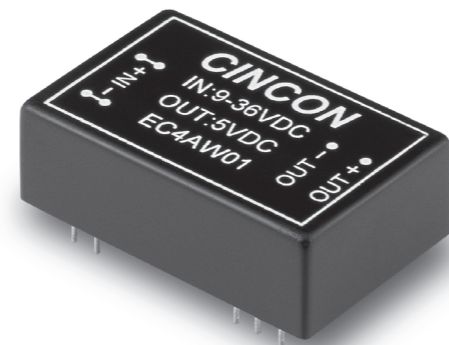


# EC4AW

S E R I E S

## 5-6 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



### Features

- 5-6W Isolated Output
- 4 : 1 Input Range
- DIP-24 / SMD Package
- Regulated Outputs
- Efficiency to 80%
- Pi Input Filter
- Continuous Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC4AW01	9-36VDC	5 VDC	1000 mA	15 mA	267 mA	78	DIP-24
EC4AW02		12 VDC	470 mA	15 mA	294 mA	80	
EC4AW03		15 VDC	400 mA	15 mA	313 mA	80	
EC4AW04		±12 VDC	±230 mA	25 mA	288 mA	80	
EC4AW05		±15 VDC	±190 mA	25 mA	297 mA	80	
EC4AW06		±5 VDC	±500 mA	25 mA	267 mA	78	
EC4AW07		3.3 VDC	1000 mA	15 mA	191 mA	72	
EC4AW11	18-72VDC	5 VDC	1000 mA	7.5 mA	134 mA	78	DIP-24
EC4AW12		12 VDC	470 mA	7.5 mA	149 mA	79	
EC4AW13		15 VDC	400 mA	7.5 mA	157 mA	80	
EC4AW14		±12 VDC	±230 mA	12 mA	146 mA	79	
EC4AW15		±15 VDC	±190 mA	12 mA	149 mA	80	
EC4AW16		±5 VDC	±500 mA	12 mA	135 mA	77	
EC4AW17		3.3 VDC	1000 mA	7.5 mA	100 mA	70	

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

### Specifications

**INPUT SPECIFICATIONS:**  
 Input Voltage Range.....24V.....9-36V  
 48V.....18-72V  
 Input Filter.....Pi Type

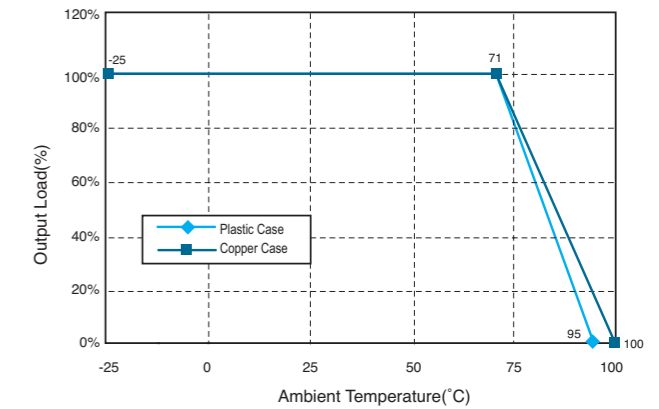
**OUTPUT SPECIFICATIONS:**  
 Voltage Accuracy.....±2.0% max.  
 Voltage Balance (Dual).....±1.0% max.  
 Temperature Coefficient.....±0.05%/°C  
 Ripple and Noise, 20MHz BW.....3.3V/5V.....100mV p-p max.  
 12V/15V.....1% p-p max.  
 Short Circuit Protection.....Continuous  
 Line Regulation, Single/Dual<sup>1</sup>.....± 0.5% max.  
 Load Regulation, Single<sup>2</sup>.....± 0.5% max.  
 Dual<sup>3</sup>.....± 1.0% max.

**GENERAL SPECIFICATIONS:**  
 Efficiency.....See Table  
 Isolation Resistance.....10<sup>9</sup> Ohms  
 Switching Frequency.....200KHz, min  
 Operating Ambient Temperature Range .....-25°C to +71°C  
 De-rating, Above 71°C (Plastic Case).....Linearly to Zero power at 95°C  
 De-rating, Above 71°C (Copper Case).....Linearly to Zero power at 100°C  
 Case Temperature (Plastic case<sup>4</sup>) .....95°C max  
 (Copper case<sup>5</sup>) .....100°C max  
 Cooling .....Natural Convection  
 Storage Temperature Range.....-40°C to + 100°C  
 Dimensions.....DIP.....1.25 x 0.80 x 0.40 inches(31.8 x 20.3 x 10.2mm)  
 SMD.....1.25 x 0.80 x 0.45 inches(31.8 x 20.3 x 11.4mm)  
 Weight.....12.5g

**ISOLATION VOLTAGE:**  
 1.5K VDC min.....Standard or Suffix "HM" Models  
 3K VDC min<sup>6</sup>.....Suffix "H" Models

**CASE MATERIAL:**  
 Standard Models.....Non-Conductive Black Plastic  
 Suffix "HM" Models.....Black Coated Copper with Non-Conductive Base

### EC4AW Series Derating Curve



#### NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Measured From Full Load to 1/4 Load
4. Non-Conductive Black Plastic Only
5. Suffix "S" to the Model Number with SMD packages
6. Maximum case temperature under any operating condition should not exceed 95°C(PlasticCase), 100°C(Copper Case).

### PIN CONNECTION

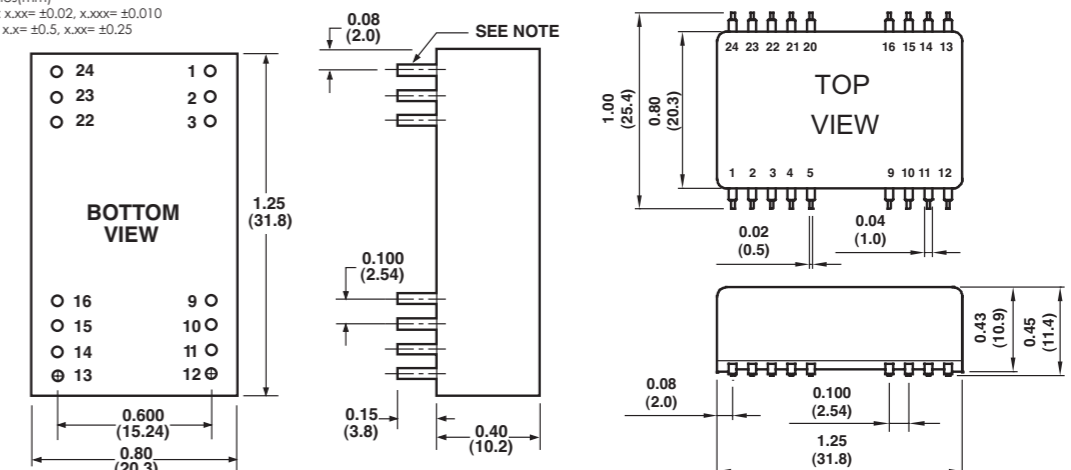
Pin	Single Output		Dual Output	
	DIP	SMD	DIP	SMD
1, 24	NP	NC	NP	NC
2, 3	-V Input		-V Input	
4, 5	NP	NC	NP	NC
9	NC		Common	
10, 15	NC		NC	
11	NC		-V Output	
12, 13	NP	NC	NP	NC
14	+V Output		+V Output	
16	-V Output NC		Common	
20, 21	NP	NC	NP	NC
22, 23	+V Input		+V Input	

\*NP-NO PIN

\*NC-NO CONNECTION WITH PIN

### CASE A

NOTE: Pin Size is 0.02" Inch (0.5mm) DIA  
 All Dimensions In Inches(mm)  
 Tolerance Inches: x.xx=±0.02, x.xxx=±0.010  
 Millimeters: x.x=±0.5, x.xx=±0.25



All Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted.