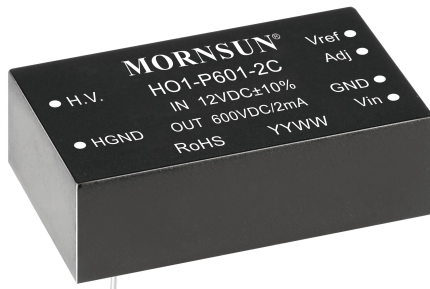


1.2W, Fixed input voltage,
non-isolated & adjustable single output



Patent Protection RoHS



HO1-P601-2C is 1.2W DC-DC product with fixed input voltage, operating temperature of -40°C to +85°C, 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.

FEATURES

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

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

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	%/°C
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

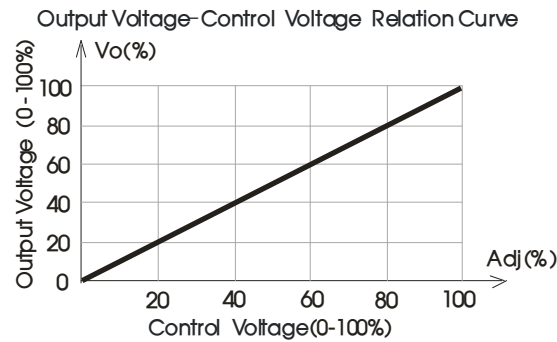
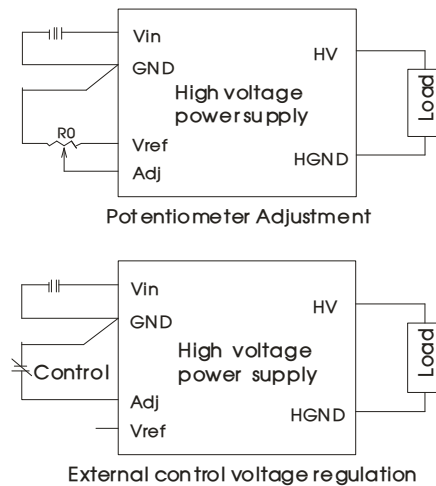


Fig. 1
Notes: 100%Vo=602VDC (Typ.), 100%Adj=2.5VDC (Typ.)

Design Reference

1. Typical application

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



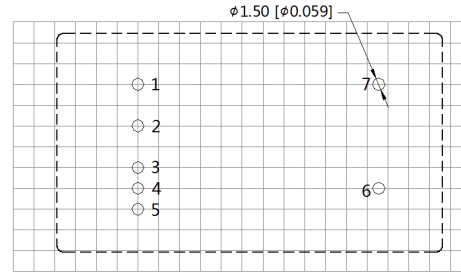
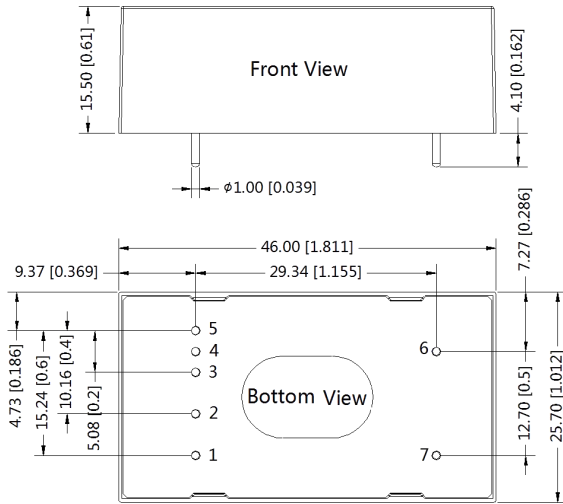
R0	Vref	Control Voltage
10K Adjustable Resistance	2.5VDC	0-2.5VDC

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: Grid 2.54*2.54mm

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

Note:
Unit: mm[inch]
Pin diameter tolerances: $\pm 0.10[\pm 0.004]$
General tolerances: $\pm 0.50[\pm 0.020]$

Notes:

1. For additional information on Product Packaging please refer to www.mornsun-power.com. Horizontal packaging bag number 58220011;
2. 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;
3. All index testing methods in this datasheet are based on company corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. Products are related to laws and regulations: see "Features";
6. 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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