

FEATURES:

- Fixed voltage input, unregulated single/dual output, 1W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 3KV
- 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)		
E0303S-1WR3	3.3	2.97-3.63	± 3.3	15	150	78	1200
E0305S-1WR3			± 5	10	100	82	1200
E0309S-1WR3			± 9	6	56	85	470
E0312S-1WR3			± 12	5	42	82	220
E0315S-1WR3			± 15	4	34	82	220
E0324S-1WR3			± 24	2	21	84	100
F0303S-1WR3			3.3	30	303	79	2400
F0305S-1WR3			5	20	200	82	2400
F0309S-1WR3			9	11	111	85	1000
F0312S-1WR3			12	8	83	82	560
F0315S-1WR3			15	7	67	82	560
F0324S-1WR3			24	4	42	84	220
E0503S-1WR3			5V	4.5-5.5V	± 3.3	15	152
E0505S-1WR3	± 5	10			100	82	1200
E0509S-1WR3	± 9	6			56	83	470
E0512S-1WR3	± 12	5			42	83	220
E0515S-1WR3	± 15	4			34	83	220
E0524S-1WR3	± 24	3			21	85	100
F0503S-1WR3	3.3	30			303	74	2400
F0505S-1WR3	5	20			200	82	2400
F0509S-1WR3	9	11			111	83	1000
F0512S-1WR3	12	8			83	83	560
F0515S-1WR3	15	7			67	83	560
F0524S-1WR3	24	4			42	85	220
F0909S-1WR3	9	8.1-9.9			9	12	111
E1203S-1WR3	12V	10.8-13.2V	± 3.3	15	152	75	1200
E1205S-1WR3			± 5	10	100	80	1200

E1209S-1WR3			±9	6	56	80	470		
E1212S-1WR3			±12	5	42	81	220		
E1215S-1WR3			±15	4	34	81	220		
E1224S-1WR3			±24	3	21	80	100		
F1203S-1WR3			3.3	30	303	75	2400		
F1205S-1WR3			5	20	200	80	2400		
F1209S-1WR3			9	11	111	80	1000		
F1212S-1WR3			12	8	83	80	560		
F1215S-1WR3			15	7	67	81	560		
F1224S-1WR3			24	4	42	81	220		
E1505S-1WR3			15V	13.5-16.5V	±5	10	100	80	1200
E1509S-1WR3					±9	6	56	80	470
E1512S-1WR3	±12	5			42	80	220		
E1515S-1WR3	±15	4			34	81	220		
E1524S-1WR3	±24	3			21	81	100		
F1505S-1WR3	5	20			200	80	2400		
F1509S-1WR3	9	11			111	80	1000		
F1512S-1WR3	12	8			83	80	560		
F1515S-1WR3	15	7			67	81	560		
F1524S-1WR3	24	4			42	81	220		
E2403S-1WR3	24V	21.6-26.4V			±3.3	30	303	76	1200
E2405S-1WR3					±5	10	100	80	1200
E2409S-1WR3			±9	6	56	80	470		
E2412S-1WR3			±12	5	42	81	220		
E2415S-1WR3			±15	4	34	79	220		
E2424S-1WR3			±24	3	21	80	100		
F2403S-1WR3			3.3	30	303	75	2400		
F2405S-1WR3			5	20	200	79	2400		
F2407S-1WR3			7.2	13	139	80	1000		
F2409S-1WR3			9	11	111	80	1000		
F2412S-1WR3			12	8	83	81	560		
F2415S-1WR3			15	7	67	81	560		
F2424S-1WR3	24	4	42	81	220				

customized accepted,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter		
Ctrl	NONE		
	NONE		
Hot Plug	Unavailable		

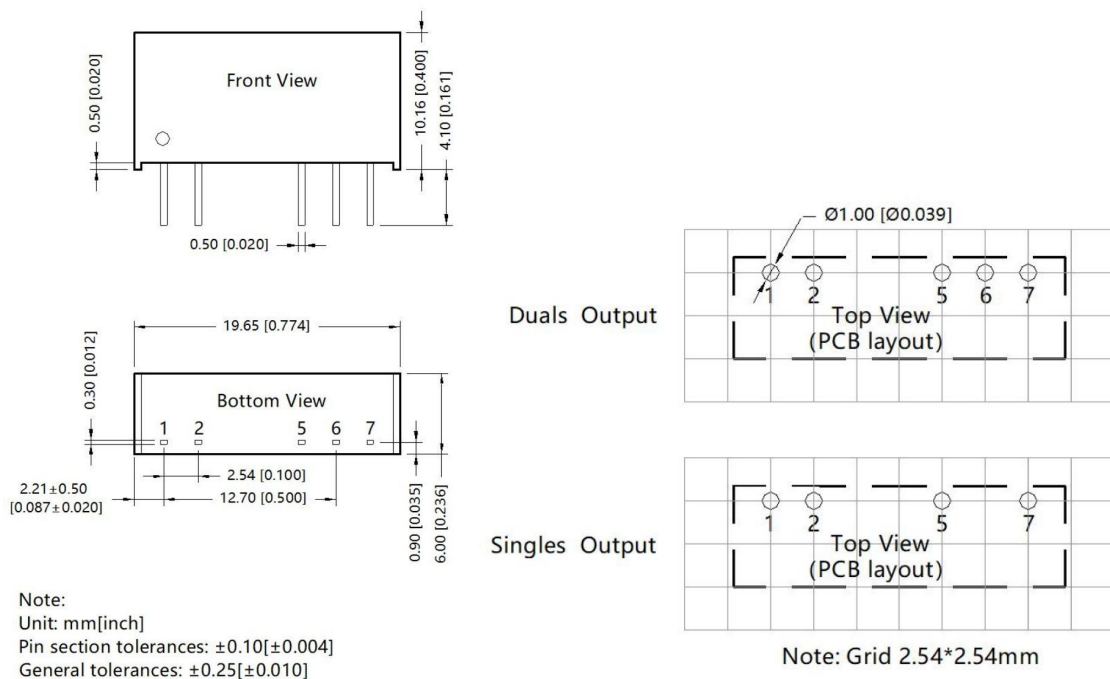
Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	±1%	±3%	input voltage range and load

Line Regulation	±0.2%	±0.5%	Input voltage from low to high voltage, full load
Load Regulation	±0.5%	±1%	10% to 100% full load
Ripple&Noise	50mVp-p	150mVp-p	20MHz Bandwidth, full load
General Specifications			
Switching Frequency	300KHz(Typ)		100% full load, nominal input voltage
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)	1.5KVDC		Input-output electric strength test for 1 minute with a leakage current
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	2.1g (Typ)		

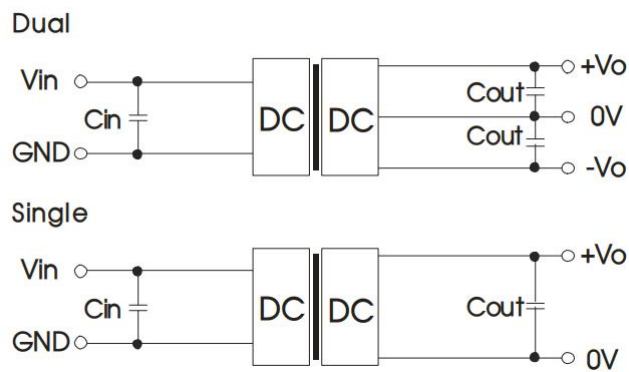
**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25°C room temperature environment.

Dimensions and Recommended Layout



Pinout			
Pin	Singe	Dual	
1	Vin	Vin	
2	GND	GND	
5	0V	-Vo	
6	No Pin	0V	
7	+Vo	+Vo	

Recommended Circuit



Recommended input and output capacitor values					
Vin	Cin	Single Vout	Cout	Dual Vout	Cout
3.3VDC	10uF/16VDC	3.3VDC	10uF/16V	±3.3VDC	4.7uF/16V
5VDC	4.7uF/16V	5VDC	10uF/16V	±5VDC	4.7uF/16V
9VDC	2.2uF/25V	7.2VDC	2.2uF/16V	±9VDC	1uF/16V
12VDC	2.2uF/25VDC	9VDC	2.2uF/16V	±12VDC	1uF/25V
15VDC	2.2uF/25VDC	12VDC	2.2uF/25V	±15VDC	0.47uF/25V
24VDC	1uF/50VDC	15VDC	1uF/25V	±24VDC	0.47uF/50V
-	-	24VDC	1uF/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.