

FEATURES:

- Wide input range
- 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≥2 million hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94-V0 requirements
- SIP package

Selection Guide

Part No.	INPUT		OUTPUT			Full Load Efficiency (%) / Typ.	Capacitive Load (μF)
	Normal (Vdc)	Range (Vdc)	Voltage (V1dc)	Current Min (mA)	Current Max (mA)		
VRB1203YMD-20WR3	12	9-18	3.3	0	5000	86	10000
VRB1205YMD-20WR3			5	0	4000	89	10000
VRB1212YMD-20WR3			12	0	1667	89	1600
VRB1215YMD-20WR3			15	0	1333	90	1000
VRB1224YMD-20WR3	24	18-36	24	0	833	90	500
VRB2403YMD-20WR3			3.3	0	5000	88	10000
VRB2405YMD-20WR3			5	0	4000	90	10000
VRB2412YMD-20WR3			12	0	1667	90	1600
VRB2415YMD-20WR3			15	0	1333	90	1000
VRB2424YMD-20WR3			24	0	833	91	500
VRB4803YMD-20WR3	48	36-72	3.3	0	5000	88	10000
VRB4805YMD-20WR3			5	0	4000	90	10000
VRB4812YMD-20WR3			12	0	1667	91	1600
VRB4815YMD-20WR3			15	0	1333	91	1000
VRB4824YMD-20WR3			24	0	833	91	500

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter	
Ctrl	NONE	
	NONE	
Hot Plug	Unavailable	

Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	5%-100% load
No-load Output Voltage Accuracy	±1.5%	±5%	Input voltage range
Balance Of Output Voltage	±0.5%	±1%	Dual output, balanced load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load

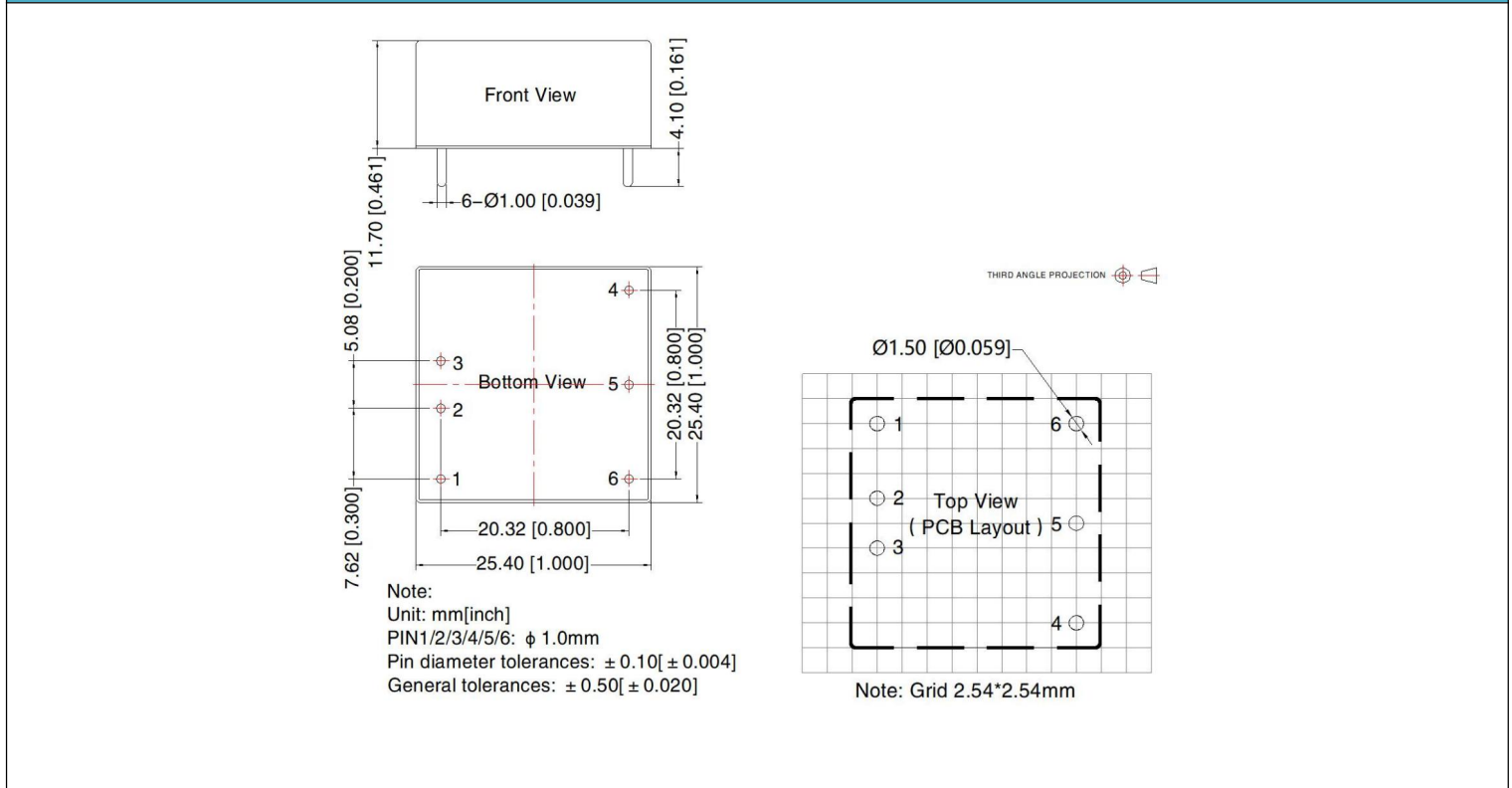
Load Regulation	±0.2%	±0.5%	5%-100% load
Ripple&Noise	100mVp-p	120mVp-p	24VDC output
	50	80	Others

General Specifications

Switching Frequency	200KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	25°C (Typ)	
Temperature Coefficient	0.03%/°C	100% full load
Pin Soldering Resistance Temperature	300°C	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
Insulation Resistance (Input-Output)	1000MΩ	Input-output resistance 500Vdc
Operating Temperature	-40~+105°C	
Storage Temperature	-55~+125°C	
Storage Humidity	<95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Aluminum alloy	
Weight	14g (Typ)	

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

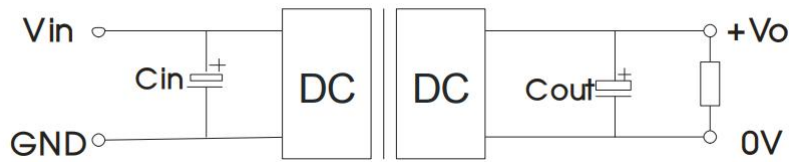
Dimensions and Recommended Layout



Pins

Pin	Single		
1	CTRL		
2	GND		
3	Vin		
4	+Vo		
5	TRIM		
6	0V		

Recommended Circuit



Vin (VDC)	Vout (VDC)	Cin	Cout
12	3.3/5	100μF/50V	100μF/16V
	12/15		100μF/25V
	24		47μF/50V
24	3.3/5	100μF/50V	100μF/16V
	12/15		100μF/25V
	24		47μF/50V
48	3.3/5	100μF/100V	100μF/16V
	12/15		100μF/25V
	24		47μF/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.