

FEATURES:

- Fixed voltage input,unregulated single 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 V-0 requirements
- DIP package



Selection Guide

Part No.	INPUT		OUTPUT			Full Load Efficiency (%/Typ)	CapacitiveLoad(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
B0303D-1WR3	3.3	2.97-3.63	3.3	31	303	74	2200
B0305D-1WR3			5	20	200	82	2200
B0307D-1WR3			7.2	13	139	83	1000
B0309D-1WR3			9	11	111	83	1000
B0312D-1WR3			12	9	83	84	560
B0315D-1WR3			15	7	67	84	560
B0324D-1WR3			24	4	42	85	220
B0503D-1WR3	5	4.5-5.5	3.3	31	303	74	2200
B0505D-1WR3			5	20	200	82	2200
B0507D-1WR3			7.2	13	139	83	1000
B0509D-1WR3			9	11	111	83	1000
B0512D-1WR3			12	9	83	84	560
B0515D-1WR3			15	7	67	84	560
B0524D-1WR3			24	4	42	85	220
B0903D-1WR3	9	8.1-9.9	3.3	31	303	74	2200
B0905D-1WR3			5	20	200	82	2200
B0907D-1WR3			7.2	13	139	83	1000
B0909D-1WR3			9	11	111	83	1000
B0912D-1WR3			12	9	83	84	560
B0915D-1WR3			15	7	67	84	560
B0924D-1WR3			24	4	42	85	220
B1203D-1WR3	12	10.8-13.2	3.3	31	303	74	2200
B1205D-1WR3			5	20	200	82	2200
B1207D-1WR3			7.2	13	139	83	1000
B1209D-1WR3			9	11	111	83	1000
B1212D-1WR3			12	9	83	84	560
B1215D-1WR3			15	7	67	84	560

B1224D-1WR3			24	4	42	85	220
B1503D-1WR3	15	13.5-16.5	3.3	31	303	74	2200
B1505D-1WR3			5	20	200	82	2200
B1507D-1WR3			7.2	13	139	83	1000
B1509D-1WR3			9	11	111	83	1000
B1512D-1WR3			12	9	83	84	560
B1515D-1WR3			15	7	67	84	560
B1524D-1WR3			24	4	42	85	220
B2403D-1WR3	24	21.6-26.4	3.3	31	303	74	2200
B2405D-1WR3			5	20	200	82	2200
B2407D-1WR3			7.2	13	139	83	1000
B2409D-1WR3			9	11	111	83	1000
B2412D-1WR3			12	9	83	84	560
B2415D-1WR3			15	7	67	84	560
B2424D-1WR3			24	4	42	85	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		0%	5%	10%	Input voltage range and load
Line Regulation		-	-	±1.2%	Input voltage ±1%
Load Regulation	3.3Vout	-	15%	18%	10% to 100% full load
	5Vout	-	8%	13%	
	7.2Vout	-	7%	9%	
	9Vout	-	7%	9%	
	12Vout	-	6%	8%	
	15Vout	-	5%	8%	
	24Vout	-	5%	7%	
Ripple&Noise		-	50mVp-p	75mVp-p	20MHz Bandwidth, full load

General 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

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

Technical drawing of a PCB layout showing front and bottom views with dimensions and a top view grid.

Front View Dimensions:

- Overall width: 12.70 [0.500]
- Overall height: 10.16 [0.400]
- Top section height: 8.20 [0.323]
- Section height: 7.70 [0.303]
- Bottom section height: 4.10 [0.161]
- Pin diameter: Ø1.00 [Ø0.039]
- Pin section tolerance: $\pm 0.10 [\pm 0.004]$
- General tolerance: $\pm 0.25 [\pm 0.010]$

Bottom View Dimensions:

- Overall width: 12.70 [0.500]
- Overall height: 10.16 [0.400]
- Section height: 7.62 [0.300]
- Section height: 7.62 [0.300]
- Section height: 5.10 [0.201]
- Section height: 0.30 [0.012]
- Section width: 7.62 [0.300]
- Section width: 5.08 [0.200]
- Pin diameter: Ø1.00 [Ø0.039]
- Pin section tolerance: $\pm 0.10 [\pm 0.004]$
- General tolerance: $\pm 0.25 [\pm 0.010]$

Top View (PCB Layout):

- Grid: 2.54" x 2.54mm
- Pin locations: 1, 4, 5, 7
- Pin diameter: Ø1.00 [Ø0.039]
- Pin section tolerance: $\pm 0.10 [\pm 0.004]$
- General tolerance: $\pm 0.25 [\pm 0.010]$

Note:

- Unit: mm[inch]
- Pin section tolerances: $\pm 0.10 [\pm 0.004]$
- General tolerances: $\pm 0.25 [\pm 0.010]$

Pin	Mark		
1	GND		
4	Vin		
5	+Vo		
7	0V		

Block diagram of a DC-DC converter. The input is V_{in} , connected to a capacitor C_{in} . The output is $+V_o$, connected to a capacitor C_{out} . The converter is represented by two DC blocks.

Vin	Cin	Vout	Cout	
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3.3V5V/9V	4.7uF/16V	3.3/5/7.2VDC	10uF/16V	
12V/15V/24V	4.7uF/25V	9/12VDC	2.2uF/25V	
24V	4.7uF/50V	15/24VDC	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.

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