B12_S-2WR3 Power Module Model List

SELECTION OF POWER SUPPLY MODULE

B12_S-2WR3 Series: 2W rated voltage input, isolated unregulated single output

- 4 Pin, international standard pins
- Low ripple factor and low noise
- No-load input current as low as 5mA
- Isolation voltage 1500VDC
- Working temperature -40℃-- +85℃
- Low quiescent current and high conversion efficiency

Model	Nominal Value(±10%)	Output Voltage/Current
B1203S-2WR3	12V(10.8V-13.2V)	3.3V/606mA
B1205S-2WR3		5V/400mA
B1209S-2WR3		9V/222mA
B1212S-2WR3		12V/167mA
B1215S-2WR3		15V/133mA
B1224S-2WR3		24V/83mA

※ The picture only for reference, please refer to the actual product

Product Feature

1. characteristic:Constant voltage input, isolated non stabilized voltage single output,2W
2. Isolation voltage 1500VDC
3. Low no-load power consumption 0.025W(Typ.)
4. Transfer efficiency up to 90%

5. Output short-circuit protection: continuous short circuit protection, automatic recovery
6. The voltage of the input power supply is relatively stable.（Voltage variation range±10%Vin）
7. Operating temperature range ：-40°C~+85°C
8. Small SIP package
9. International standard pin， direct installation of PCB board.
10. High reliability and long life design,continuous working time MTBF≥3.5 million hours (3500000Hrs)

Enviroment Condition

Project name	Qualification	Unit	Notes
Working enviroment temperature	-40—+85	℃	
Storage temperture	-40—+125 ℃	℃	
Relative humidity	5—95	%	
Heat dissipation mode	natural cooling		
Atmospheric pressure	80—106 Kpa	Kpa	
Ripple & Noise	30/80(max)	Mvp-p	

Input Characteristics

Item	Working conditions	Min.	Typ.	Max.	Unit
Input current (full load/no load)	5VDC Input Series	--	454/5	--/10	m'A
	9VDC Input Series	--	250/5	--/10	
	12VDC Input Series	--	186/2	--/5	
	15VDC Input Series	--	148/2	--/4	
	24VDC Input Series	--	92/1	--/2	
Reflection ripple current		--	15	--	m'A
Impulse voltage	3.3VDC Input Series	-0.7	--	5	VDC
	5VDC Input Series	-0.7	--	9	
	9VDC Input Series	-0.7	--	15	
	12VDC Input Series	-0.7	--	18	
	15VDC Input Series	-0.7	--	21	
	24VDC Input Series	-0.7	--	30	
Input filter type		Capacitance filter type			
Hot plugged		Non-support			

Output Characteristics

Project name	Working and testing condition		Min.	Typ.	Max.	Unit
Output load	load percentage		10	--	100	%
Output Voltage Accuracy	See Error Envelope Curve		--	--	±15.0	%
Linear adjustment rate	Input voltage	3.3V Input	--	--	±1.5	%
	variation ±1%	others	--	--	±1.2	%
Load adjustment rate	10%~100% load	3.3VDC Output	--	18	--	%
		5VDC Output	--	12	--	%
		9VDC Output	--	8	--	%
		12VDC Output	--	7	--	%
		15VDC Output	--	6	--	%
		24VDC Output	--	5	--	%
Ripple & Noise	Pure resistive load, 20HMz bandwidth, peak-to-peak		--	30	80	mVp-p
Temperature Drift Coefficient	Full load		--	--	±0.03	%/℃
Output short circuit pr	Continuous short circ		--			

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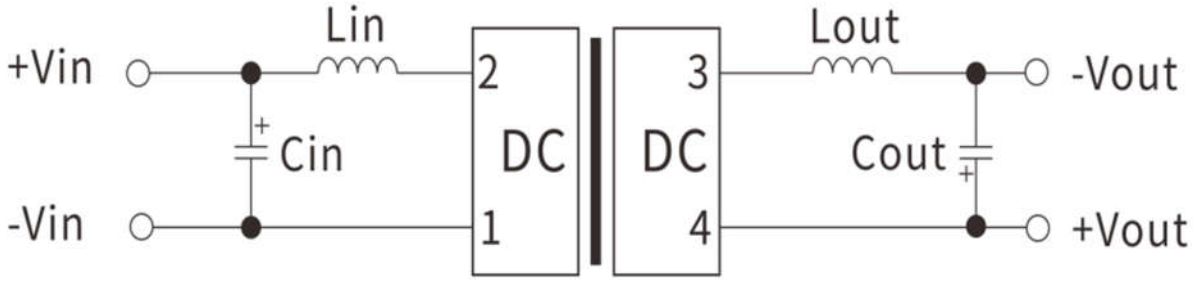
atic recovery
Notes: Ripple and Noise Test Methods Twisted Pair Test Method

Note:

1、The above is only a list of typical products. If you need products beyond the list, please contact our sales. 2、The maximum capacitive load indicates the maximum capacitive load that + VO or - vo can be connected to,If the value is exceeded, the product will not start normally..

Typical Application Circuits



EMC parameter recommendation

Component No.	Function	Recommended value
Cin Capacitance	Filter capacitor	4.7μA/50V
Cout Capacitance	Filter capacitor	Refer to usual application
Lin inductance	Filter inductance	Inductance: 4.7uH
Lout inductance	Cin Capacitance	Inductance: 4.7uH

Notes：Output Load Requirements

In order to ensure that the module can work efficiently and reliably, the minimum output load should not be less than 10% of the rated load.If the power you need is really small, please connect a resistor in parallel between the positive and negative poles of the output terminal (the sum of the actual power used by the resistor is greater than or equal to 10% of the rated power and the rated power of the selected resistor must be greater than 5 times of the actual power used, otherwise the temperature of the resistor will be higher)