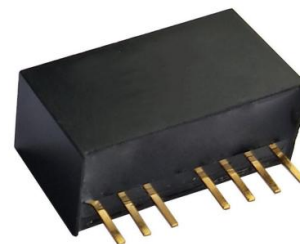


FEATURES:

- 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)		
URB2403S-6WR3	24	9-36	3.3	0	1350	78	1800
URB2405S-6WR3			5	0	1200	82	1000
URB2409S-6WR3			9	0	667	84	470
URB2412S-6WR3			12	0	500	85	470
URB2415S-6WR3			15	0	400	85	220
URB2424S-6WR3			24	0	250	85	100
URB4803S-6WR3	48	18-75	3.3	0	1350	79	1200
URB4805S-6WR3			5	0	1200	83	680
URB4809S-6WR3			9	0	667	84	330
URB4812S-6WR3			12	0	500	86	330
URB4815S-6WR3			15	0	400	87	150
URB4824S-6WR3			24	0	250	87	68

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

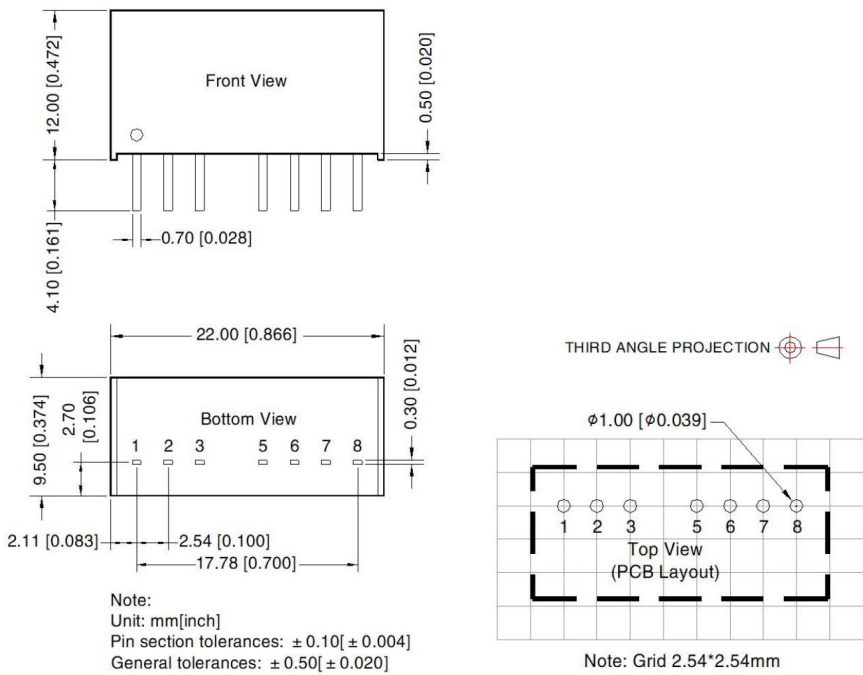
General Specifications

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		

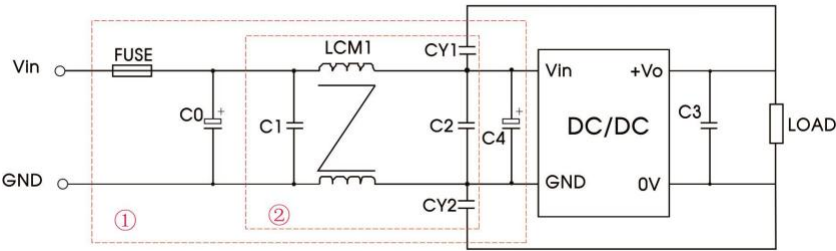
Recommended Circuit



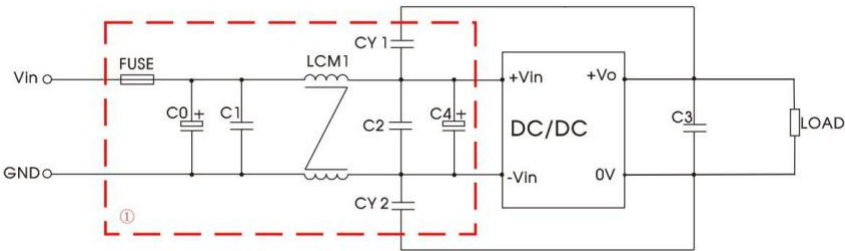
Recommended input and output capacitor values

	Cin	Vout	Cout	Cout0	Cout1
Vin:24VDC	100uF/100V	3.3/5/9VDC	22uF/16V	1uF/50F	10uF/50V Tantalum capacitor
		12/15VDC	22uF/25V	1uF/50F	10uF/50V Tantalum capacitor
		24VDC	22uF/50V	1uF/50F	10uF/50V Tantalum capacitor
Vin:48VDC	100uF/100V	3.3/5VDC	22uF/16V	1uF/50F	10uF/50V Tantalum capacitor
		9/12/15/24VDC	10uF/50V	1uF/50F	10uF/50V Tantalum capacitor
		12/15VDC	22uF/25V		
		24VDC	22uF/50V		

EMC Circuit



Model	Vin: 24VDC
FUSE	Choose according to actual input current
C0/C4	330μF/50V
C1/C2	10μF/50V
C3	22μF/50V
LCM1	470μH, recommended to use MORN SUN's FL2D-13-471R3
CY1/CY2	1nF/400VAC



Model	Vin: 48VDC
FUSE	Choose according to actual input current
C0	200μF/100V
C1/C2	10μF/100V
C3	22μF/100V
LCM1	470μH, recommended to use MORN SUN's FL2D-13-471R3
C4	330μF/100V
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.