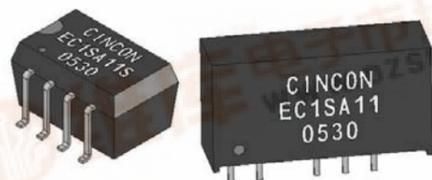


# EC1SA

NEW

PRELIMINARY



## 1 WATT DC-DC CONVERTERS

### Features

- Industry Standard SIP and SMD Packages
- Efficiency up to 82%
- 1000VDC Isolation
- Low Cost
- Unregulated Outputs
- Low Ripple and Noise

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT NO LOAD | INPUT CURRENT FULL LOAD | %EFF | CASE      |
|--------------|---------------|----------------|----------------|-----------------------|-------------------------|------|-----------|
| EC1SA01N     | 5 VDC         | 5 VDC          | 200 mA         | 30 mA                 | 250mA                   | 80   | Miniature |
| EC1SA02N     | 5 VDC         | 12 VDC         | 84 mA          | 30 mA                 | 252mA                   | 80   | Miniature |
| EC1SA03N     | 5 VDC         | 15 VDC         | 67 mA          | 30 mA                 | 248mA                   | 81   | Miniature |
| EC1SA04N     | 5 VDC         | ±12 VDC        | 42 mA          | 30 mA                 | 255mA                   | 79   | Miniature |
| EC1SA05N     | 5 VDC         | ±15 VDC        | 33 mA          | 30 mA                 | 251mA                   | 79   | Miniature |
| EC1SA06N     | 5 VDC         | ±5 VDC         | 100 mA         | 30 mA                 | 267mA                   | 75   | Miniature |
| EC1SA11N     | 12 VDC        | 5 VDC          | 200 mA         | 15 mA                 | 103mA                   | 81   | Miniature |
| EC1SA12N     | 12 VDC        | 12 VDC         | 84 mA          | 15 mA                 | 104mA                   | 81   | Miniature |
| EC1SA13N     | 12 VDC        | 15 VDC         | 67 mA          | 15 mA                 | 102mA                   | 82   | Miniature |
| EC1SA14N     | 12 VDC        | ±12 VDC        | 42 mA          | 15 mA                 | 105mA                   | 80   | Miniature |
| EC1SA15N     | 12 VDC        | ±15 VDC        | 33 mA          | 15 mA                 | 103mA                   | 80   | Miniature |
| EC1SA16N     | 12 VDC        | ±5 VDC         | 100 mA         | 15 mA                 | 111mA                   | 75   | Miniature |

NOTE: 1. Nominal Input Voltage 5 or 12 VDC

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage Range.....±10%  
Input Filter.....Capacitive

#### OUTPUT SPECIFICATIONS:

Voltage Accuracy.....± 3.0% max.  
Ripple and Noise, 20MHz BW...SIP Models.....75mV p-p max.  
SMD Models.....120mV p-p max.  
Temperature Coefficient.....± 0.02% / °C max.  
Short Circuit Protection.....Momentary 1sec. max.  
Line Regulation<sup>1</sup>.....± 1.2% max.  
Load Regulation<sup>2</sup>.....± 10% max.

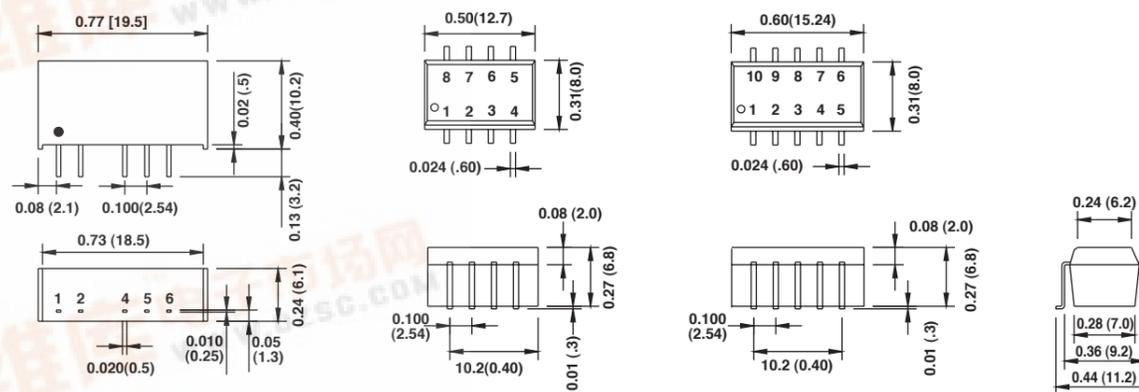
#### GENERAL SPECIFICATIONS:

Efficiency.....See Table  
Isolation Voltage.....1000 VDC min.  
Isolation Resistance.....10<sup>9</sup> ohms min.  
Switching Frequency.....100KHz, typ.  
Operating Ambient Temperature Range.....-40°C to + 85°C  
Case Temperature.....+95°C max.  
Cooling.....Free-Air Convection  
Storage Temperature Range.....-55°C to + 125°C  
Dimensions :  
SIP Models.....0.77 x 0.24 x 0.40inches(19.5 x 6.1 x 10.2mm)  
SMD Models(Single).....0.5 x 0.31 x 0.27inches(12.7 x 8.0 x 6.8mm)  
SMD Models(Dual).....0.6 x 0.31 x 0.27inches(15.24 x 8.0 x 6.8mm)  
Case Material.....SIP Models.....Non-conductive black plastic  
SMD Models.....Epoxy molding compound  
Weight.....1.8g

#### NOTE:

1. Line regulation is per 1.0% change in input voltage
2. Load regulation is for load change from 100% to 20%
3. Suffix "S" to the model number with SMD packages

### CASE Miniature



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

| PIN CONNECTION |               |
|----------------|---------------|
| Pin            | Single Output |
| 1              | -Vin          |
| 2              | +Vin          |
| 3              | NA            |
| 4              | -Vout         |
| 5              | +Vout         |
| 6              | NA            |
| 7              | NA            |
| 8              | NA            |

| PIN CONNECTION |             |
|----------------|-------------|
| Pin            | Dual Output |
| 1              | -Vin        |
| 2              | +Vin        |
| 3              | NA          |
| 4              | Common      |
| 5              | -Vout       |
| 6              | NA          |
| 7              | +Vout       |
| 8              | NA          |
| 9              | NA          |
| 10             | NA          |