations: see "Features";
- Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

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