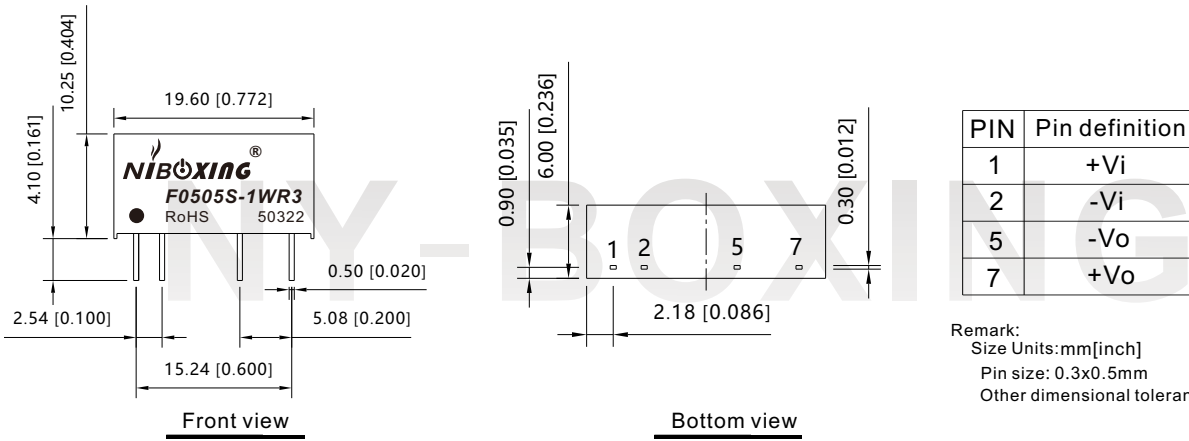


**1W DC/DC Module power supply**
**Product performance**


- ★ Small SIP package
- ★ Sustainable short-circuit protection, self-healing
- ★ Isolation withstand voltage 3000VDC
- ★ High efficiency, high power density, low ripple noise
- ★ Industrial-grade product design, small size
- ★ Operating temperature range: -40~+85°C

FxxxxS-1WR3series-----It is a customer of Niboxing for applications that generate a set of input/output isolation for on-board power requirements. The product is widely used in pure digital circuits, general low-frequency analog circuits, relay drive circuits, data switching circuits and so on. The voltage of the input power supply is required to be relatively stable, and the input and output are required to be isolated, and the output voltage accuracy of the power supply is not high.

**Diagram of package dimensions**

**Product selection**

model	input voltage range	Nominal output voltage / electricity (Vo / Io)	productiveness (Typ)	minimum output current	Maximum capacity load
F0303S-1WR3		3.3V/300mA	81%	30mA	10uF
F0305S-1WR3	2.97~3.63V	5V/200mA	81%	20mA	10uF
F0312S-1WR3	(Nominal: 12VDC)	12V/83mA	82%	9mA	4.7uF
F0315S-1WR3	3.3VDC)	15V/67mA	78%	7mA	2.2uF
F0324S-1WR3		24V/42mA	82%	4mA	1uF
F0503S-1WR3		3.3V/300mA	81%	30mA	10uF
F0505S-1WR3	4.5~5.5V	5V/200mA	81%	20mA	10uF
F0512S-1WR3	(Nominal: 12VDC)	12V/83mA	82%	9mA	4.7uF
F0515S-1WR3	5VDC)	15V/67mA	78%	7mA	2.2uF
F0524S-1WR3		24V/42mA	82%	4mA	1uF
F1203S-1WR3		3.3V/300mA	81%	30mA	10uF
F1205S-1WR3	10.8~13.2V	5V/200mA	83%	20mA	10uF
F1212S-1WR3	(Nominal: 12VDC)	12V/83mA	79%	9mA	4.7uF
F1215S-1WR3	12VDC)	15V/67mA	80%	7mA	2.2uF
F1224S-1WR3		24V/42mA	81%	4mA	1uF

F1503S-1WR3		3.3V/300mA	81%	30mA	10uF
F1505S-1WR3	13.5~16.5V	5V/200mA	79%	20mA	10uF
F1512S-1WR3	(Nominal:	12V/83mA	83%	9mA	4.7uF
F1515S-1WR3	15VDC)	15V/67mA	82%	7mA	2.2uF
F1524S-1WR3		24V/42mA	79%	4mA	1uF
F2403S-1WR3		3.3V/300mA	81%	30mA	10uF
F2405S-1WR3	21.6~26.4V	5V/200mA	80%	20mA	10uF
F2412S-1WR3	(Nominal:	12V/83mA	81%	9mA	4.7uF
F2415S-1WR3	24VDC)	15V/67mA	82%	7mA	2.2uF
F2424S-1WR3		24V/42mA	80%	4mA	1uF

### Output characteristics

project	going	Min	Typ	Max
output power		0.1W	--	--
Output voltage accuracy	Input voltage range, 100% load	--	±15%	--
voltage regulation	Under rated load, input voltage voltage ± 1%	--	±1.5%	--
load regulation	10% to 100% load	--	15%	20%
Output ripple noise <sup>①</sup>	20 MHz bandwidth (peak-peak)	--	75mV	100mV
Temperature drift coefficient	Nominal voltage input, 100% load, -40°C ~ + 85°C	--	--	±0.03%/°C
Output short circuit protection	Long-term short-circuit, self-recovery			

\* pour:①The test method of ripple noise adopts the parallel line test method, and please refer to the "DC-DC Module Power Supply Application Guide" for the specific operation method.

### General characteristics

project	going	Min	Typ	Max
Insulation and pressure resistance	Input-output, with a test time of 60s	3000VDC	--	--
working temperature		-40°C	--	+85°C
Storage temperature		-40°C		+125°C
Store humidity		--	--	95%RH
switching frequency		--	100 KHz	--
MTBF	MIL-HDBK-217F, 25°C		3500,000h	
Module shell material	Black flame retardant heat resistant plastic (UL 94-V0)			

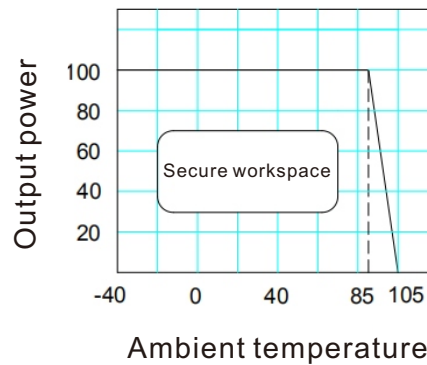
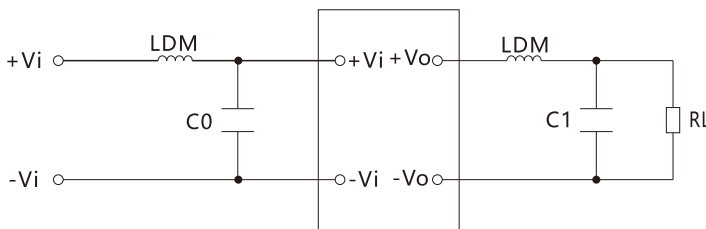
**Product performance curves**
**Temperature graph**

**Reference scheme**
**1 Typical application circuit diagram**


Figure [1] shows a typical application circuit

**Notes (Figure 1)**

- a. It is recommended to use ceramic capacitors or electrolytic capacitors for the external capacitors at the input or output of the product, and it is not recommended to use tantalum capacitors, otherwise there is a certain risk of failure.
- b. The product does not support output parallel power or hot-swappable use

输入电压	3.3V	5V	12V	15V	24V
C0	4.7μF	4.7μF	2.2μF	2.2μF	1μF

输出电压	3.3V	5V	12V	15V	24V
C1	10μF	10μF	4.7μF	2.2μF	1μF

LDM	6.8μH
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**Safety precautions**

- 1.If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet;
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. For more product information, please visit our official website ( [www.gzny-boxing.com](http://www.gzny-boxing.com) ) or email us ( [sales@gzny-boxing.com](mailto:sales@gzny-boxing.com) ).