

FEATURES:

- Fixed voltage input, single/dual unregulated, 0.25W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 3KV
- 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 V-0 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-W2R3	3.3	2.97-3.63	±3.3	4	38		
E0305S-W2R3			±5	2	25		
E0309S-W2R3			±9	1	14		
E0312S-W2R3			±12	1	10		
E0315S-W2R3			±15	1	8		
E0324S-W2R3			±24	1	6		
F0303S-W2R3			3.3	7	76		
F0305S-W2R3			5	5	50		
F0309S-W2R3			9	2	28		
F0312S-W2R3			12	2	21		
F0315S-W2R3			15	1	17		
F0324S-W2R3			24	1	10		
E0503S-W2R3	5	4.5-5.5	±3.3	4	38		
E0505S-W2R3			±5	2	25		
E0509S-W2R3			±9	1	14		
E0512S-W2R3			±12	1	10		
E0515S-W2R3			±15	1	8		
E0524S-W2R3			±24	1	6		
F0503S-W2R3			3.3	7	76		
F0505S-W2R3			5	5	50		
F0509S-W2R3			9	2	28		
F0512S-W2R3			12	2	21		
F0515S-W2R3			15	1	17		
F0524S-W2R3			24	1	10		
E1203S-W2R3	12	10.8-13.2	±3.3	4	38		
E1205S-W2R3			±5	2	25		
E1209S-W2R3			±9	1	14		

E1212S-W2R3			±12	1	10		
E1215S-W2R3			±15	1	8		
E1224S-W2R3			±24	1	6		
F1203S-W2R3			3.3	7	76		
F1205S-W2R3			5	5	50		
F1209S-W2R3			9	2	28		
F1212S-W2R3			12	2	21		
F1215S-W2R3			15	1	17		
F1224S-W2R3			24	1	10		
E1505S-W2R3	15	13.5-16.5	±5	2	25		
E1509S-W2R3			±9	1	14		
E1512S-W2R3			±12	1	10		
E1515S-W2R3			±15	1	8		
E1524S-W2R3			±24	1	6		
F1505S-W2R3			5	5	50		
F1509S-W2R3			9	2	28		
F1512S-W2R3			12	2	21		
F1515S-W2R3			15	1	17		
F1524S-W2R3			24	1	10		
E2405S-W2R3	24	21.6-26.4	±5	2	25		
E2409S-W2R3			±9	1	14		
E2412S-W2R3			±12	1	10		
E2415S-W2R3			±15	1	8	70	100
E2424S-W2R3			±24	1	6		
F2403S-W2R3			3.3	7	76		
F2405S-W2R3			5	5	50		
F2407S-W2R3			7.2	3	35		
F2409S-W2R3			9	2	28		
F2412S-W2R3			12	2	21		
F2415S-W2R3			15	1	17		
F2424S-W2R3			24	1	10		

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter		
Ctrl	NONE		
	NONE		
Hot Plug	Unavailable		

Output Specifications

Item		Min	Typ	Max	Test Conditions
Voltage Accuracy		-5%	2.5%	10%	Input voltage range and load
Line Regulation		-	-	±1.2%	Input voltage from low to high voltage, full load
Load Regulation	3.3V,±3.3Vout	-	-	15%	10% to 100% full load

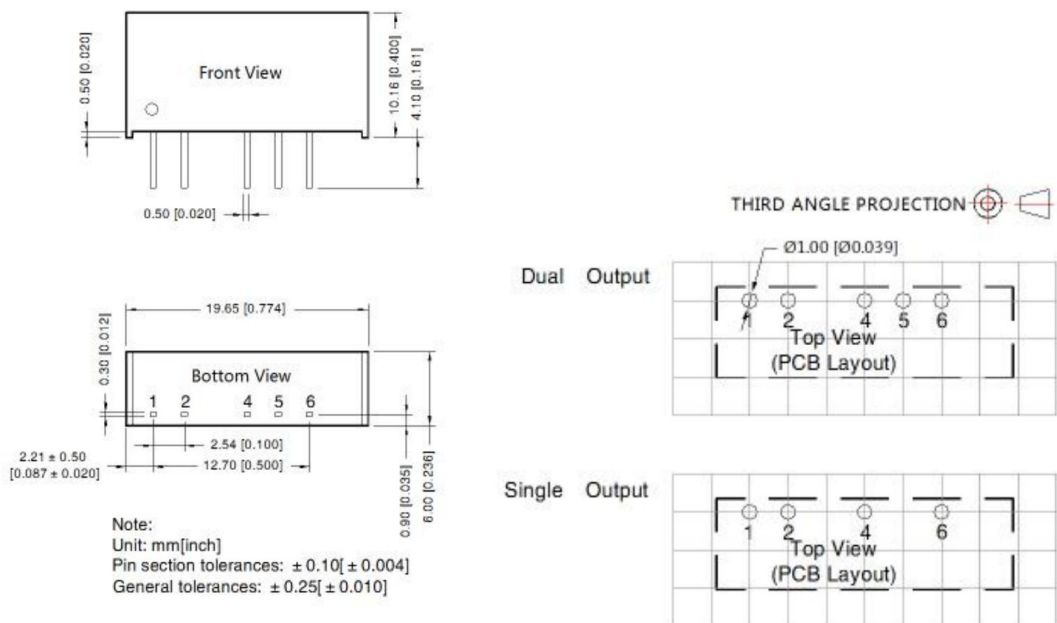
	5V,±5Vout	-	-	10%	
	9V,±9Vout	-	-	8%	
	12V,±12Vout	-	-	6%	
	15V,±15Vout	-	-	6%	
	24V,±24Vout	-	-	5%	
Ripple&Noise		-	50mVp-p	75mVp-p	20MHz Bandwidth, full load

Gerneral Specifications

Switching Frequency	250KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	25℃ (Typ)	
Temperature Coefficient	0.02%/℃	100% full load
Pin Soldering Resistance Temperature	300℃	Soldering spot is 1.5mm away from case for 10 seconds
Isolation (Input-Output)	3KVDC	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℃	
Storage Temperature	-55~+125℃	
Storage Humidity	95%RH	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	1.9g (Typ)	

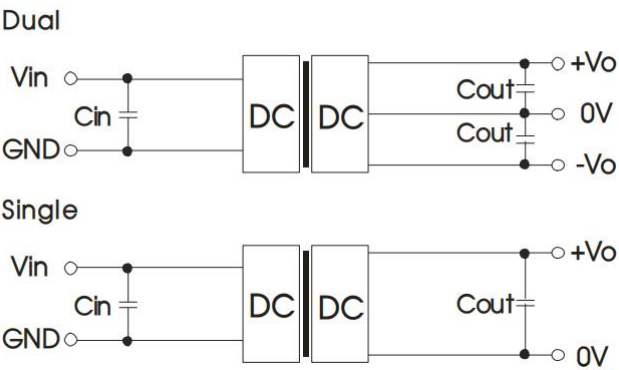
**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.

Dimensions and Recommended Layout



Pin-out			
Pin	Singe	Dual	
1	Vin	Vin	
2	GND	GND	
4	0V	-Vo	
5	No Pin	0V	
6	+Vo	+Vo	

Recommended Circuit



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

*The final interpretation right of the product belongs to ECCO ELECTRONICS.