

CTC COIL TECHNOLOGY CORPORATION

DC/DC CONVERTER B3WR Series , 3W REGULATION

Features:

- 2:1 Wide Input Range.
- 3W DIP-24 Package.
- High Efficiency up to 86%.
- UL94V-0 Package Material.
- Low Ripple and Noise.
- Continuous Short Circuit Protection, Auto-Restarting.
- 1KVdc Isolation.
- Input π Filter.
- Operating Temperature Range From - 40 to +85 .
- Case Temperature 40 @ Ta = 25
- Meet CE EN-60950-1 Certified



Note : Metal case could be selected with “ M “after P/N



Description:

The B3WR series is a wide input voltage range of DC-DC converters offering a single and dual regulated output. 24-pin DIP and high efficiency allows an operating temperature of -40 to +85 except the 4.5 ~ 9V input voltage range.

Selection Guide				
P/N	Input Range	Output Voltage	Output Current	Efficiency Typ.
B3WR-053.3 B3WR-0505/D B3WR-0509/D B3WR-0512/D B3WR-0515/D	4.5 ~ 9 VDC	3.3	900mA	66%
		5 / ± 5	600mA/ ± 300 mA	70%
		9 / ± 9	333mA/ ± 167 mA	74%
		12 / ± 12	250mA/ ± 125 mA	75%
		15 / ± 15	200mA/ ± 100 mA	76%
B3WR-123.3 B3WR-1205/D B3WR-1209/D B3WR-1212/D B3WR-1215/D	9 ~ 18VDC	3.3	900mA	73%
		5 / ± 5	600mA/ ± 300 mA	76%
		9 / ± 9	333mA/ ± 167 mA	81%
		12 / ± 12	250mA/ ± 125 mA	83%
		15 / ± 15	200mA/ ± 100 mA	84%
B3WR-243.3 B3WR-2405/D B3WR-2409/D B3WR-2412/D B3WR-2415/D	18 ~ 36VDC	3.3	900mA	76%
		5 / ± 5	600mA/ ± 300 mA	78%
		9 / ± 9	333mA/ ± 167 mA	82%
		12 / ± 12	250mA/ ± 125 mA	84%
		15 / ± 15	200mA/ ± 100 mA	86%
B3WR-483.3 B3WR-4805/D B3WR-4809/D B3WR-4812/D B3WR-4815/D	36 ~ 72VDC	3.3	900mA	78%
		5 / ± 5	600mA/ ± 300 mA	80%
		9 / ± 9	333mA/ ± 167 mA	83%
		12 / ± 12	250mA/ ± 125 mA	85%
		15 / ± 15	200mA/ ± 100 mA	85%

Electrical Specifications

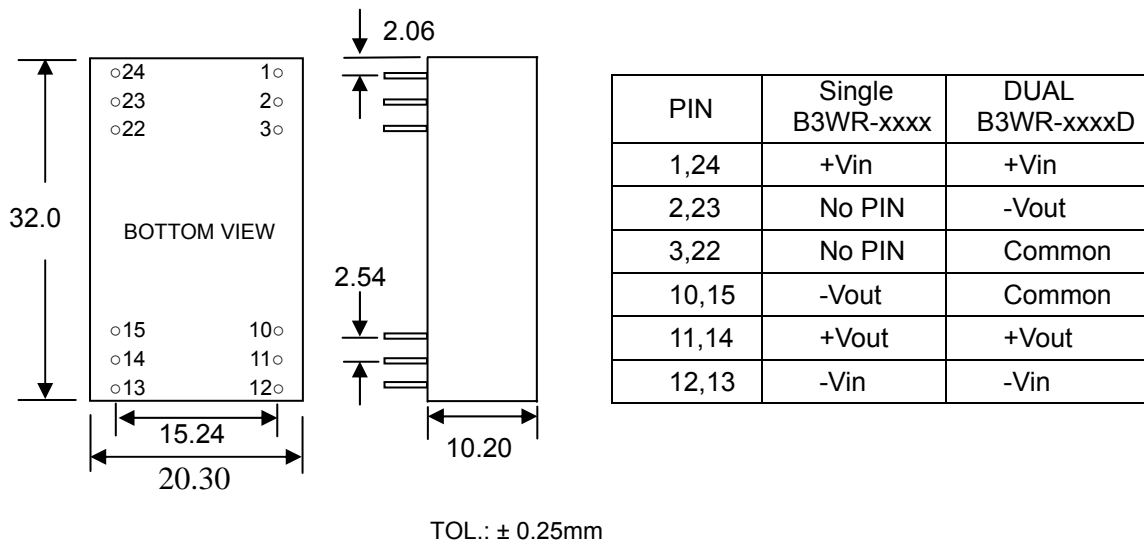
Input Filter	π type.			
Voltage set accuracy		MIN.	TYP.	MAX.
			±1%	±2%
Line Regulation	Low line to High line @Max. load			0.3%
Load Regulation	20% ~ 100% load			0.6%
Ripple & Noise @ 20MHz BW <small>Note 1</small>				50mVp-p
Operating Temperature	Vin = 5V	-40		+80
	Vin = 12V, 24V, 48V	-40		+85
Storage Temperature		-50		+125
Short-Circuit Protection	Continuous , Auto-Restarting			
Operating Frequency (Pulse Frequency Modulation,PFM)	Vin = Nominal Input	100KHz		
Isolation Test Voltage	Tested for 1 second Min.	MIN.	TYP.	MAX.
		1000Vdc		
Isolation Capacity			40pF	
Isolation Resistance		1GΩ		
Humidity				95%
MTBF (MIL-HDBK-217F)			10 ⁶ hours	
Case Temperature	Vin = Nominal Input @ Ta=25		40	

Physical Specifications

Case Material	Non conductive Black Plastic
Potting Material	Epoxy(UL94V-0)
Weight	12.0g

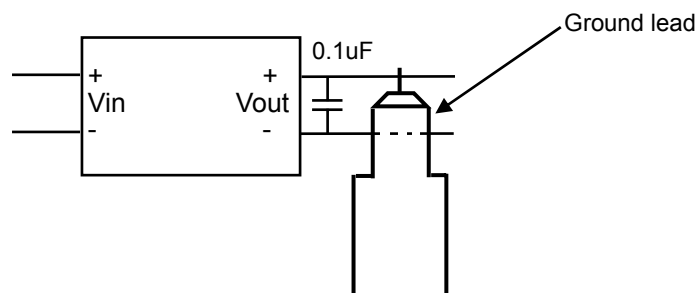
All specifications valid at nominal input voltage, full load @ 25 after warm-up time unless otherwise stated.

Outline Dimensions



Note:

- To measure the output ripple & noise with short runs by 0.1uF/ 50V @ 20MHz nominal input and full load. Please see as below :



DEC / 2003 Rev.A