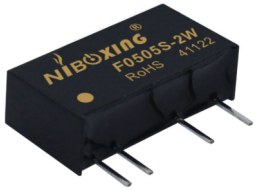
2W, DC/DC module power supply

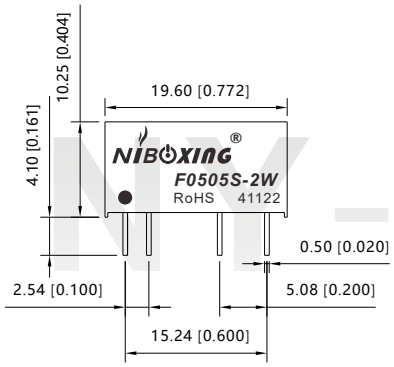


FEATURES

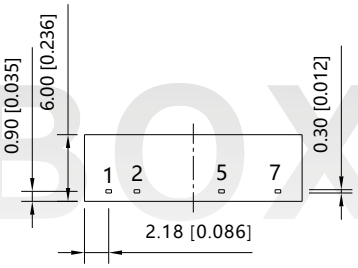
- ★ Compact size, high power density
- ★ Operating temperature range: -40℃ to +85℃
- ★ No-load input current as low as 5mA
- ★ I/O isolation test voltage 3000VDC
- ★ Low ripple & noise
- ★ RoHS Compliant
- ★ Industrial grade, high reliability

FxxxxS-2W series are specially designed for applications where an isolated voltage is required in a distributed power supply system. They are suitable for: pure digital circuits, low frequency analog circuits, relay-driven circuits and data switching circuits.

Dimensions



Front View



Bottom View

PIN	Function
1	+Vi
2	-Vi
5	-Vo
7	+Vo

Note:
Unit:mm[inch]
Pin size: 0.3x0.5[0.012x0.020]
General tolerances:±0.50[±0.020]

Selection Guide

Part No.	Input Voltage (VDC)	Nominal Output Voltage and Current	Efficiency (%)(Typ.) @ Full Load	Output Current (mA)(Min.)	Max. Capacitive Load(μF)
F0303S-2W	2.97~3.63V (Typ：3.3VDC)	3.3V/600mA	81%	30mA	10uF
F0305S-2W		5V/400mA	81%	20mA	10uF
F0312S-2W		12V/166mA	82%	9mA	4.7uF
F0315S-2W		15V/133mA	78%	7mA	2.2uF
F0324S-2W		24V/83mA	82%	4mA	1uF
F0503S-2W	4.5~5.5V (Typ：5VDC)	3.3V/600mA	81%	30mA	10uF
F0505S-2W		5V/400mA	81%	20mA	10uF
F0512S-2W		12V/166mA	82%	9mA	4.7uF
F0515S-2W		15V/133mA	78%	7mA	2.2uF
F0524S-2W		24V/83mA	82%	4mA	1uF

F1203S-2W	10.8~13.2V (Typ：12VDC)	3.3V/600mA	81%	30mA	10uF
F1205S-2W		5V/400mA	83%	20mA	10uF
F1212S-2W		12V/166mA	79%	9mA	4.7uF
F1215S-2W		15V/133mA	80%	7mA	2.2uF
F1224S-2W		24V/83mA	81%	4mA	1uF
F1503S-2W	13.5~16.5V (Typ：15VDC)	3.3V/600mA	81%	30mA	10uF
F1505S-2W		5V/400mA	79%	20mA	10uF
F1512S-2W		12V/166mA	83%	9mA	4.7uF
F1515S-2W		15V/133mA	82%	7mA	2.2uF
F1524S-2W		24V/83mA	79%	4mA	1uF
F2403S-2W	21.6~26.4V (Typ：24VDC)	3.3V/600mA	81%	30mA	10uF
F2405S-2W		5V/400mA	80%	20mA	10uF
F2412S-2W		12V/166mA	81%	9mA	4.7uF
F2415S-2W		15V/133mA	82%	7mA	2.2uF
F2424S-2W		24V/83mA	80%	4mA	1uF

Output Specifications

Item	Operating Conditions	Min	Typ	Max
Output Power		0.1W	--	--
Output Voltage Accuracy	100% load	-7.5%	--	+2.5%
Line Regulation	Input voltage change: ±1%	--	±1.5%	--
Load Regulation	10%~100% Load	--	15%	20%
Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	--	75mV	100mV
Temperature Drift Coefficient	100% load	--	--	±0.03%/℃

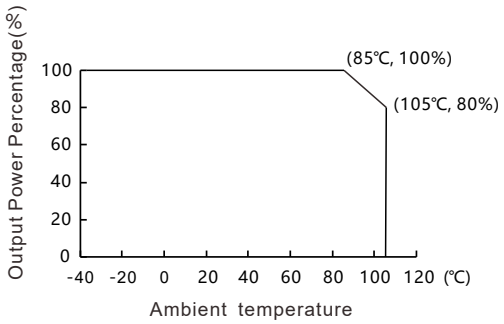
Note: *Ripple and noise tested with "parallel cable" method, please see DC-DC Converter Application Notes for specific operation methods.

General Specifications

Item	Operating Conditions	Min	Typ	Max
Insulation Voltage	Input-Output, Test for 1min	3000VDC	--	--
Operating Temperature		-40℃	--	+85℃
Storage Temperature		-40℃	--	+125℃
Storage Humidity		--	--	95%RH
Working Frequency		--	100KHz	--
MTBF	MIL-HDBK-217F, 25°C		3500,000h	
Casing Material	Black flame-retardant and heat-resistant plastic (UL94-V0)			

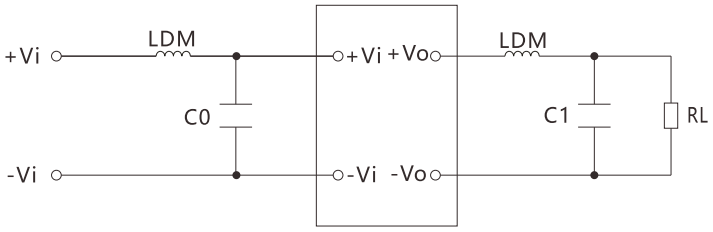
Product Characteristic Curve

Temperature Derating Curve



Design Reference

1 Typical application



Note

a.Ceramic capacitor or electrolytic capacitor is recommended for external capacitor of product input or output.Tantalum capacitors are not recommended, otherwise there is a certain failure risk.

b.The product does not support output and joint power or hot plug

Input Voltage	3.3V	5V	12V	15V	24V
C0	4.7μF	4.7μF	2.2μF	2.2μF	1μF

Output Voltage	3.3V	5V	12V	15V	24V
C1	10μF	10μF	4.7μF	2.2μF	1μF

LDM	6.8μH

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℃, 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 or email us (sales@gzny-boxing.com) .