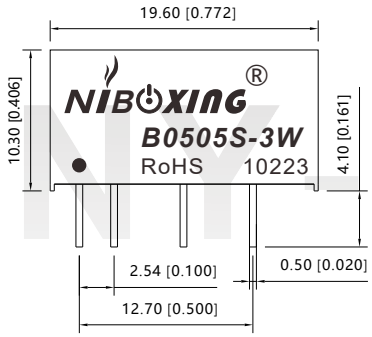
3WDC/DC Modular power supply

FEATURES

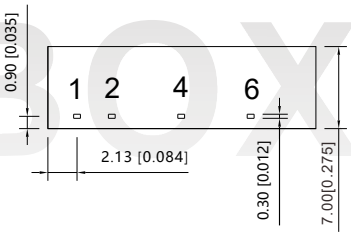
- ★ Small SIP package
- ★ International standard pin mode
- ★ High efficiency, high power density
- ★ I/O isolation test voltage 1.5K VDC
- ★ Low ripple & noise
- ★ Operating temperature range:-40 ~ + 85℃
- ★ Three-year quality assurance

BxxxxS-3W 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
4	- Vo
6	+Vo

Note:
Unit:mm[inch]
Pin size: 0.3x0.5mm
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-3W	2.97~3.63V (Typ：3.3VDC)	3.3V/909mA	91mA	82%	24μF
B0305S-3W		5V/600mA	60mA	87%	24μF
B0312S-3W		12V/250mA	25mA	88%	10μF
B0315S-3W		15V/200mA	20mA	88%	5.6μF
B0324S-3W		24V/125mA	13mA	88%	5.6μF
B0503S-3W	4.5~5.5V (Typ：5VDC)	3.3V/909mA	91mA	82%	24μF
B0505S-3W		5V/600mA	60mA	87%	24μF
B0512S-3W		12V/250mA	25mA	88%	10μF
B0515S-3W		15V/200mA	20mA	88%	5.6μF
B0524S-3W		24V/125mA	13mA	88%	5.6μF

B1203S-3W	10.8~13.2V (Typ：12VDC)	3.3V/909mA	91mA	82%	24μF
B1205S-3W		5V/600mA	60mA	87%	24μF
B1212S-3W		12V/250mA	25mA	88%	10μF
B1215S-3W		15V/200mA	20mA	88%	5.6μF
B1224S-3W		24V/125mA	13mA	88%	5.6μF
B1503S-3W	13.5~16.5V (Typ：15VDC)	3.3V/909mA	91mA	82%	24μF
B1505S-3W		5V/600mA	60mA	87%	24μF
B1512S-3W		12V/250mA	25mA	88%	10μF
B1515S-3W		15V/200mA	20mA	88%	5.6μF
B1524S-3W		24V/125mA	13mA	88%	5.6μF
B2403S-3W	21.6~26.4V (Typ：24VDC)	3.3V/909mA	91mA	82%	24μF
B2405S-3W		5V/600mA	60mA	87%	24μF
B2412S-3W		12V/250mA	25mA	88%	10μF
B2415S-3W		15V/200mA	20mA	88%	5.6μF
B2424S-3W		24V/125mA	13mA	88%	5.6μF

Output Specifications

Item	Operating Conditions	Min	Typ	Max
Output Power		0.1W	--	3W
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%/℃

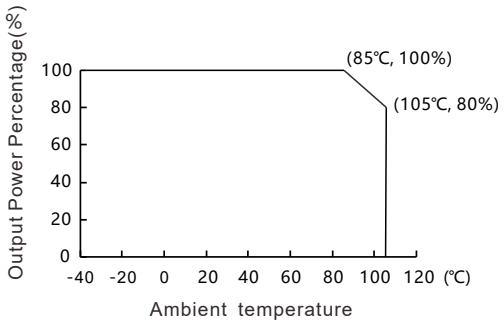
Note: *Ripple and noise tested with "parallel cable" method, please see DC-DC Converter Application Notes for specific operation methods.

General Specifications

Item	Operating Conditions	Min	Typ	Max
Insulation Voltage	Input-Output, Test for 1min	--	1500VDC	--
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)			

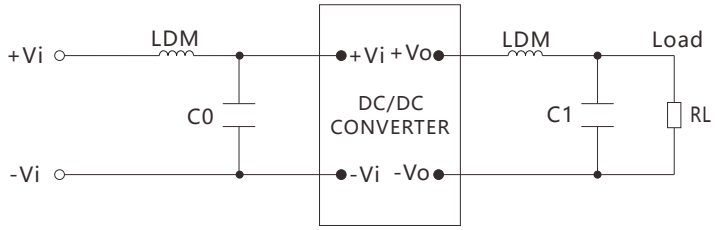
Product Characteristic Curve

Temperature Derating Curve



Design Reference

1 Typical application



Note

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

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) .