

FEATURES:

- Fixed voltage input, regulated single output, 0.75W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 1.5KV
- Working temperature: -40°C~+85°C
- 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
- 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-W75R3	5	4.75-5.25	3.3	20	200	68	2400
IB0505XT-W75R3			5	15	150	72	2400
IB0509XT-W75R3			9	9	83	72	1000
IB0512XT-W75R3			12	7	62	73	560
IB0515XT-W75R3			15	5	50	74	560
IB1205XT-W75R3	12	11.4-12.6	5	15	150	72	2400
IB1212XT-W75R3			12	7	62	73	560
IB1215XT-W75R3			15	5	50	74	560

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Input Specifications

Input Voltage Range	Input Voltage Range (Vdc)	Max (Vdc)	Input Static Current (mA)
	4.75-5.25	5.25	
	11.4-12.6	12	
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	-	±0.25%	Input voltage ±1%
Load Regulation	-	±2%	10% to 100% full load
Ripple&Noise	50mVp-p	75mVp-p	20MHz Bandwidth, full load

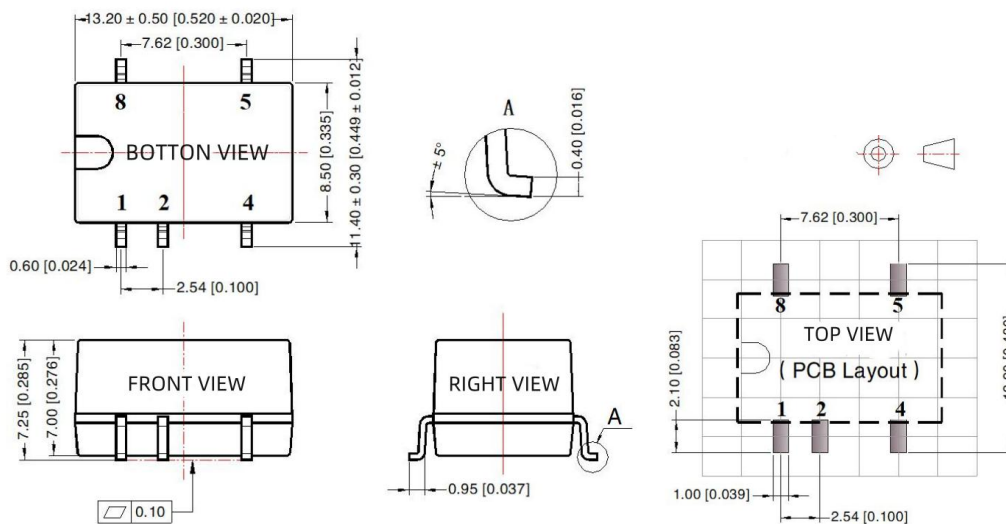
General Specifications

Switching Frequency	250KHz(Typ)	100% full load, nominal input voltage
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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~+85°C	
Storage Temperature	-55~+125°C	
Storage Humidity	<95%RH	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94V-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

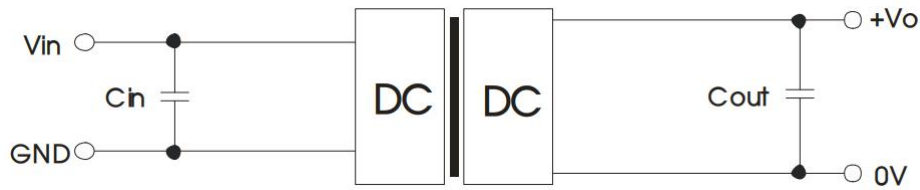


Note:
Unit: mm[inch]
Pin section tolerances: ± 0.10 [± 0.004]
General tolerances: ± 0.25 [± 0.010]

Pins

Pin	Mark		
1	GND		
2	Vin		
4	0V		
5	+Vo		
8	NC		

Recommended Circuit



Recommended input and output capacitor values

Vin	Cin	Vout	Cout	
5VDC	4.7uF/16V	3.3/5VDC	10uF/16V	
		9/12VDC	2.2uF/16V	
		15VDC	1uF/25V	
12VDC	2.2uF/25V	5VDC	10uF/16V	
		12VDC	2.2uF/25V	
		15VDC	1uF/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.