

**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
- Metal case
- DIP package

**Selection Guide**

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)		
	Norminal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)			
URB2403LD-30WR3	24	9-36	3.3	0	6000	85	10000		
URB2405LD-30WR3			5	0	6000	86	10000		
URB2409LD-30WR3			9	0	3333	88	4700		
URB2412LD-30WR3			12	0	2500	90	2700		
URB2415LD-30WR3			15	0	2000	90	1680		
URB2424LD-30WR3			24	0	1250	90	680		
URA2405LD-30WR3			±5	0	±3000	86	2000		
URA2412LD-30WR3			±12	0	±1250	89	1250		
URA2415LD-30WR3			±15	0	±1000	89	680		
URA2424LD-30WR3			±24	0	±625	89	470		
URB4803LD-30WR3	48	18-72	3.3	0	6000	85	10000		
URB4805LD-30WR3			5	0	6000	86	10000		
URB4812LD-30WR3			12	0	2500	90	2700		
URB4815LD-30WR3			15	0	2000	90	1680		
URB4824LD-30WR3			24	0	1250	90	680		
URA4805LD-30WR3			5	0	6000	86	10000		
URA4812LD-30WR3			12	0	2500	90	2700		
URA4815LD-30WR3			15	0	2000	90	1680		
URB1D05LD-30WR3			110	40-160	5	0	6000	86	10000
URB1D12LD-30WR3					12	0	2500	90	2700
URB1D15LD-30WR3	15	0			2000	90	1680		
URB1D24LD-30WR3	24	0			1250	90	680		
URA1D05LD-30WR3	5	0			6000	86	10000		
URA1D12LD-30WR3	12	0			2500	90	2700		
URA1D15LD-30WR3	15	0			2000	90	1680		

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

**Input Specifications**

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

**Output Specifications**

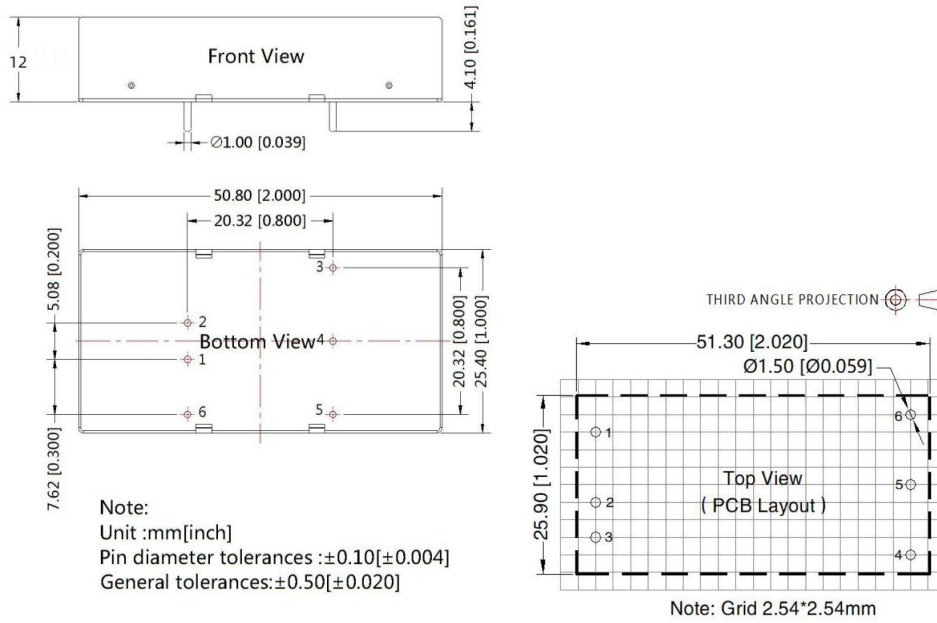
Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	0-100% load
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load
Load Regulation	±0.5%	±1%	5%-100% load
Ripple&Noise	-	100mVp-p	20MHz bandwidth, 5%-100% load
Transient Recovery Time	300µs	500µs	25% load step change, Nominal 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.

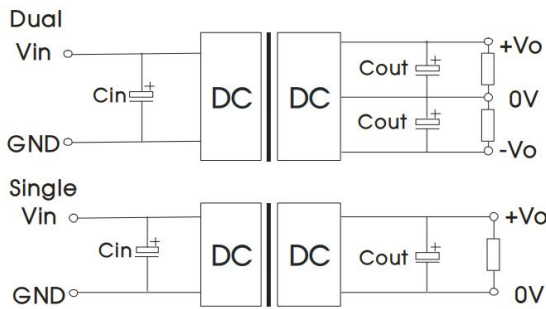
**Dimensions and Recommended Layout**



**Pins**

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

