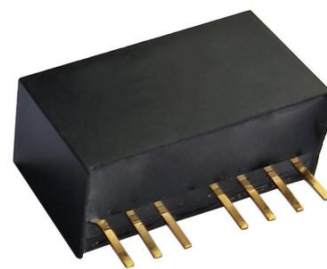


FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 3KV
- Working temperature: -40℃~+85℃
- 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 (%/Typ)	Capacitive Load(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
WRE0505S-3WR2	5	4.5-9	±5	±13	±250	74	1000
WRE0512S-3WR2			±12	±5	±104	77	470
WRE0515S-3WR2			±15	±4	±83	77	330
WRF0505S-3WR2			5	25	500	73	2200
WRF0509S-3WR2			9	14	278	74	1000
WRF0512S-3WR2			12	10	208	77	680
WRF0515S-3WR2			15	8	167	74	470
WRE1205S-3WR2	12	9-18	±5	±15	±300	78	1000
WRE1212S-3WR2			±12	±6	±125	79	470
WRE1215S-3WR2			±15	±5	±100	80	330
WRF1203S-3WR2			3.3	38	758	75	2700
WRF1205S-3WR2			5	30	600	76	2200
WRF1209S-3WR2			9	17	333	79	1000
WRF1212S-3WR2			12	13	250	82	680
WRF1215S-3WR2			15	10	200	83	470
WRF1224S-3WR2			24	6	125	81	330
WRE2405S-3WR2	24	18-36	±5	±15	±300	79	1000
WRE2409S-3WR2			±9	±8	±167	81	680
WRE2412S-3WR2			±12	±6	±125	83	470
WRE2415S-3WR2			±15	±5	±100	83	330
WRF2403S-3WR2			3.3	38	758	74	2700
WRF2405S-3WR2			5	30	600	81	2200
WRF2409S-3WR2			9	17	333	83	1000
WRF2412S-3WR2			12	13	250	83	680
WRF2415S-3WR2			15	10	200	83	470
WRF2424S-3WR2			24	6	125	83	330
WRE4805S-3WR2			±5	±15	±300	79	1000

WRE4812S-3WR2	48	36-72	±12	±6	±125	82	470
WRE4815S-3WR2			±15	±5	±100	82	330
WRF4805S-3WR2			5	30	600	76	2200
WRF4812S-3WR2			12	13	250	80	680
WRF4815S-3WR2			15	10	200	84	470

customized accepted ,pls contact sales for details

Input Specifications

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

Output Specifications

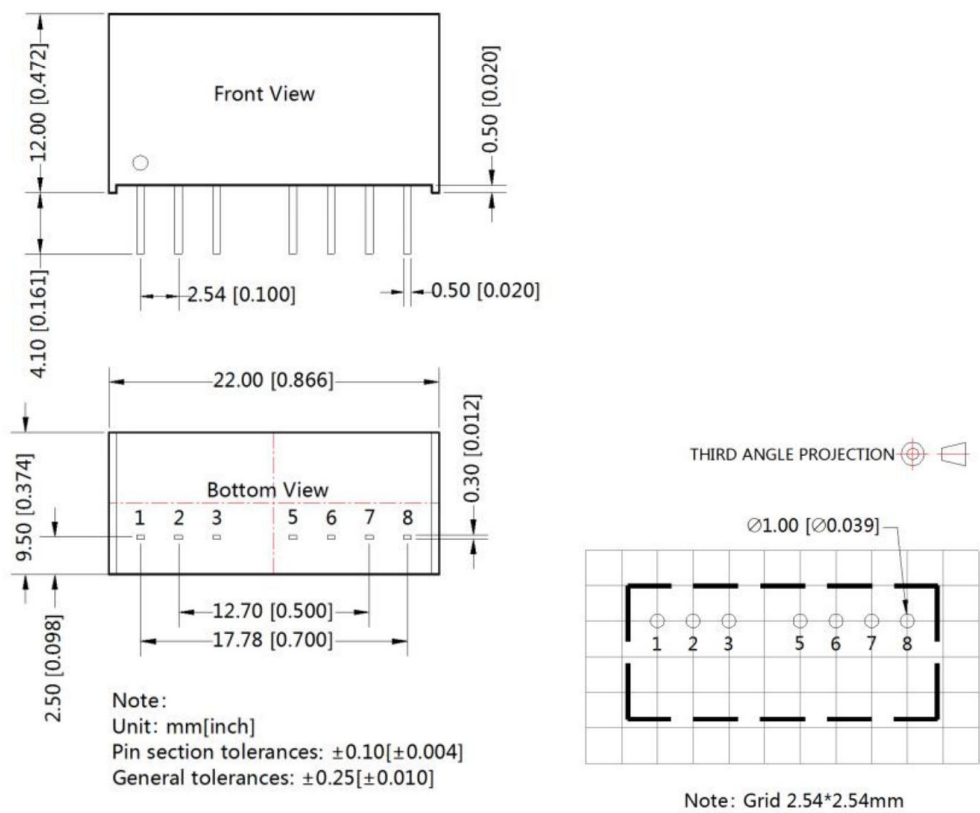
Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	5%-100% load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load
Load Regulation	±0.4%	±0.75%	5%-100% load
Ripple&Noise	50mVp-p	100mVp-p	20MHz bandwidth

General Specifications

Switching Frequency	200KHz(Typ)	100% full load, nominal input voltage
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)	3KVDC	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~+85℃	
Storage Temperature	-55~+125℃	
Storage Humidity	<95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94V-0)	
Weight	4.8g (Typ)	

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

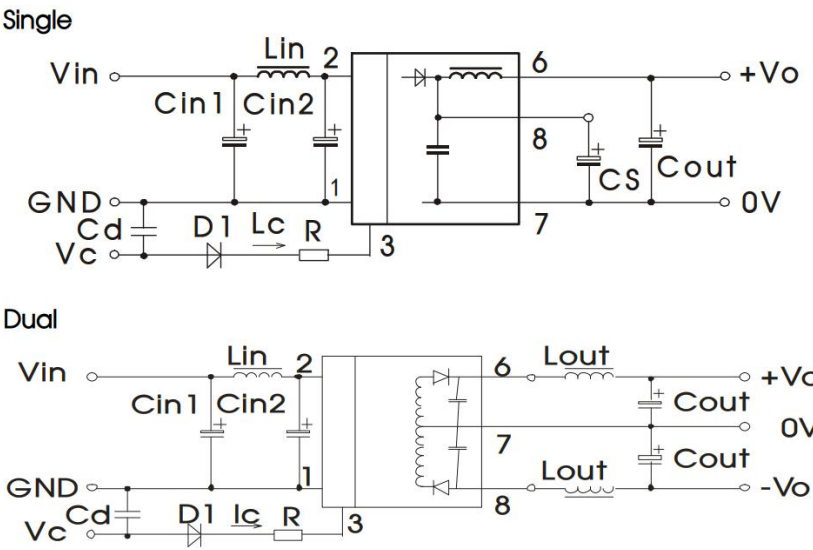
Dimensions and Recommended Layout



Pins

Pin	Single	Dual	
1	GND	GND	
2	Vin	Vin	
3	CTRL	CTRL	
5	NC	NC	
6	+Vo	+Vo	
7	0V	0V	
8	CS	-Vo	

Recommended Circuit



Recommended input and output capacitor values				
Vin	5VDC&12VDC	24VDC&48VDC		
Cin1	100uF/25V	100uF/100V		
Cin2	47uF/25V	1uF/100V		
Lin	4.7uH-12uH			
Cs	10uF-22uF/50V			
Cout	Vo(3/±3/5/±5/9/±9):100uF/16V			
	Vo(12/±12/15/±15):100uF/25V			
	Vo(12/±12/15/±15):100uF/25V			
Lout	2.2uH-10uH			
Cd	4.7nF/100V			

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.