

FEATURES:

- Fixed voltage input, single/dual unregulated output, 1W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40℃~+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥3500K 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)		
B0303XD-1WR3	3.3	2.97-3.63	3.3	31	303	74	2200
B0305XD-1WR3			5	20	200	78	2200
B0309XD-1WR3			9	12	111	80	1000
B0312XD-1WR3			12	9	83	80	560
B0315XD-1WR3			15	7	67	80	560
B0324XD-1WR3			24	5	42	82	220
A0503D-1WR3	5	4.5-5.5	±3.3	±15	±151	74	1000
A0505D-1WR3			±5	±10	±100	82	1000
A0509D-1WR3			±9	±6	±56	83	470
A0512D-1WR3			±12	±5	±42	83	220
A0515D-1WR3			±15	±4	±33	83	220
A0524D-1WR3			±24	±3	±21	85	100
B0503XD-1WR3			3.3	31	303	74	2200
B0505XD-1WR3			5	20	200	78	2200
B0509XD-1WR3			9	12	111	80	1000
B0512XD-1WR3			12	9	83	80	560
B0515XD-1WR3			15	7	67	80	560
B0524XD-1WR3			24	5	42	82	220
A1203D-1WR3	12	10.8-13.2	±3.3	±15	±151	74	1000
A1205D-1WR3			±5	±10	±100	82	1000
A1209D-1WR3			±9	±6	±56	83	470
A1212D-1WR3			±12	±5	±42	83	220
A1215D-1WR3			±15	±4	±33	83	220
A1224D-1WR3			±24	±3	±21	85	100
B1203XD-1WR3			3.3	31	303	74	2200
B1205XD-1WR3			5	20	200	78	2200
B1209XD-1WR3			9	12	111	80	1000

B1212XD-1WR3			12	9	83	80	560
B1215XD-1WR3			15	7	67	80	560
B1224XD-1WR3			24	5	42	82	220
A1503D-1WR3	15	13.5-16.5	±3.3	±15	±151	74	1000
A1505D-1WR3			±5	±10	±100	82	1000
A1509D-1WR3			±9	±6	±56	83	470
A1512D-1WR3			±12	±5	±42	83	220
A1515D-1WR3			±15	±4	±33	83	220
A1524D-1WR3			±24	±3	±21	85	100
B1505XD-1WR3			5	20	200	78	2200
B1509XD-1WR3			9	12	111	80	1000
B1512XD-1WR3			12	9	83	80	560
B1515XD-1WR3			15	7	67	80	560
B1524XD-1WR3			24	5	42	82	220
A2403D-1WR3	24	21.6-26.4	±3.3	±15	±151	74	1000
A2405D-1WR3			±5	±10	±100	82	1000
A2409D-1WR3			±9	±6	±56	83	470
A2412D-1WR3			±12	±5	±42	83	220
A2415D-1WR3			±15	±4	±33	83	220
A2424D-1WR3			±24	±3	±21	85	100
B2403XD-1WR3			3.3	31	303	74	2200
B2405XD-1WR3			5	20	200	78	2200
B2409XD-1WR3			9	12	111	80	1000
B2412XD-1WR3			12	9	83	80	560
B2415XD-1WR3			15	7	67	80	560
B2424XD-1WR3			24	5	42	82	220

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter	
Ctrl	NONE	
	NONE	
Hot Plug	Unavailable	

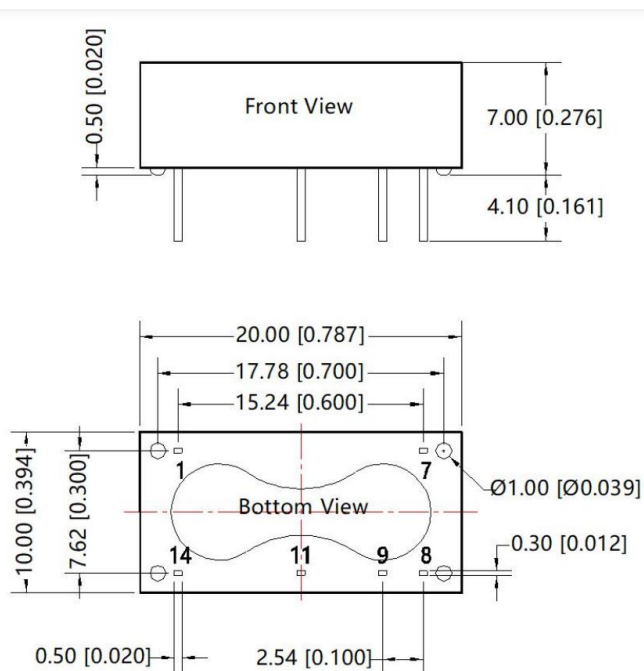
Output Specifications

Item		Min	Typ	Max	Test Conditions
Voltage Accuracy					
Line Regulation		-	-	±1.2%	Input voltage ±1%
Load Regulation	3.3V,±3.3Vout	-	-	15%	10% to 100% full load
	5V,±5Vout	-	-	10%	
	9V,±9Vout	-	-	8%	
	12V,±12Vout	-	-	6%	
	15V,±15Vout	-	-	6%	
	24V,±24Vout	-	-	5%	

Ripple&Noise	-	50mVp-p	75mVp-p	20MHz Bandwidth, full load
Gernerel Specifications				
Switching Frequency	250KHz(Typ)			100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery			
Case Temperature Rise	25℃（Typ）			
Temperature Coefficient	0.02%/℃			100% full load
Pin Soldering Resistance Temperature	300℃			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℃			
Storage Temperature	-55～+125℃			
Storage Humidity	<95%RH			Non-condensing
Cooling Method	Free air convection			
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)			
Weight	2g（Typ）			

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

Dimensions and Recommended Layout



Note:

Unit: mm[inch]

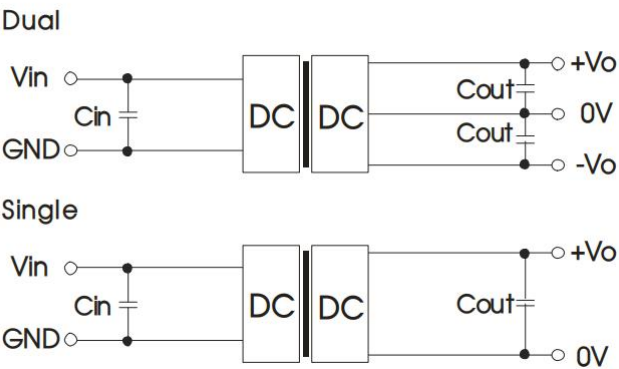
Pin section tolerances: $\pm 0.10[\pm 0.004]$

General tolerances: $\pm 0.25[\pm 0.010]$

Pin-out

Pin	Single	Dual	
1	-Vin	-Vin	
7	NC	NC	
8	0V	+Vo2	
9	+Vo	-Vo2	
10	-	+Vo1	
11	-	-Vo1	
14	+Vin	+Vin	

Recommended Circuit



Recommended input and output capacitor values						
Vin		Cin	Single Vout	Cout	Dual Vout	Cout
3.3V	3.3VDC	10uF/16VDC	3.3/5VDC	10uF/16V	±3.3/±5VDC	10uF/16V
	-	-	9/12VDC	2.2uF/25V	±9/±12VDC	2.2uF/25V
	-	-	15/24VDC	1uF/50V	±15/±24VDC	1uF/50V
	5VDC	4.7uF/16VDC	3.3/5VDC	10uF/16V	±3.3/±5VDC	4.7uF/16V
	12VDC	2.2uF/25VDC	7.2/9VDC	2.2uF/16V	±9VDC	1uF/16V
	15VDC	2.2uF/25VDC	12VDC	2.2uF/25VDC	±12VDC	1uF/25V
	24VDC	1uF/50V	15VDC	1uF/25VDC	±15VDC	0.47uF/25V
	-	-	24VDC	1uF/50V	±24VDC	0.47uF/50V

Note

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.

*The final interpretation right of the product belongs to ECCO ELECTRONICS.

