ECCO Electronics Technology Co.,ltd

2W series DC/DC converter

Typical Performance



- ⊙Fixed Input, isolation, Unregulated Output,2W
- ⊙Isolation voltage: 1000VDC,1500VDC,3000VDC
- ⊙SIP package
- ⊙Efficiency :up to 80%
- ⊙Working temperature -40℃~+85℃
- ⊙MTBF≥35x10^{5}Hrs
- ⊙Industry standard pinout
- ⊙No heat sink required
- ⊙No external component required
- ⊙In line with RoHS codes
- ⊙Line regulation (for Vin change of ±1%): ±1.2%(max)
- ⊙Load regulation (10%-100% load) :15%
- ⊙Ripple and noise (20MHz Band width) <75mVp-p
- ⊙Temperature drift(100% full load):±0.03%/℃(max)
- ⊙Switching Frequency(Full load,nominal input):70Khz(typ)
- ⊙Storage Temperature:-55℃~+125℃
- ⊙Isolation Resistance:1000MΩ/1min
- ⊙Cooling:Free aire converction

Product Program

Part #	Input voltage range	Nominal output voltage / output current						Efficiency (%, typ)
		VO1			VO2			
		Voltage (VDC)	Min (mA)	Max (mA)	Voltage (VDC)	Min (mA)	Max (mA)	
BN2-05S05	5V（4.5~5.5VDC）	5V	40	400				
BN2-05S09		9V	22	220				
BN2-05S12		12V	16	166				
BN2-05S15		15V	13.6	136				
BN2-05S24		24V	8.4	84				
BN2-12S05	12 V（10.8~13.2VDC）	5V	40	400				
BN2-12S09		9V	22	220				
BN2-12S12		12V	16	166				
BN2-12S15		15V	13.6	136				

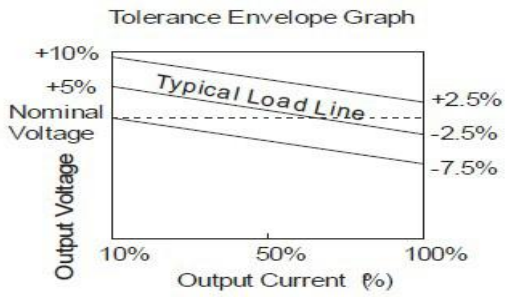
BN2-12S24		24V	8.4	84				
BN2-24S05	24V（21.6~26.4VDC）	5V	40	400				
BN2-24S09		9V	22	220				
BN2-24S12S		12V	16	166				
BN2-24S15		15V	13.6	136				
BN2-24S24		24V	8.4	84				
BN2-48S05	48V（43.2~52.8VDC）	5V	40	400				
BN2-48S09		9V	22	220				
BN2-48S12		12V	16	166				
BN2-48S15		15V	13.6	136				
BN2-48S24		24V	8.4	84				

□ Shows the nominal value of input voltage,due to space limitations ,the above list is only for some products,If other than a list of products, please contact the Company's sales department.

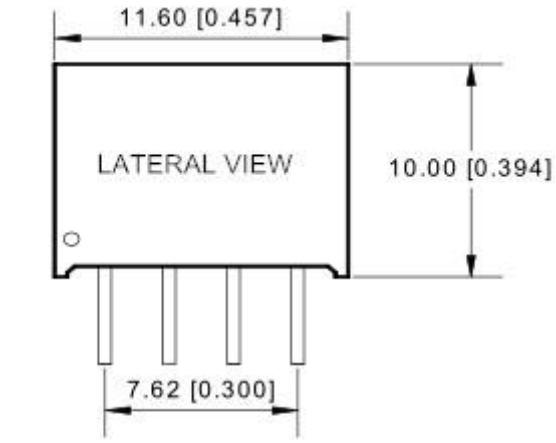
Mechanical Data

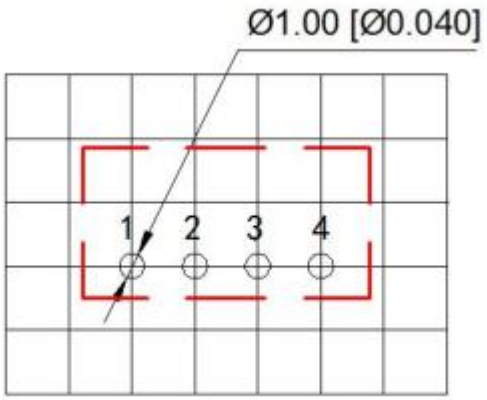
Packing Code	L x W x H ： mm	Packing No.
	11.5*7.5*10	

Typical Temperature Curve



Mechanical Dimension





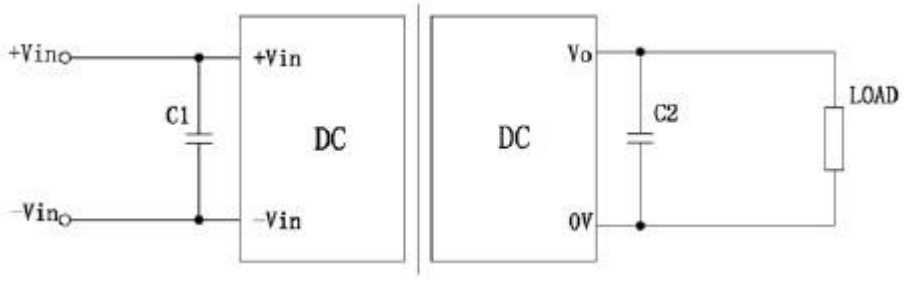
Reommended PCB Layout

UNIT:mm

Pin Assignment

PIN	1	2	3	4				
S	GND	Vin	0V	+Vo				

Recommend Circuit



C1、C2 select

INPUT VOLTAGE(S)	C1	O/P VOLTAGE(D)	C2
3.3VDC	4.7uF	3.3VDC	10uF
5VDC	4.7uF	5 VDC	10uF
12VDC	2.2uF	9 VDC	4.7uF
---	---	12 VDC	2.2 uF
---		15 VDC	1 uF

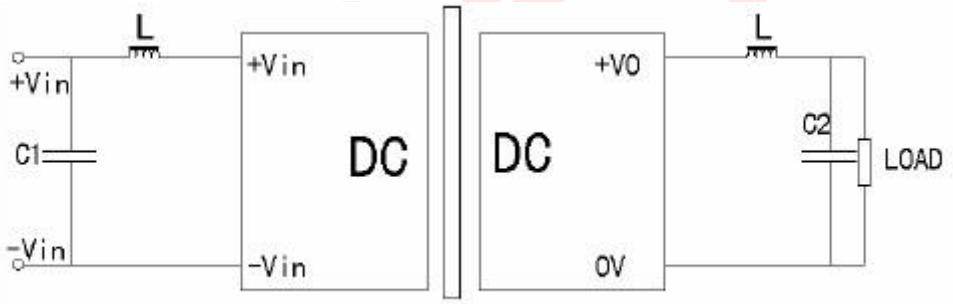
Application Note

(1)Pls don't use under no load: when the load power is less than 10% of the rated power ,we advise to connect the resistance following the output or the selection the smaller rated power module,for the resistance,the value is 5~10% of the rated power,resistance=U_2/（10%×2W）

(2)Pls don't connect the excessive capacitor in external circut :output connects C2's value can't be too big,, otherwise easily lead to module startup flow or poor starting,

According to the external table to select the capacitance

(3)For the ripple&noise with higher requirements ,we advise to connect the LC filter, the frequency of LC filter is far smaller than the DC / DC module switching frequency, prevent mutual interference, resulting in increased the ripple damage the power module,pls see below



*Note：The power modules such as the definition of the pin does not match with the hand book,please refer to the actual item.