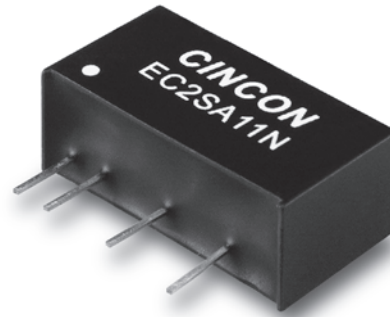


# EC2S1N

S E R I E S



## 2WATT, UNREGULATED OUTPUT DC-DC CONVERTERS

### Features

- Industry Standard SIP Packages
- Efficiency up to 86%
- 1000VDC Isolation
- Low Cost
- Unregulated Outputs
- Industry Standard Pinout
- No Tantalum Capacitors inside

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	Capacitor Load max.
				NO LOAD	FULL LOAD		
EC2SA01N	5 VDC	5 VDC	400 mA	60 mA	488 mA	82	470uF
EC2SA02N		12 VDC	167 mA		466 mA	86	470uF
EC2SA03N		15 VDC	134 mA		473 mA	85	470uF
EC2SA04N		±12 VDC	±83 mA		463 mA	86	470uF
EC2SA05N		±15 VDC	±67 mA		467 mA	86	470uF
EC2SA06N		±5 VDC	±200 mA		482 mA	83	470uF
EC2SA11N	12 VDC	5 VDC	400 mA	40 mA	203 mA	82	470uF
EC2SA12N		12 VDC	167 mA		201 mA	83	470uF
EC2SA13N		15 VDC	134 mA		199 mA	84	470uF
EC2SA14N		±12 VDC	±83 mA		202 mA	82	470uF
EC2SA15N		±15 VDC	±67 mA		199 mA	84	470uF
EC2SA16N		±5 VDC	±200 mA		203 mA	82	470uF
EC2SA21N	24 VDC	5 VDC	400 mA	20 mA	105 mA	79	470uF
EC2SA22N		12 VDC	167 mA		103 mA	81	470uF
EC2SA23N		15 VDC	134 mA		102 mA	82	470uF
EC2SA24N		±12 VDC	±83 mA		102 mA	81	470uF
EC2SA25N		±15 VDC	±67 mA		102 mA	82	470uF
EC2SA26N		±5 VDC	±200 mA		105 mA	79	470uF

NOTE: 1. Nominal Input Voltage 5, 12, 24VDC

## Specifications

### INPUT SPECIFICATIONS:

Input Voltage Range.....	±10%
Input Surge Voltage (100ms max.).....	5V..... 9Vdc max.
	12V..... 18Vdc max.
	24V..... 30Vdc max.
Input Filter .....	Capacitive

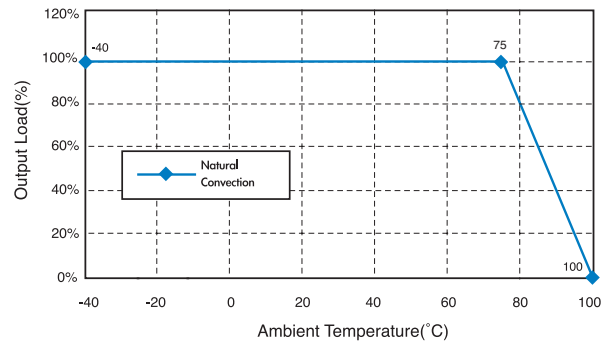
### OUTPUT SPECIFICATIONS:

Voltage Accuracy .....	±3.0% max.
Voltage Balance(Dual) .....	±1.0% max.
Ripple & Noise, 20MHz BW.....	150mV pk-pk, max.
Single output, 5V.....	100mV pk-pk, max.
Temperature Coefficient.....	±0.05%/°C
Short Circuit Protection.....	Momentary 1sec. max.
Line Regulation <sup>1</sup> .....	±1.2% max.
Load Regulation <sup>2</sup> .....	±10% max.

### GENERAL SPECIFICATIONS:

Efficiency.....	See Table
Isolation Voltage.....	1000 VDC min.
Isolation Resistance .....	10 <sup>9</sup> ohm min.
Isolation Capacitance.....	15 pF typ.
Switching Frequency .....	80KHz typ.
Operating Ambient Temperature Range.....	-40°C to +85°C
De-rating, Above 75°C .....	Linearly to Zero power at 100°C
Case temperature <sup>4</sup> .....	+100°C max.
Cooling .....	Natural Convection
Storage Temperature Range .....	-55°C to +125°C
Humidity.....	95% RH max. Non condensing
MTBF.....	MIL-STD-217F,GB.....3300Khrs min.
Dimensions .....	0.77x0.28x0.40 inches(19.6x7.2x10.2 mm)
Case Material.....	Non-conductive black plastic
Weight.....	2.7g

## EC2SAN Series Derating Curve



### NOTE:

1. Line regulation is per 1.0% change in input voltage.
2. Load regulation is for load change from 100% to 20%.
3. The output noise is measured with 0.33µF ceramic capacitor.
4. Maximum case temperature under any operating condition should not be exceeded 100°C.
5. The EC2SA2XN Input Terminal Need to Parallel With 10µF Ceramic Capacitor.

### PIN CONNECTION

Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

## CASE SIP-7

All Dimensions In Inches(mm)		
Tolerance	Inches	Millimeters
	X.XX ±0.01	X.X ±0.25
	X.XXX ±0.005	X.XX ±0.13
Pin	±0.002	±0.05

