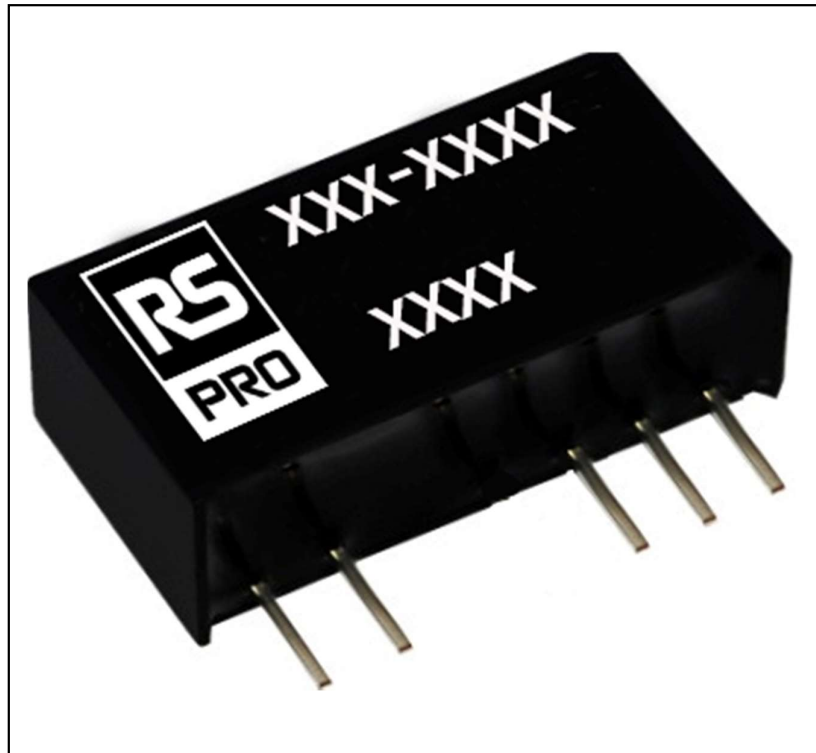


## Features

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

## RS PRO DC - DC Converter

RS Stock No.: 0633283 0633285 0633286  
0633287 0633288 0633289 0633291 0633292  
0633293 0633294 0633295 0633296 0633297  
0633298 0633299 0633282



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

- 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
0633283	5(4.5-5.5)	5	200	84%	2200uF
0633285	5(4.5-5.5)	12	83	84%	1000uF
0633286	5(4.5-5.5)	15	67	85%	1000uF
0633287	5(4.5-5.5)	24	42	83%	680uF
0633288	12(10.8-13.2)	5	200	84%	2200uF
0633289	12(10.8-13.2)	12	83	87%	1000uF
0633291	12(10.8-13.2)	15	67	87%	820uF
0633292	12(10.8-13.2)	24	42	88%	680uF
0633293	5(4.5-5.5)	±5	±100	84%	2200uF
0633294	5(4.5-5.5)	±12	±42	84%	1000uF
0633295	5(4.5-5.5)	±15	±33	88%	2200uF
0633296	5(4.5-5.5)	±24	±21	85%	1000uF
0633297	12(10.8-13.2)	±5	±100	85%	2200uF
0633298	12(10.8-13.2)	±12	±42	88%	2200uF
0633299	12(10.8-13.2)	±15	±33	87%	1000uF
0633282	15(13.5-16.5)	±24	±21	85%	1000uF

## General Specifications

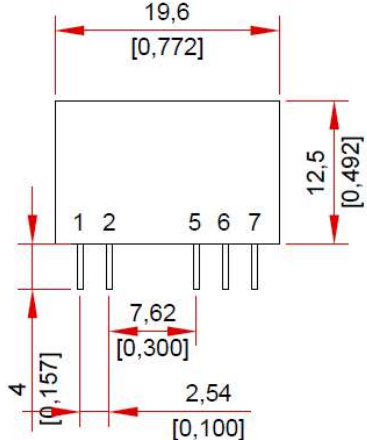
Output Voltage	DC 3V;5V;9V;12V;15V;24V
Input Voltage Range	DC 3.3V(3.0-3.6);5V(4.5-5.5V);12V(10.8-13.2);15V(13.5-16.5);24V(21.6-26.4)

Power Rating	1W
Input Voltage Nominal	DC 3.3V;5V;9V;12V;15V;24V
Output Current	See Electrical Specifications
Mounting Type	SIP
Isolated	Yes/No
Number of Outputs	1
Output Voltage Adjustment Range	nonsupport
Package	Plastic pipe installation
Isolation Voltage	3000Vdc 1Min
Width	19.6mm
Depth	10mm
Length	6mm
Railway Approved	No
Load Regulation	15% Max
Medical Approved	No
Efficiency	81%-88%

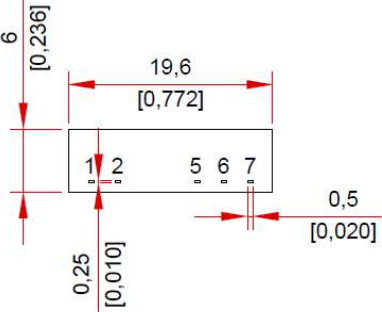
## Operation Environment

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

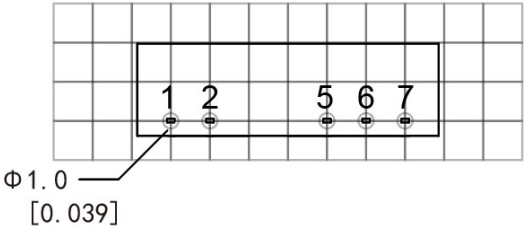
Interview Diagram



Bottom attempting



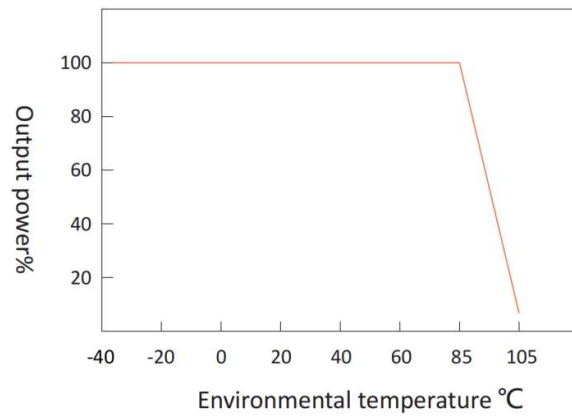
Recommended PCB size diagram



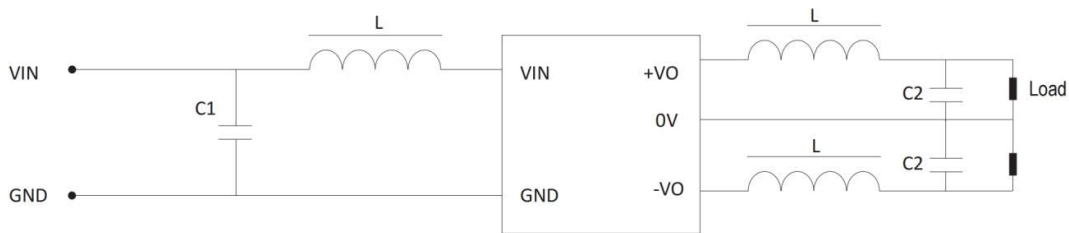
Pin definition

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

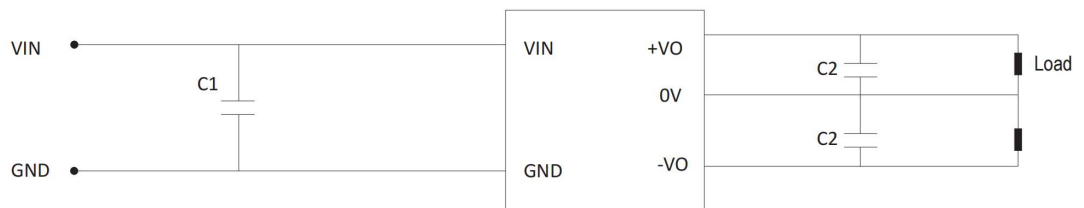
## Temperature reduction curve



## LC filtering circuit



## Recommended basic application circuits



Input		Output	
Input Voltage	C1	Output Voltage	C2
3.3V/5V	10UF	±3.3V/±5V	10UF
12V	4.7UF	±12V	4.7UF
15V	2.2UF	±15V	2.2UF
24V	1UF	±24V	1UF

**Buy tip** 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  $R=U^2 / (10\% \times 1W)$ .

