

**FEATURES:**

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40°C~+85°C
- No additional components required
- Stable performance and high reliability (MTBF≥1000K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94-V0 requirements
- DIP package



**Selection Guide**

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)		
	Norminal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)			
URA2405LD-15WR3	24	9-36	±5	0	±1500	86			
URA2409LD-15WR3			±9	0	±833	88			
URA2412LD-15WR3			±12	0	±625	88			
URA2415LD-15WR3			±15	0	±500	88			
URB2403LD-15WR3			3.3	0	4545	86			
URB2405LD-15WR3			5	0	3000	88			
URB2409LD-15WR3			9	0	1667	88			
URB2412LD-15WR3			12	0	1250	89			
URB2415LD-15WR3			15	0	1000	90			
URB2424LD-15WR3			24	0	625	90			
URA4805LD-15WR3			48	18-72	±5	0	±1500	86	
URA4812LD-15WR3	±12	0			±625	88			
URA4815LD-15WR3	±15	0			±500	88			
URB4803LD-15WR3	3.3	0			4545	86			
URB4805LD-15WR3	5	0			3000	88			
URB4809LD-15WR3	9	0			1667	88			
URB4812LD-15WR3	12	0			1250	89			
URB4815LD-15WR3	15	0			1000	90			
URB4824LD-15WR3	24	0			625	90			
URA1D05LD-15WR3	110	40-160			±5	0	±1500	86	
URA1D12LD-15WR3					±12	0	±625	88	
URA1D15LD-15WR3			±15	0	±500	88			
URB1D03LD-15WR3			3.3	0	4545	86			
URB1D05LD-15WR3			5	0	3000	88			
URB1D09LD-15WR3			9	0	1667	88			
URB1D12LD-15WR3			12	0	1250	89			
URB1D15LD-15WR3			15	0	1000	90			
URB1D24LD-15WR3			24	0	625	90			

\*\*customized accepted ,pls contact sales for details\*\*

**Input Specifications**

Input Voltage	Input Voltage Range (Vdc)	Nom(Vdc)	Max (Vdc)
	9-36	24	36
	18-72	48	72
	40-160	110	160
Hot Plug	Unavailable		

**Output Specifications**

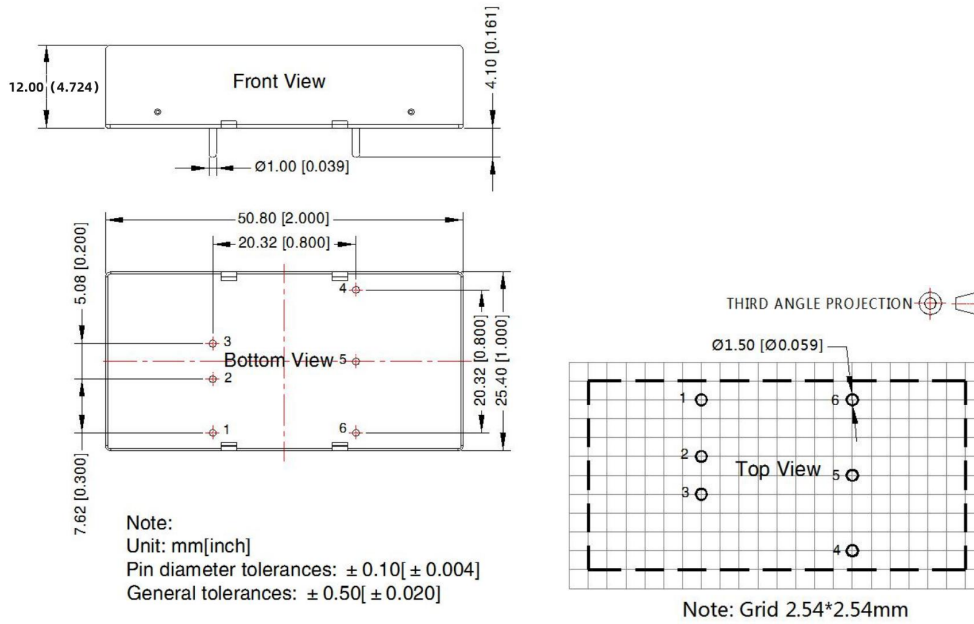
Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	0-100% load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load
Load Regulation	±0.5%	±1%	5%-100% load
Ripple&Noise	-	100mVp-p	20MHz bandwidth, 5%-100% load
Transient Recovery Time	300µs	500µs	25% load step change, Nominal input voltage
Over-voltage Protection	-	160%Vo	110%Vo(Min)
Over-current Protection	140%Io	190%Io	110%Io(Min)
Short-circuit Protection			Continuous, self-recovery

**General Specifications**

Switching Frequency	300KHz(Typ)	PWM mode
MTBF	1000 K hours	MIL-HDBK-217F@25°C
Temperature Coefficient	0.03%/°C	100% full load
Isolation (Input-Output)	1.5KVDC	
Insulation Resistance	1000MΩ	Input-output resistance 500Vdc
Operating Temperature	-40~+85°C	
Storage Temperature	-55~+125°C	
Storage Humidity	5-95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Aluminum alloy	
Weight	60g (Typ)	

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

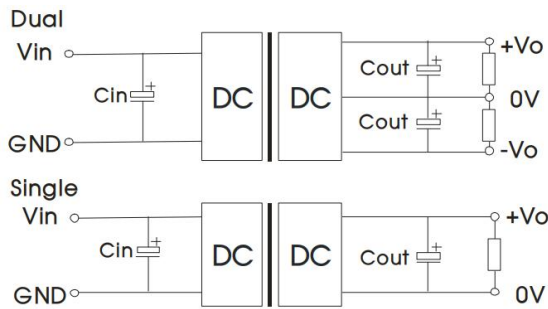
**Dimensions and Recommended Layout**



Pins

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

Recommended Circuit



Cin		Single Vo (VDC)	Cout	Dual Vo (VDC)	Cout
Vin: 24VDC	Vin: 48VDC				
100 $\mu$ F/50V	100 $\mu$ F/100V	3.3/5	470 $\mu$ F/16V	$\pm 5$	220 $\mu$ F/16V
		9	220 $\mu$ F/16V	$\pm 9$	100 $\mu$ F/16V
		12/15	220 $\mu$ F/25V	$\pm 12/\pm 15$	100 $\mu$ F/25V
		24	100 $\mu$ F/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.

