

FEATURES:

- Fixed voltage input, regulated single output, 1W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40℃~+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥2 million hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94 V-0 requirements
- SMD 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)		
IB0503XT-1WR3	5	4.75-5.25	3.3	30	303	68	2200
IB0505XT-1WR3			5	20	200	72	2200
IB0509XT-1WR3			9	12	111	70	1000
IB0512XT-1WR3			12	9	83	71	560
IB0515XT-1WR3			15	7	67	71	560
IB1203XT-1WR3	12	11.4-12.6	3.3	30	303	68	2200
IB1205XT-1WR3			5	20	200	72	2200
IB1209XT-1WR3			9	12	111	70	1000
IB1212XT-1WR3			12	9	83	71	560
IB1215XT-1WR3			15	7	67	71	560
IB1503XT-1WR3	15	14.25-15.75	3.3	30	303	68	2200
IB1505XT-1WR3			5	20	200	72	2200
IB1509XT-1WR3			9	12	111	70	1000
IB1512XT-1WR3			12	9	83	71	560
IB1515XT-1WR3			15	7	67	71	560
IB2403XT-1WR3	24	22.8-25.2	3.3	30	303	68	2200
IB2405XT-1WR3			5	20	200	72	2200
IB2409XT-1WR3			9	12	111	70	1000
IB2412XT-1WR3			12	9	83	71	560
IB2415XT-1WR3			15	7	67	71	560

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Input Specifications

Input Filter	Capacitive Filter	
Ctrl	NONE	
	NONE	
Hot Plug	Unavailable	

Output Specifications

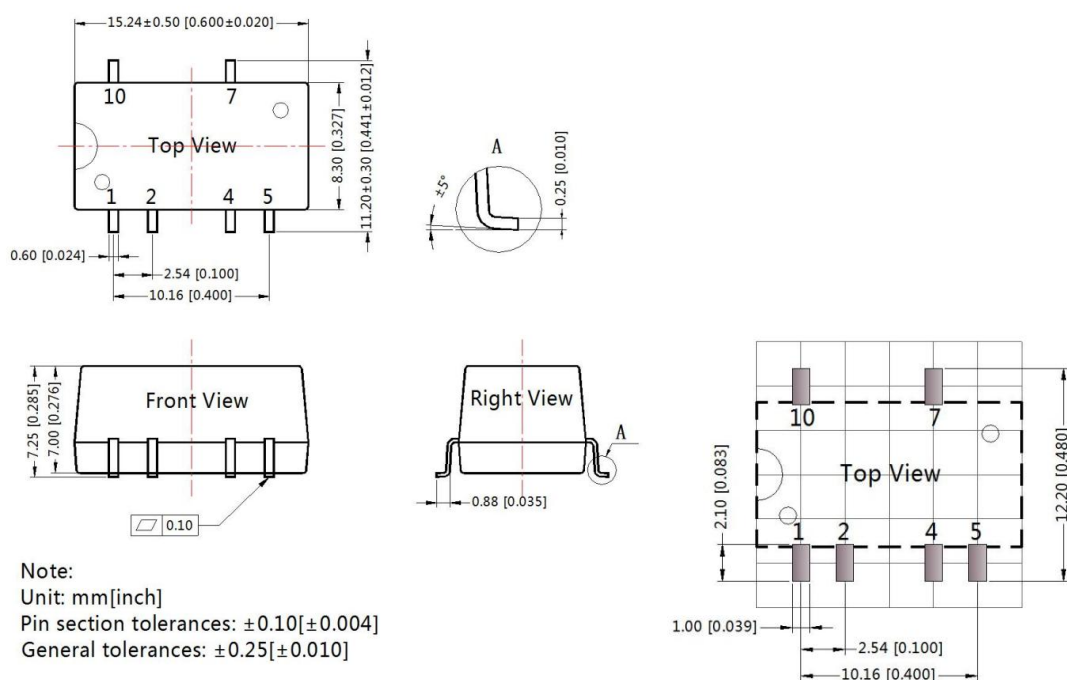
Item	Typ	Max	Test Conditions
Voltage Accuracy	-	±3%	Input voltage range and load
Line Regulation	-	±1.2%	Input voltage ±1%
Load Regulation	-	±3%	10% to 100% full load
Ripple&Noise	50mVp-p	75mVp-p	20MHz Bandwidth, full load

General Specifications

Switching Frequency	250KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	25°C (Typ)	
Temperature Coefficient	0.02%/°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	1.3g (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	Mark		
1	GND		
2	Vin		
4	0V		
5	0V		
7	+Vo		
10	NC		

Recommended Circuit



Vin	C1	Vout	C2
3.3/5V	4.7uF/10V	3.3/5/±3.3/±5V	10uF/10V
12V	2.2uF/25V	12/9/±9/±12V	2.2uF/25V
15V	1uF/25V	15/±15V	1uF/25V
24V	1uF/50V	24/±24V	0.47uF/25V

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.