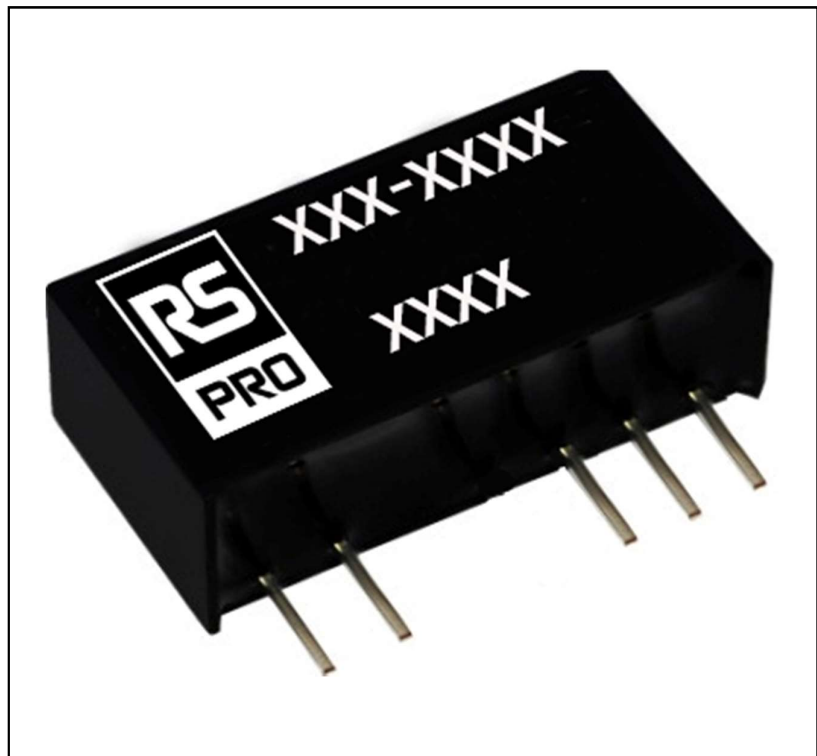


Features

- High power density
- Low ripple noise
- Short circuit protection
- High reliability
- ROHS compliant

RS PRO DC - DC Converter

RS Stock No.: 0633300 0633301 0633302
0633303 0633237 0633238 0633239 0633241
0633242 0633243 0633244 0633245



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

Buy this product from www.rspro.com

- Small volume, high power density
- Wide temperature performance at full 1 watt load: -40 °C ~+85 °C
- International standard SIP package, save PCB installation space
- Typical efficiency up to 89%
- High Reliability (MTTF≥350 ten thousand hours)

Electrical Specifications

RS Stock#	Input Voltage (Vdc)	Output Voltage (Vdc)	Output Current (mA)	Efficiency (Typ)	Maximum capacity load
0633300	5(4.5-5.5)	±3.3	±152	84%	1000uF
0633301	5(4.5-5.5)	±5	±100	84%	1000uF
0633302	5(4.5-5.5)	±12	±42	84%	1000uF
0633303	5(4.5-5.5)	±15	±33	88%	680uF
0633237	5(4.5-5.5)	±24	±21	85%	680uF
0633238	12(10.8-13.2)	±3.3	±152	84%	1000uF
0633239	12(10.8-13.2)	±5	±100	85%	1000uF
0633241	12(10.8-13.2)	±12	±42	88%	820uF
0633242	12(10.8-13.2)	±24	±21	84%	820uF
0633243	24(21.6-26.4)	±5	±100	85%	1000uF
0633244	24(21.6-26.4)	±12	±42	85%	470uF
0633245	24(21.6-26.4)	±24	±21	84%	470uF

General Specifications

Output Voltage	See Electrical Specifications
Input Voltage Range	See Electrical Specifications
Power Rating	1 W
Input Voltage Nominal	See Electrical Specifications
Output Current	See Electrical Specifications
Mounting Type	SIP
Isolated	Yes
Number of Outputs	1
Output Voltage Adjustment Range	nonsupport
Package	Plastic pipe installation
Isolation Voltage	1500Vdc 1Min
Width	19.6mm
Depth	10mm
Length	6mm
Railway Approved	No
Load Regulation	15% Max
Medical Approved	No
Efficiency	81%-88%

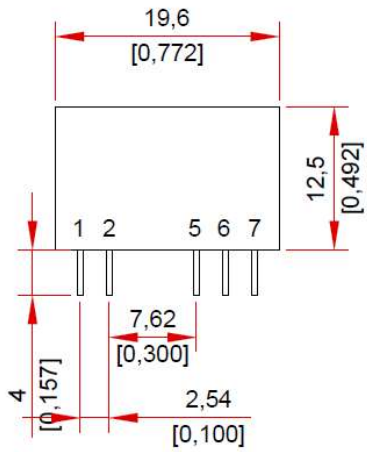
Operation Environment

Maximum Operating Temperature	85°C
Minimum Operating Temperature	-40°C

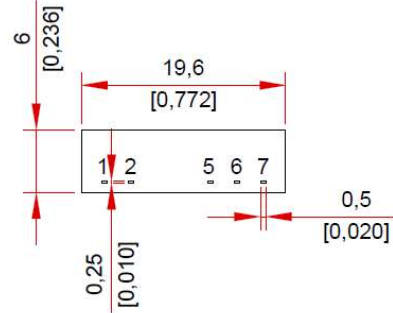
Approvals

Compliance/Certifications	CE
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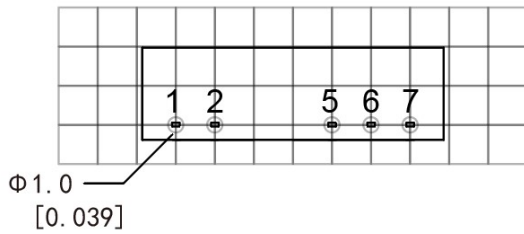
Interview Diagram



Bottom attempting



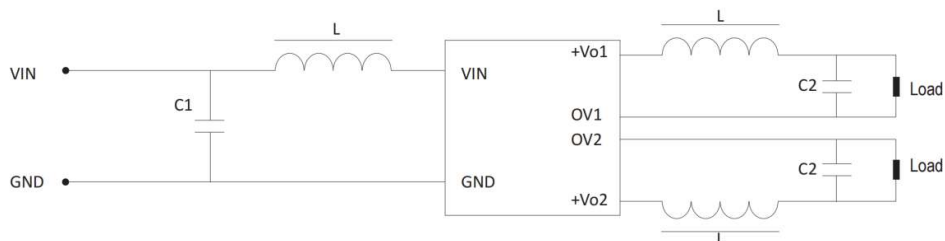
Recommended PCB size diagram

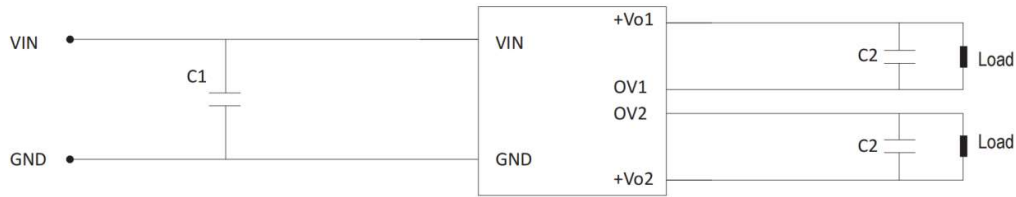


Pin definition

Pin	Single	Dual
1	Vin	Vin
2	Gnd	Gnd
5	0V	-Vo
6	No Pin	0V
7	+Vo	+Vo

LC filtering circuit





Input		Output	
Input Voltage	C1	Output Voltage	C2
3.3V/5V	4.7UF	3.3V/5V	4.7UF
8V	4.7UF	9V	2.2UF
12V	2.2UF	12V	1UF
15V	2.2UF	15V	0.47UF
24V	1UF	24V	0.47UF

Try To Avoid No-load Use: If the load power consumption is less than 10% of the rated output power of the module, it is recommended to connect a dummy load to the output terminal or select a module with a lower rated power.

The dummy load (resistance) can be calculated by 10% of the rated power of the module, and the resistance value is $R=U^2 / (10\% \times 1W)$.

Avoid Excessive Output External Capacitance: The capacity value of the output external capacitor C2 should not be too large, otherwise it is easy to cause overcurrent or bad startup when the module is started. The specific value should be selected according to the external capacitor table.

The input of this series does not support parallel use of hot plug and output.

For situations requiring high ripple noise, external LC filter circuit should be connected, and the resonant frequency of LC filter should be far less than the switching frequency of DC/DC module to prevent mutual interference, resulting in output ripple increase or module damage, please refer to:LC filtering circuit