

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≥3500K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94-V0 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)		
URA1205S-3WR3	12	4.5-18	±5	±13	±250	74	1000
URA1212S-3WR3			±12	±5	±104	77	470
URA1215S-3WR3			±15	±42	±83	77	330
URA1224S-3WR3			±24	±3	±52	76	220
URB1203S-3WR3			3.3	38	758	68	1800
URB1205S-3WR3			5	25	500	73	2200
URB1209S-3WR3			9	14	278	74	1000
URB1212S-3WR3			12	10	208	77	680
URB1215S-3WR3			15	8	167	74	470
URB1224S-3WR3			24	5	104	76	330
URA2405S-3WR3	24	9-36	±5	±15	±300	78	1000
URA2409S-3WR3			±9	±8	±167	78	680
URA2412S-3WR3			±12	±6	±125	79	470
URA2415S-3WR3			±15	±5	±100	80	330
URB2403S-3WR3			3.3	38	758	75	2700
URB2405S-3WR3			5	30	600	76	2200
URB2406S-3WR3			6	25	500	79	1800
URB2409S-3WR3			9	17	333	79	1000
URB2412S-3WR3			12	13	250	82	680
URB2415S-3WR3			15	10	200	83	470
URB2424S-3WR3			24	6	125	81	330
URA4805S-3WR3	48	18-72	±5	±15	±300	79	1000
URA4809S-3WR3			±9	±8	±167	81	680
URA4812S-3WR3			±12	±6	±125	83	470
URA4815S-3WR3			±15	±5	±100	83	330
URB4803S-3WR3			3.3	38	758	74	2700
URB4805S-3WR3			5	30	600	81	2200

URB4809S-3WR3			9	17	333	83	1000
URB4812S-3WR3			12	13	250	83	680
URB4815S-3WR3			15	10	200	83	470
URB4824S-3WR3			24	6	125	83	330

customized accepted ,pls contact sales for details

Input Specifications

Item	Min	Typ	Max	Test Conditions	
Input Current (full load / no-load)	-	489/12mA	502/18mA	12VDC nominal input series, nominal input voltage	3.3V output
	-	625/12mA	641/18mA		Others
	-	238/5mA	245/12mA	24VDC nominal voltage input series, nominal input	3.3V output
	-	305/5mA	313/12mA		5V output
	-	298/10mA	305/16mA		Others
Reflected Ripple Current	-	50mA	-		
	12VDC	15.5VDC	-	24VDC nominal input voltage	
Ctrl	NONE-				
	NONE				
Hot Plug	Unavailable				

Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±2%	5%-100% load
Line Regulation	±0.1%	±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

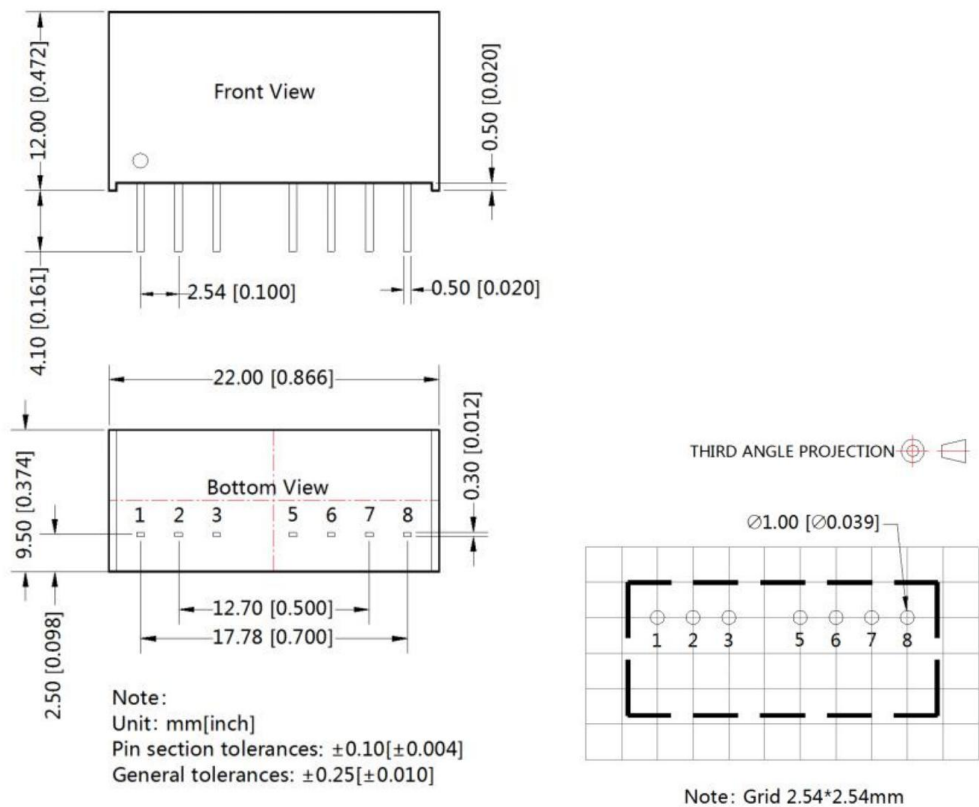
General Specifications

Switching Frequency	300KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	15℃ (Typ)	
Temperature Coefficient	0.03%/℃	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%	Non-condensing

Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	4.6g (Typ)	

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

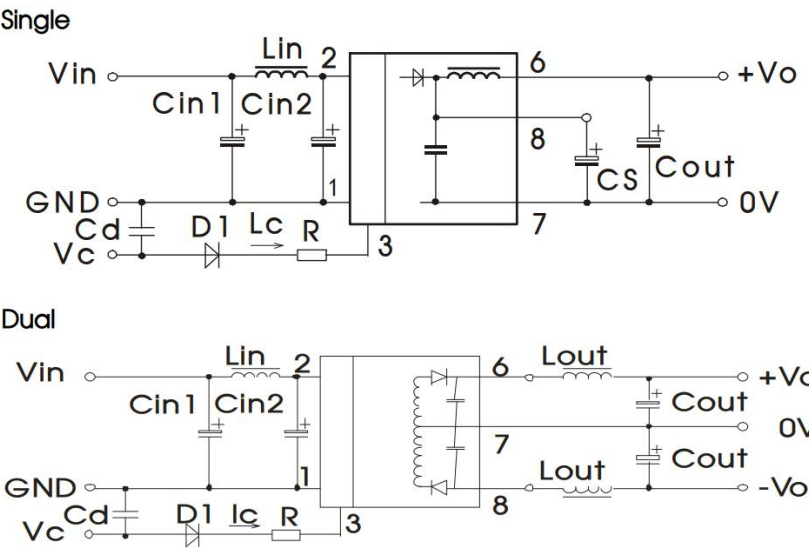
Dimensions and Recommended Layout



Pins

Pin	Single	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.