

2W, Fixed input voltage, isolated & unregulated single output

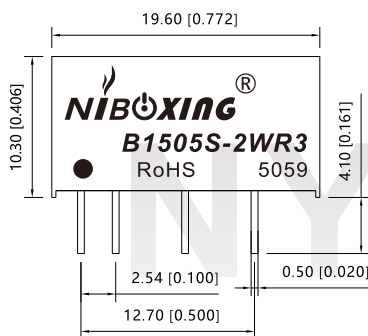
FEATURES



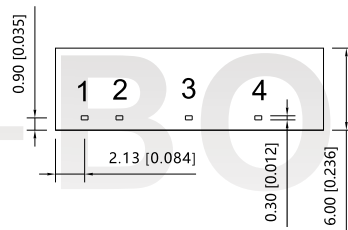
- ★ Compact size, high power density
- ★ Operating temperature range: -40°C to +85°C
- ★ No-load input current as low as 5mA
- ★ I/O isolation test voltage 1K VDC
- ★ Low ripple & noise
- ★ RoHS Compliant
- ★ Industrial grade, high reliability

BxxxxS-2WR3 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
3	-Vo
4	+Vo

Note:

Unit:mm[inch]

Pin size: 0.3x0.5[0.012x0.020]

Pin diameter tolerances:±0.10[±0.004]

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)
B0303S-2WR3	2.97~3.63V (Typ: 3.3VDC)	3.3V/600mA	45mA	82%	10μF
B0305S-2WR3		5V/400mA	40mA	80%	10μF
B0312S-2WR3		12V/166mA	20mA	80%	4.7μF
B0315S-2WR3		15V/133mA	15mA	80%	2.2μF
B0324S-2WR3		24V/83mA	10mA	80%	2.2μF
B0503S-2WR3	4.5~5.5V (Typ: 5VDC)	3.3V/600mA	45mA	83%	10μF
B0505S-2WR3		5V/400mA	40mA	82%	10μF
B0512S-2WR3		12V/166mA	20mA	81%	4.7μF
B0515S-2WR3		15V/133mA	15mA	80%	2.2μF
B0524S-2WR3		24V/83mA	10mA	80%	2.2μF

B1203S-2WR3		3.3V/600mA	45mA	83%	10μF
B1205S-2WR3	10.8~13.2V (Typ: 12VDC)	5V/400mA	40mA	83%	10μF
B1212S-2WR3		12V/166mA	20mA	81%	4.7μF
B1215S-2WR3		15V/133mA	15mA	82%	2.2μF
B1224S-2WR3		24V/83mA	10mA	82%	2.2μF
B1503S-2WR3		3.3V/600mA	45mA	83%	10μF
B1505S-2WR3	13.5~16.5V (Typ: 15VDC)	5V/400mA	40mA	83%	10μF
B1512S-2WR3		12V/166mA	20mA	81%	4.7μF
B1515S-2WR3		15V/133mA	15mA	82%	2.2μF
B1524S-2WR3		24V/83mA	10mA	82%	2.2μF
B2403S-2WR3		3.3V/600mA	45mA	83%	10μF
B2405S-2WR3	21.6~26.4V (Typ: 24VDC)	5V/400mA	40mA	83%	10μF
B2412S-2WR3		12V/166mA	20mA	81%	4.7μF
B2415S-2WR3		15V/133mA	15mA	82%	2.2μF
B2424S-2WR3		24V/83mA	10mA	82%	2.2μF

Output Specifications

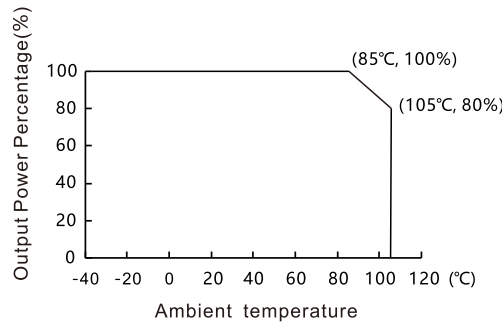
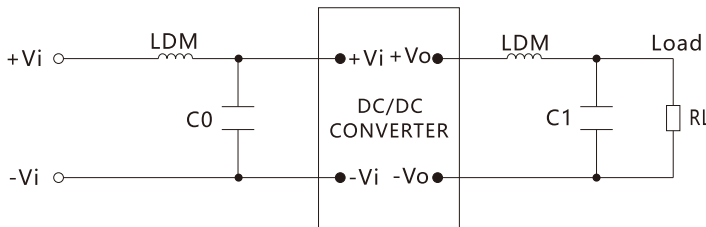
Item	Operating Conditions	Min	Typ	Max	
Output Power		0.1W	--	2W	
Output Voltage Accuracy	100% load	-7.5%	--	+2.5%	
Line Regulation	Input voltage change: ±1%	--	±1.5%	--	
Load Regulation	10%~100% Load	--	15%	20%	
Ripple & Noise*	20MHz bandwidth	3.3~12V Output	--	75mV	100mV
	(peak-to-peak value)	15~24V Output	--	100mV	200mV
Temperature Drift Coefficient	100% load	--	--	±0.03%/°C	
Short Circuit Protection	Hiccup,continuous,Self-Recovery				
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	1000VDC	--	--
Operating Temperature		-40°C	--	+85°C
Storage Temperature		-55°C	--	+125°C
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

We recommend using an electrolytic capacitor or MLCC for C0,C1. Choose a Capacitor voltage rating with at least 20% margin, in other words not exceeding 80%.

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