

FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: $-40^{\circ}\text{C}\sim+105^{\circ}\text{C}$
- No additional components required
- Stable performance and high reliability (MTBF \geq 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 (%/Typ)	Capacitive Load(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
WRD050505S-2W	5	4.5-9	5	20	200	67	680
WRD050909S-2W			9	11	111	71	470
WRD051212S-2W			12	8	83	72	330
WRD051515S-2W			15	7	67	73	220
WRD120505S-2W	12	9-18	5	20	200	75	680
WRD120909S-2W			9	11	111	77	470
WRD121212S-2W			12	8	83	80	330
WRD121515S-2W			15	7	67	79	220
WRD240505S-2W	24	18-36	5	20	200	76	680
WRD240909S-2W			9	11	111	78	470
WRD241212S-2W			12	8	83	80	330
WRD241515S-2W			15	7	67	79	220
WRD480505S-2W	48	36-72	5	20	200	75	680
WRD480909S-2W			9	11	111	78	470
WRD481212S-2W			12	8	83	79	330
WRD481515S-2W			15	7	67	78	220

customized accepted, pls contact sales for details

Output Specifications

Item	Typ	Max	Test Conditions
Positive voltage accuracy	$\pm 1\%$	$\pm 3\%$	
Negative voltage accuracy	$\pm 3\%$	$\pm 5\%$	
Load Regulation	$\pm 0.5\%$	$\pm 1\%$	10%-100% load
Line regulation	$\pm 0.2\%$	$\pm 0.5\%$	Input voltage from low to high
Temperature drift (Vout)		$\pm 0.03\%/^{\circ}\text{C}$	
Ripple&Noise	50mVp-p	100mVp-p	20MHz bandwidth, 5%-100% load

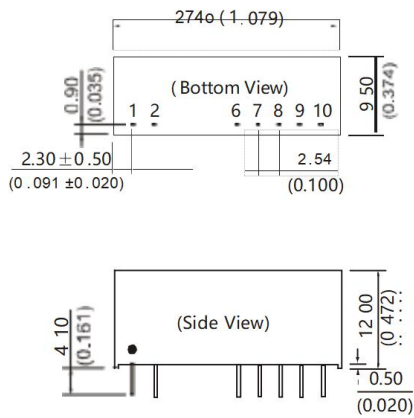
General Specifications

Switching Frequency	300KHz(Typ)	100% full load, nominal input voltage
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Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	15°C (Typ)	
Temperature Coefficient	0.03%/°C	100% full load
Pin Soldering Resistance Temperature	300°C	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°C	
Storage Temperature	-55~+125°C	
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)	

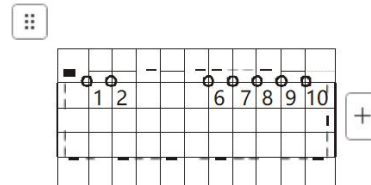
**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25°C room temperature environment.

Dimensions and Recommended Layout



First Angle Projection

RECOMMENDED FOOTPRINT
Top view, grid: 2.54 mm (0.1 inch)
diameter: 1.00 mm (0.039 inch)



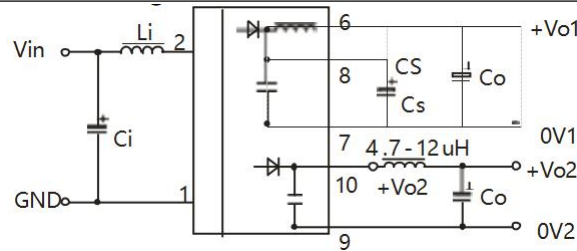
Note:
Unit: mm (inch)
Pin section: 0.50 * 0.30 mm (0.020 * 0.012 inch)
Pin section tolerances: ±0.05 mm (±0.002 inch)
General tolerances: ±0.25 mm (±0.010 inch)

Pins

Pin	Single		
1	GND		
2	Vin		
6	+Vo1		
7	0V1		
8	CS		

9	0V2		
10	+Vo2		

Recommended Circuit



Vin	5VDC&12VDC	24VDC&48VDC
Cin1	100uF	10-47uF
Lin	10-120uH	
Cout	100uF	

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.