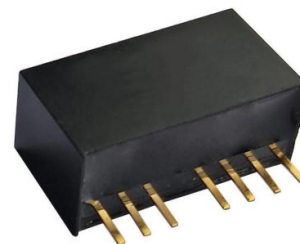


FEATURES:

- 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≥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)		
URB2403S-10WR3	24	9-36	3.3	0	2400	82	2200
URB2405S-10WR3			5	0	2000	85	2200
URB2409S-10WR3			9	0	1111	86	680
URB2412S-10WR3			12	0	833	86	470
URB2415S-10WR3			15	0	667	86	330
URB2424S-10WR3			24	0	417	85	220
URB4803S-10WR3	48	18-75	3.3	0	2400	82	2200
URB4805S-10WR3			5	0	2000	85	2200
URB4809S-10WR3			9	0	1111	86	680
URB4812S-10WR3			12	0	833	86	470
URB4815S-10WR3			15	0	667	86	330
URB4824S-10WR3			24	0	417	85	220

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	±1.5%	±2%	5%-100% load
Line Regulation	±0.2%	±0.5%	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

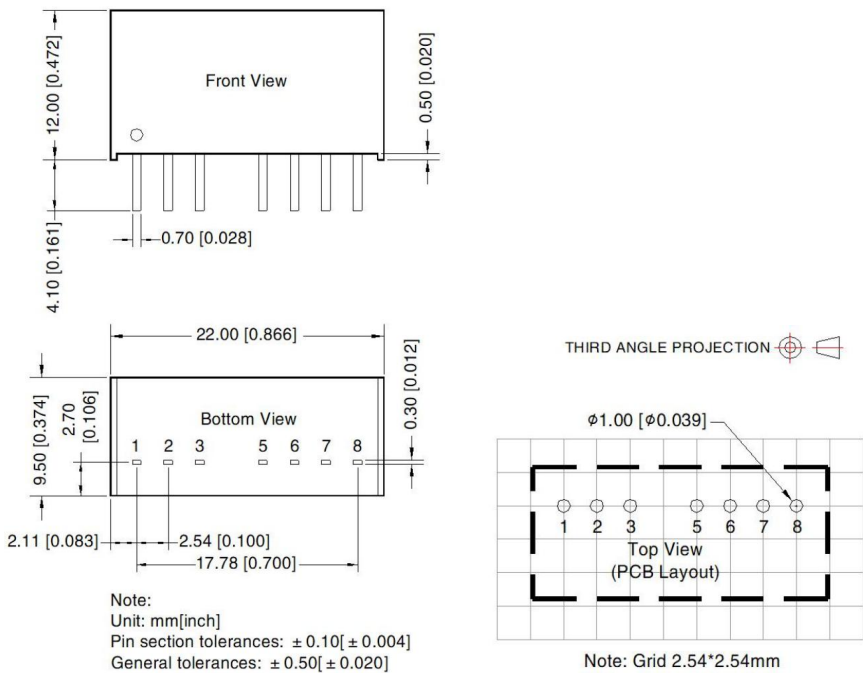
General Specifications

Switching Frequency	380KHz(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)	1.5KVDC	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		

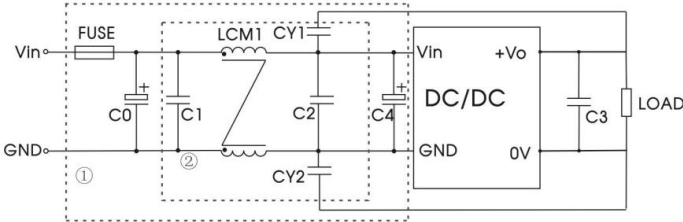
6	+Vo		
7	0V		
8	NC		

Recommended Circuit



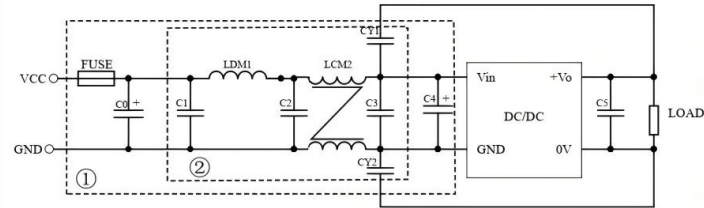
Vin	Cin	Vout	Cout
24VDC	47μF/100V	3.3/5/9VDC	22μF/16V
		12/15VDC	22μF/25V
		24VDC	22μF/50V
48VDC	100μF/100V	3.3/5VDC	22μF/16V
		12VDC	22μF/25V
		24/28VDC	22μF/50V

EMC Circuit



Parameter description:

Model	Vin: 24VDC
FUSE	Choose according to actual input current
C0/C4	330μF/50V
C1/C2	10μF/50V
C3	Refer to the Cout in Fig.2
LCM1	470μH, recommended to use MORN SUN's FL2D-13-471R3
CY1/CY2	1nF/2000VDC



Parameter description:

Model	Vin: 48VDC
FUSE	Choose according to actual input current
C0、C4	560μF/100V
C1	10μF/100V
C2	10μF/100V
C3	27μF/100V
C5	Refer to the Cout in Fig.2
LDM1	4.7μH
LCM2	1mH, recommended to use MORN SUN's FL2D-10-102B
CY1、CY2	1nF/400VAC

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.