

## FEATURES:

- Fixed input, unregulated single/dual output, 2W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40°C ~ +105°C
- No additional components required
- Stable performance and high reliability (MTBF ≥ 3500 K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94-V0 requirements
- DIP package

## Selection Guide

Part No.	INPUT		OUTPUT			Full Load Efficiency (%/Typ)	Capacitive Load (μF)		
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)				
B0303D-2WR3	3.3	2.97-3.63	3.3	40	400	78	2400		
B0305D-2WR3			5	40	400	78	2400		
A0503D-2WR3	5	4.5-5.5	±3.3	30	303	78	1200		
A0505D-2WR3			±5	20	200	84	1200		
A05X7D-2WR3			±7	14	143	84	470		
A0509D-2WR3			±9	11	111	85	470		
A0512D-2WR3			±12	8	83	85	220		
A0515D-2WR3			±15	7	67	86	220		
A0524D-2WR3			±24	4	42	86	100		
B0503D-2WR3			3.3	40	400	78	2400		
B0505D-2WR3			5	40	400	84	2400		
B0509D-2WR3			9	22	222	85	1000		
B0512D-2WR3			12	17	167	85	560		
B0515D-2WR3			15	13	133	86	560		
B0524D-2WR3			24	8	83	86	220		
A1205D-2WR3			12	10.8-13.2	±5	20	200	80	1200
A1209D-2WR3	±9	11			111	82	500		
A1212D-2WR3	±12	8			83	83	280		
A1215D-2WR3	±15	7			67	83	280		
A1224D-2WR3	±24	4			42	85	100		
B1205D-2WR3	5	40			400	82	2400		
B1209D-2WR3	9	22			222	82	1000		
B1212D-2WR3	12	17			167	84	560		
B1215D-2WR3	15	13			133	85	560		
B1224D-2WR3	24	8			83	86	220		
A1515D-2WR3	15	13.5-16.5			±15	7	67	81	280
B1505D-2WR3					5	40	400	79	2400

B1509D-2WR3			9	22	222	82	1000
B1515D-2WR3			12	17	167	79	560
A2405D-2WR3	24	21.6-26.4	±5	20	200	80	1200
A2409D-2WR3			±9	11	111	81	500
A2412D-2WR3			±12	8	83	83	280
A2415D-2WR3			±15	7	67	83	280
A2424D-2WR3			±24	4	42	83	110
B2405D-2WR3			5	40	400	82	2400
B2409D-2WR3			9	22	222	82	1000
B2412D-2WR3			12	17	167	86	560
B2415D-2WR3			15	13	133	88	560
B2424D-2WR3			24	8	83	88	220

\*\*customized accepted ,pls contact sales for details\*\*

## Input Specifications

Input Voltage Range	Input Voltage Range (Vdc)	Max (Vdc)	Input Static Current (mA)
Input Filter	Capacitive Filter		
Ctrl	NONE		
	NONE		
Hot Plug	Unavailable		

## Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	input voltage range and load
Line Regulation	±0.2%	±0.5%	Input voltage from low to high voltage, full load
Load Regulation	±0.5%	±1%	10% to 100% full load
Ripple&Noise	50mVp-p	150mVp-p	20MHz Bandwidth, full load

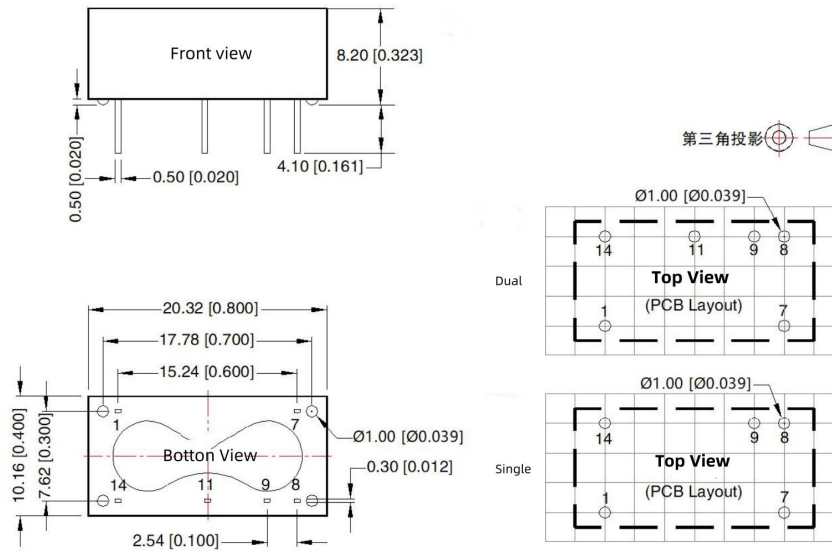
## General Specifications

Switching Frequency	300KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	15°C (Typ)	
Temperature Coefficient	0.03%/°C	100% full load
Pin Soldering Resistance Temperature	300°C	Soldering spot is 1.5mm away from case for 10 seconds
Isolation (Input-Output)	1.5KVDC	Input-output electric strength test for 1 minute with a leakage current
Insulation Resistance (Input-Output)	1000MΩ	Input-output resistance 500Vdc
Operating Temperature	-40~+105°C	

Storage Temperature	-55~+125°C	
Storage Humidity	<95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	2.1g (Typ)	

\*\*Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25°C room temperature environment.

**Dimensions and Recommended Layout**



Note:  
Unit: mm[inch]  
Pin section tolerances: ± 0.10[± 0.004]  
General tolerances: ± 0.25[± 0.010]

**Pin-out**

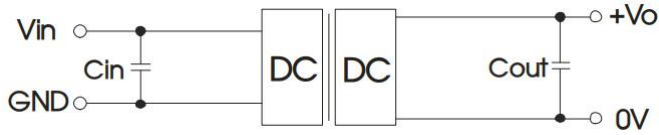
Pin	Single	Dual	
1	GND	GND	
7	NC	NC	
8	0V	0V	
9	+Vo	+Vo	
11	No Pin	-Vo	
14	Vin	Vin	

**Recommended Circuit**

Dual



Single



Recommended input and output capacitor values					
Vin	Cin	Dual Vout	Cout	Single Output	Cout
3.3VDC	10uF/16V	±3.3VDC	4.7uF/16V	3.3VDC	10uF/16V
5VDC	4.7uF/16V	±5/7VDC	4.7uF/16V	5VDC	10uF/16V
12VDC	2.2uF/25V	±9VDC	1uF/16V	9VDC	2.2uF/25V
15VDC	2.2uF/25V	±12/15VDC	1uF/25V	12VDC	2.2uF/25V
24VDC	1uF/50V	±24VDC	0.47uF/50VDC	15VDC	2.2uF/25V
-	-	-	-	24VDC	1uF/50V

**Noted**

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.