

## GRB series Wide Input High Voltage Output DC-DC Converter(0.1~5W)

### Features:

- >> Efficiency up to 80%
- >> 1x1-inch standard package(25.4x25.4x10.14mm)
- >> Single voltage output,DIP package
- >> 4.5-9VDC,9-18VDC,18-36VDC input
- >> 80VDC,100VDC,110VDC,150VDC,200VDC,250VDC output
- >> Wide input, regulated output
- >> Operating temperature: -40 ° C to +85 ° C
- >> UL94-V0 package
- >> Good temperature characteristics
- >> Input/output:Non-isolation



WAYJUN GRB Series Wide Voltage Range Input, Regulated High Voltage Output DC DC Converter adopts the advanced DC/DC conversion and pressor technology, the unique vacuum insulation and encapsulation technical design, the metal shield case, which have the following characteristics: moisture-proof, shockproof, high efficiency, low noise, low temperature drift.The modules are widely used in mine exploration, metallurgy, optical control technology, medical equipment, physical and chemical experimental analysis, etc.

### General Parameters:

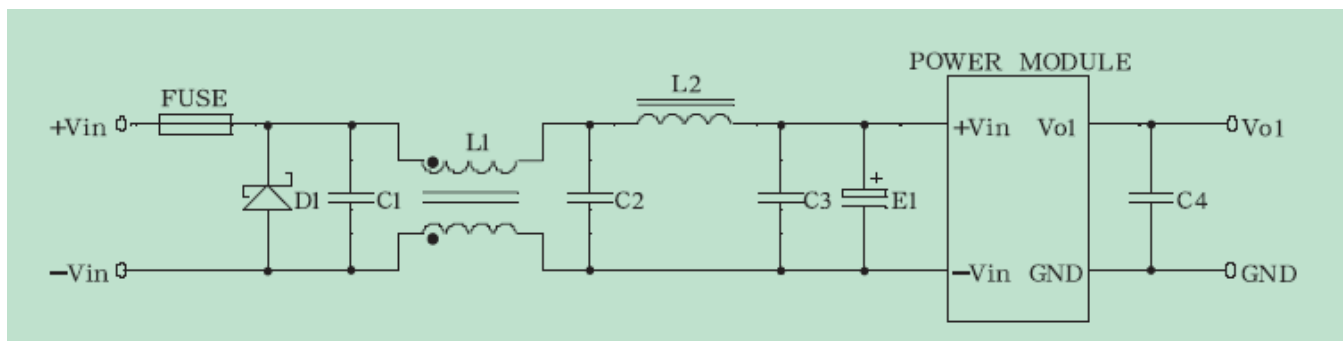
Output characteristics		
Item	Technical parameters	Testing Condition
Accuracy	3.0 %max	0%~100% load range
Voltage regulation rate	0.5%max	Full load
Load regulation rate	+/-0.5% type. +/-1% max. (No load to full load)	0%~100% load range
Ripple and noise	≤150 mV p-p, max	20MHz Bandwidth
The dynamic response speed	≤150us	25% ~ full load
Start delay time	500ms	
Input characteristics		
Input voltage range	( 5VDC ) 4.5—9.0VDC	
	( 12VDC ) 9.0—18VDC	
	( 24VDC ) 18—36VDC	
Linear high rate	0.5%	Low ~ High
Characteristic		
Switching frequency	300KHz	Typ.
Conversion efficiency	see model selection table	
Isolation voltage	Non-isolation	Input/output
MTBF	1000000小时	
Temperature coefficient	0.02%/°C	
Environmental characteristics		

Working Temperature Range	-40°C~+85°C
Storage Temperature	-55°C~+125°C
Relative Humidity	10%~90%
Cooling Method	Free air cooling

**Selection Guide: (D means DIP package)**

Part No.	Input Voltage (VDC)		Output (VDC)	Iout (mA)	Eff. (%)
	Type.	Range			
GRB05200D-W2	5	4.5—9.0	200	1	50
GRB05110D-1W	5	4.5—9.0	110	9	70
GRB12110D-2W5	12.0	9.0~18.0	110	20	80
GRB12150D-2W	12.0	9.0~18.0	150	14	82
GRB12250D-2W	12.0	9.0~18.0	250	8	85
GRB24110D-2W	24.0	18.0~36.0	110	18	82
GRB24150D-2W	24.0	18.0~36.0	150	13	84
GRB24250D-2W	24.0	18.0~36.0	150	8	86
GRB12110D-3W	12.0	9.0~18.0	110	27	80
GRB12150D-3W	12.0	9.0~18.0	150	20	82
GRB12250D-3W	12.0	9.0~18.0	250	12	85
GRB24110D-3W	24.0	18.0~36.0	110	27	82
GRB24150D-3W	24.0	18.0~36.0	150	20	83
GRB24250D-3W	24.0	18.0~36.0	250	12	85
GRB12150D-5W	12.0	9.0~18.0	150	34	85
GRB12250D-5W	12.0	9.0~18.0	250	20	86
GRB24110D-5W	24.0	18.0~36.0	110	45	85
GRB24150D-5W	24.0	18.0~36.0	150	34	87
GRB24250D-5W	24.0	18.0~36.0	250	20	88

**Application diagram:**



**Note:** If high voltage regulator output is higher than 80VDC, need add a filter capacitor at the output.

## Product examples:

Model 1: GRB12110D-2W5 (Vin:9-18VDC Vout:110VDC Output power:2.5W)

(Output C4 capacitor can choose 47UF/200V)

Model 2: GRB24250D-5W (Vin:18-36VDC Vout:250VDC Output power: 5W)

(Output C4 capacitor can choose 47UF/680V)

## Size and footprint description(unit:mm)

