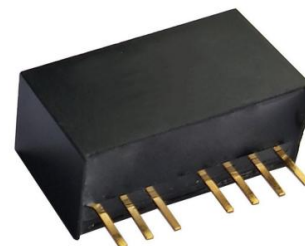


FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.6KV
- Working temperature: -40℃~+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥1000K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94V-0 requirements
- SIP package



Selection Guide

Part No.	INPUT		OUTPUT			Full Load Efficiency (%)	Capacitive Load (μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
VRB1203S-6WR3	12	9-18	3.3	0	1350	76	1800
VRB1205S-6WR3			5	0	1200	80	1000
VRB1209S-6WR3			9	0	667	82	470
VRB1212S-6WR3			12	0	500	84	470
VRB1215S-6WR3			15	0	400	84	220
VRB1224S-6WR3			24	0	250	84	100
VRB2403S-6WR3	24	18-36	3.3	0	1350	78	1800
VRB2405S-6WR3			5	0	1200	82	1000
VRB2409S-6WR3			9	0	667	84	470
VRB2412S-6WR3			12	0	500	86	470
VRB2415S-6WR3			15	0	400	87	220
VRB2424S-6WR3			24	0	250	85	100

customized accepted ,pls contact sales for details

Input Specifications

Item	Min	Typ	Max	Test Conditions
Ctrl	NONE-			
	NONE			
Hot Plug	Unavailable			

Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±2%	5%-100% load
Line Regulation	±0.5%	±1%	Input voltage variation from low to high at full load
Load Regulation	±0.5%	±1.5%	5%-100% load
Ripple&Noise	50mVp-p	100mVp-p	20MHz bandwidth, 5%-100% load

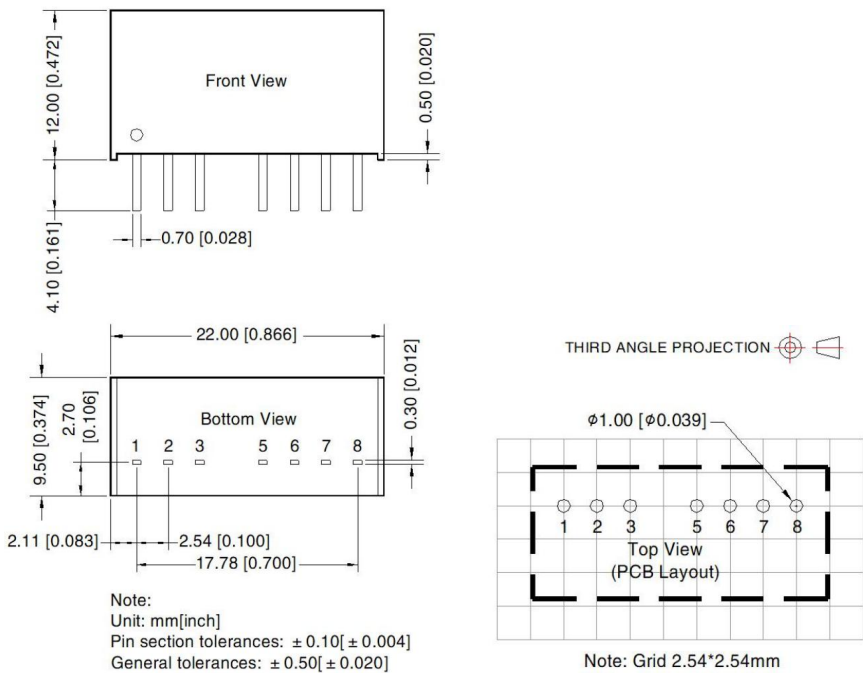
General Specifications

Switching Frequency	450KHz(Typ)	PWM mode
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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)	1.6KVDC	Input-output Electric Strength test for 1 minute with a leakage current of 1mA max.
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 (UL94V-0)	
Weight	4.3g (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



Pins

Pin	Mark		
1	GND		
2	Vin		
3	CTRL		
5	NC		

6	+Vo		
7	0V		
8	NC		

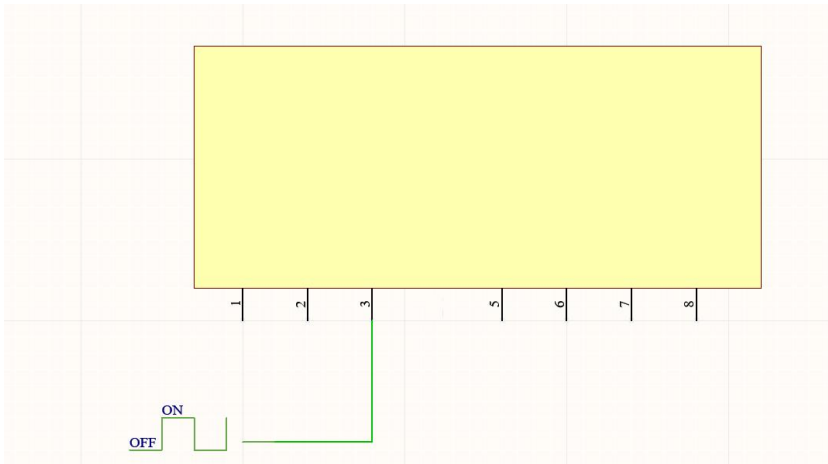
Recommended Circuit



Recommended input and output capacitor values

Cin		Vout	Cout	
Vin:12VDC	Vin:24VDC			
100uF/50V	100uF/50V	3.3/5/9VDC	22uF/16V	
		12/15VDC	22uF/25V	
		24VDC	22uF/50V	

CTRL Connect



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.