

FEATURES:

- Fixed voltage input, unregulated single output, 0.25W
- 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 $\geq 3500\text{K}$ 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)	Max Capacitive Load (μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
F0303M-W2R3	3.3	2.97-3.63	3.3	8	76	74	220
F0305M-W2R3			5	5	50	76	
F0309M-W2R3			9	3	28	75	
F0312M-W2R3			12	2	21	74	
F0315M-W2R3			15	2	17	74	
F0324M-W2R3			24	1	10	74	
F0503M-W2R3	5	4.5-5.5	3.3	8	76	74	
F0505M-W2R3			5	5	50	76	
F0509M-W2R3			9	3	28	75	
F0512M-W2R3			12	2	21	74	
F0515M-W2R3			15	2	17	74	
F0524M-W2R3			24	1	10	74	
F1203M-W2R3	12	10.8-13.2	3.3	8	76	74	
F1205M-W2R3			5	5	50	76	
F1209M-W2R3			9	3	28	75	
F1212M-W2R3			12	2	21	75	
F1215M-W2R3			15	2	17	74	
F1224M-W2R3			24	1	10	74	
F1503M-W2R3	15	13.5-16.5	3.3	8	76	74	
F1505M-W2R3			5	5	50	76	
F1509M-W2R3			9	3	28	75	
F1512M-W2R3			12	2	21	74	
F1515M-W2R3			15	2	17	74	
F1524M-W2R3			24	1	10	74	
F2403M-W2R3	24	21.6-26.4	3.3	8	76	74	
F2405M-W2R3			5	5	50	76	
F2409M-1WR3			9	3	28	75	

F2412M-W2R3			12	2	21	74	
F2415M-W2R3			15	2	17	74	
F2424M-W2R3			24	1	10	74	

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter
Ctrl	NONE
	NONE
Hot Plug	Unavailable

Output Specifications

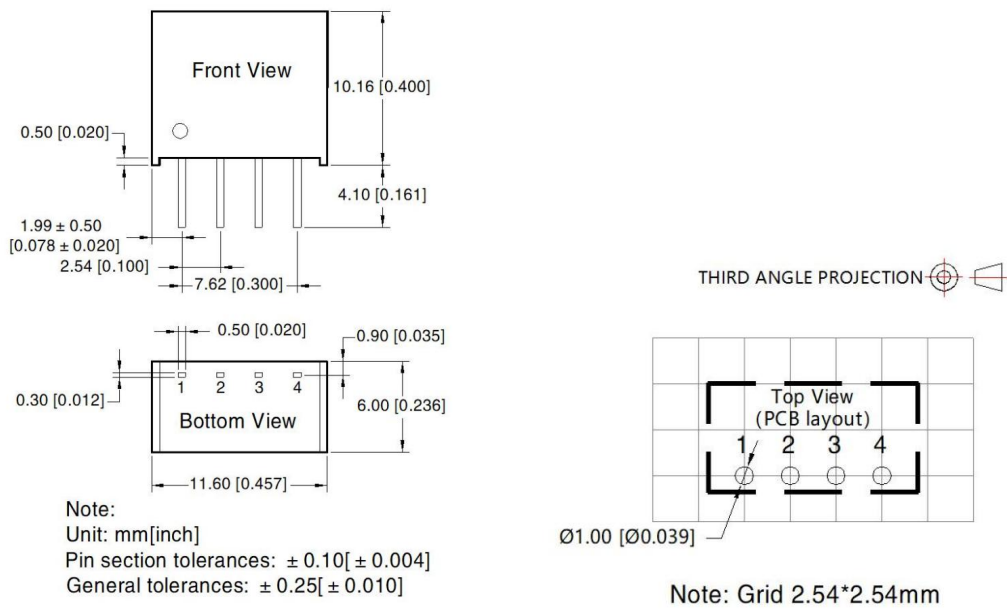
Item	Min	Typ	Max	Test Conditions
Voltage Accuracy	-	±2.5%	±10%	Input voltage range and load
Line Regulation	-	-	±1.2%	Input voltage ±1%
Load Regulation	3.3Vout	-	7%	10% to 100% full load
	5Vout	-	5%	
	9Vout	-	5%	
	12Vout	-	5%	
Ripple&Noise	-	50mVp-p	150mVp-p	20MHz Bandwidth, full load

General 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	1.4g (Typ)	

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

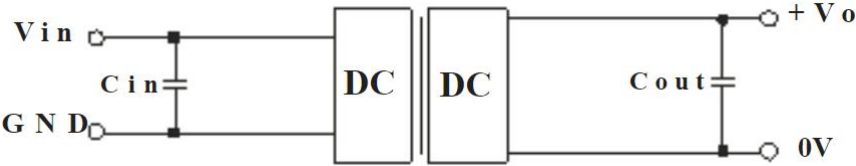
Dimensions and Recommended Layout



Pins

Pin	Mark		
1	GND	3	0V
2	Vin	4	+Vo

Recommended Circuit



Recommended input and output capacitor values

Vin(V)	Cin(μF)	Vout(V)	Cout(μF)
3.3/5	4.7	3.3/5	10
12	2.2	9	4.7
15/24	1	12	2.2

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.

