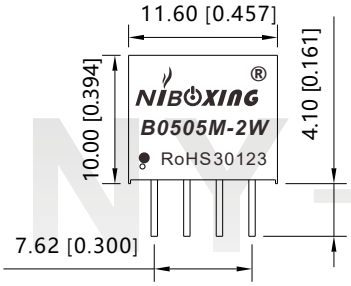
2W, Fixed input voltage, isolated & unregulated single output

FEATURES

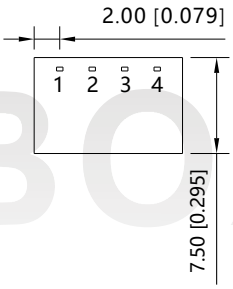
- ★ Compact size, high power density
- ★ Operating temperature range: -40℃ to +85℃
- ★ No-load input current as low as 5mA
- ★ I/O isolation test voltage 1.5K VDC
- ★ Low ripple & noise
- ★ RoHS Compliant
- ★ Industrial grade, high reliability

BxxxxM-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
3	-Vo
4	+Vo

Note:
Unit:mm[inch]
Pin size: 0.3x0.5mm
General tolerances:±0.5[±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)
B0303M-2W	2.97~3.63V (Typ：3.3VDC)	3.3V/600mA	83%	60mA	24uF
B0305M-2W		5V/400mA	88%	40mA	20uF
B0309M-2W		9V/222mA	89%	22mA	10uF
B0312M-2W		12V/166mA	89%	17mA	5.6uF
B0315M-2W		15V/133mA	89%	13mA	5.6uF
B0324M-2W		24V/83mA	89%	8mA	2.2uF
B0503M-2W	4.5~5.5V (Typ：5VDC)	3.3V/600mA	83%	60mA	24uF
B0505M-2W		5V/400mA	88%	40mA	20uF
B0509M-2W		9V/222mA	89%	22mA	10uF
B0512M-2W		12V/166mA	89%	17mA	5.6uF
B0515M-2W		15V/133mA	89%	13mA	5.6uF
B0524M-2W		24V/83mA	89%	8mA	2.2uF

B1203M-2W	10.8~13.2V (Typ：12VDC)	3.3V/600mA	83%	60mA	24uF
B1205M-2W		5V/400mA	88%	40mA	20uF
B1209M-2W		9V/222mA	89%	22mA	10uF
B1212M-2W		12V/166mA	89%	17mA	5.6uF
B1215M-2W		15V/133mA	89%	13mA	5.6uF
B1224M-2W		24V/83mA	89%	8mA	2.2uF
B1503M-2W	13.5~16.5V (Typ：15VDC)	3.3V/600mA	83%	60mA	24uF
B1505M-2W		5V/400mA	88%	40mA	20uF
B1509M-2W		9V/222mA	89%	22mA	10uF
B1512M-2W		12V/166mA	89%	17mA	5.6uF
B1515M-2W		15V/133mA	89%	13mA	5.6uF
B1524M-2W		24V/83mA	89%	8mA	2.2uF
B2403M-2W	21.6~26.4V (Typ：24VDC)	3.3V/600mA	83%	60mA	24uF
B2405M-2W		5V/400mA	88%	40mA	20uF
B2409M-2W		9V/222mA	89%	22mA	10uF
B2412M-2W		12V/166mA	89%	17mA	5.6uF
B2415M-2W		15V/133mA	89%	13mA	5.6uF
B2424M-2W		24V/83mA	89%	8mA	2.2uF

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 (peak-to-peak value)	--	75mV	100mV
Temperature Drift Coefficient	100% load	--	--	±0.03%/℃

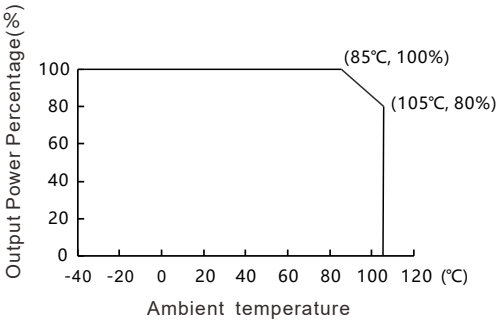
Note: *Ripple and noise tested with "parallel cable" method, please see DC-DC Converter Application Notes for specific operation methods.

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)			

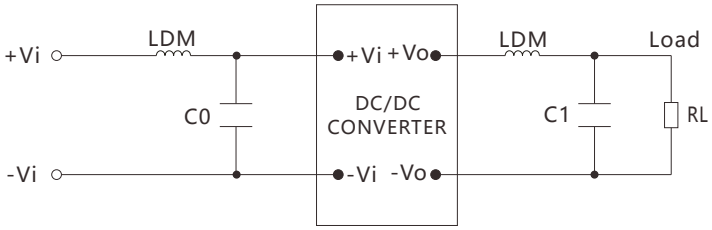
Product Characteristic Curve

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	9V	12V	15V	24V
C0	24μF	20μF	10μF	5.6μF	5.6μF	2.2μF

Output Voltage	3.3V	5V	9V	12V	15V	24V
C1	24μF	20μF	10μF	5.6μF	5.6μF	2.2μF

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) .