

# **ECCO Electronics Technology Co.,ltd**

E\_S-2W series

## Typical Performance

# FEATURES

- Fixed Input, isolation, unregulated output,dual output,2W
- Isolation voltage: 3000VDC
- SIP package
- Efficiency :up to 80%
- Working temperature -40 °C ~+85 °C
- MTBF≥35x10<sup>5</sup>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<mark>%/</mark>°C(max)
- Switching Frequency(Full load,nominal input):70Khz(typ)
- Storage Temperature:-55°C~+125°C
- Isolation Resistance:1000MΩ/1min
- Cooling:Free aire converction





Product Pro	gram							
		Nominal output voltage / output current						
Part #	Input voltage range	VO1			VO2			Efficiency
		Voltage	Min	Max	Voltage	Min	Max	- (%, typ)
		(VDC)	(mA)	(mA)	(VDC)	(mA)	(mA)	
E0505S-2W	5V (4.5~5.5VDC)	±5		±200				82
E0509S-2W		±9		±111				83
E0512S-2W		±12		±83				84
E0515S-2W		±15		±67				82
E1203S-2W		±3		±303				76
E1205S-2W		±5		±200				80
E1209S-2W	12 V(10.8~13.2VDC)	±9		±111				83
E1212S-2W		±12		±83				85
E1215S-2W		±15		±67				82
E1515S-2W	15V(13.5~16.5VDC)	±15		±67				82
E2405S-2W		±5		±200				82
E2409S-2W	24V (21.6~26.4VDC)	±9		±111				82

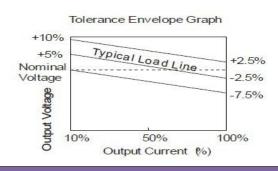
E2412S-2W	±12	±83		85
E2415S-2W	±15	±67		85

□ 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.

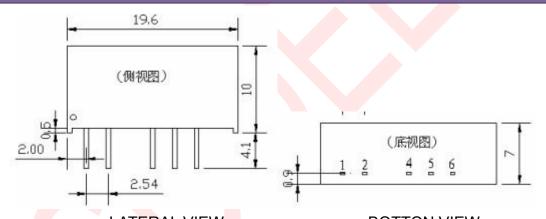
#### Mechanical Data

Packing Code	LxWxH : mm	Packing No.		
E_S-2W	19.5*7*10.0			

# Typical Temperature Curve

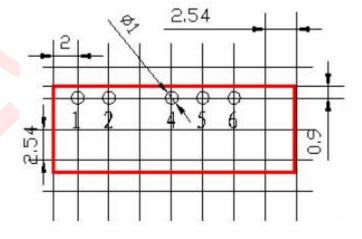


### **Mechanical Dimension**



LATERAL VIEW

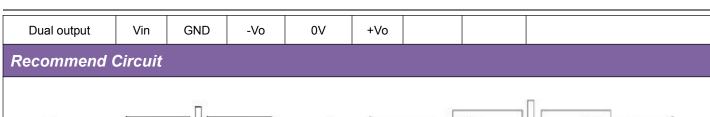
**BOTTON VIEW** 

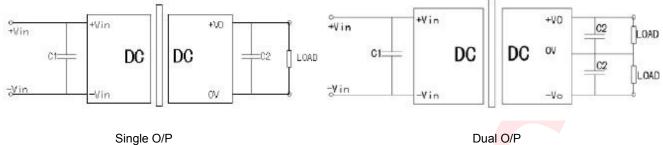


### Recommended PCB Layout

### **UNIT:mm**

Pin Assignme	ent						
PIN	1	2	4	5	6		





C1, C2 select											
INPUT VOLTAGE	C1	DUAL O/P VOLTAGE	C2	SINGLE O/P VOLTAGE	C2						
5VDC	4.7uF	±5VDC	4.7uF	3.3VDC	10uF						
12VDC	2.2uF	±9VDC	2.2uF	5VDC	10uF						
24VDC	1uF	±12VDC	1uF	9VDC	4.7uF						
		±15VDC	1uF	12VDC	2.2uF						
			-	15/24VDC	1uF						

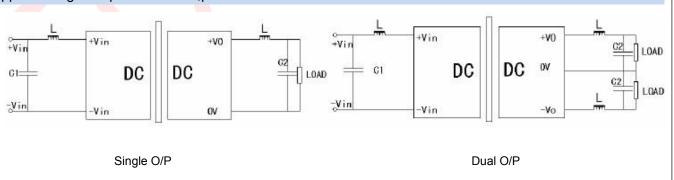
#### **Application Note**

(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<sub>2</sub>/ (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.