



EC4AW SERIES

5-6 WATT 4:1 INPUT RANGE

DC-DC CONVERTERS



FEATURES

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



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

NOTE: 1. Nominal Input Voltage: 24 or 48 VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range 24V 9-36V
 48V 18-72V
 Input Filter Pi Type

OUTPUT SPECIFICATIONS:

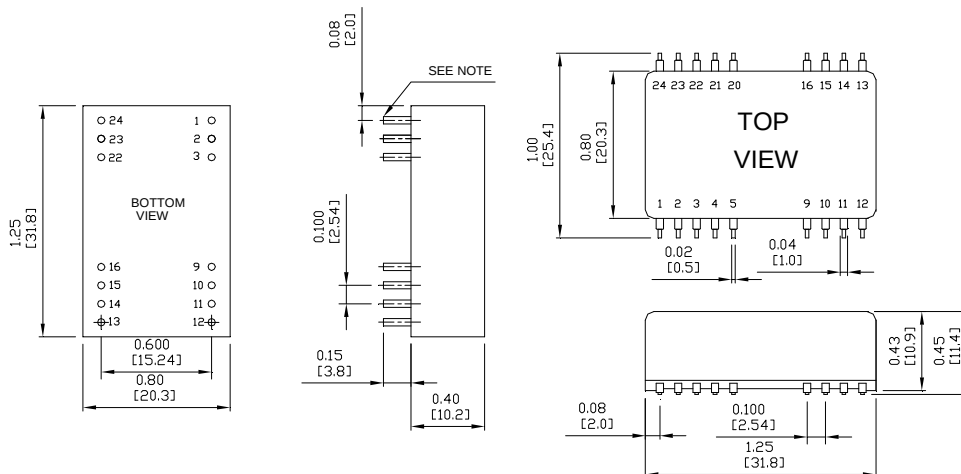
Voltage Accuracy $\pm 2.0\%$ max.
 Voltage Balance (Dual) $\pm 1.0\%$ max.
 Temperature Coefficient $\pm 0.05\%/^{\circ}\text{C}$
 Ripple & Noise, 20MHz BW 3.3V/5V 100mV pk-pk max.
 12V/15V 1% pk-pk max.
 Short Circuit Protection Continuous
 Line Regulation Single/Dual (note 1) $\pm 0.5\%$ max.
 Load Regulation Single (note 2) $\pm 0.5\%$ max.
 Dual (note 3) $\pm 1.0\%$ max.

GENERAL SPECIFICATIONS:

Efficiency See Table
 Isolation Resistance 10^9 ohm min.
 Switching Frequency 200KHz min.
 Operating Ambient Temperature Range -25°C to $+71^{\circ}\text{C}$
 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 note 6) 95°C max.
 (Copper case note 6) 100°C max.
 Cooling Natural Convection
 Storage Temperature Range -40°C to $+100^{\circ}\text{C}$
 Dimensions DIP 1.25x0.80x0.40 inches(31.8x20.3x10.2 mm)
 SMD 1.25x0.80x0.45 inches(31.8x20.3x11.4 mm)
 Weight 12.5g

Case A Dimensions:

NOTE: Pin Size is 0.02 ± 0.002 Inch (0.5 ± 0.05 mm) DIA
 All Dimensions In Inches (mm)
 Tolerances Inches: X.XX= ± 0.02 , X.XXX= ± 0.010
 Millimeters: X.X= ± 0.5 , X.XX= ± 0.25



CASE AS

ISOLATION VOLTAGE:

1.5K VDC min. Standard or Suffix "HM" Models
 3K VDC min. (note4) Suffix "H" Models

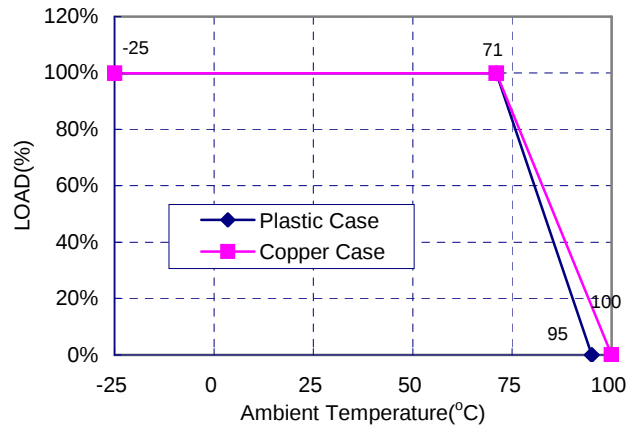
CASE MATERIAL:

Standard Models Non-Conductive Black Plastic
 Suffix "HM" Models (note 5) Black Coated Copper with Non-conductive Base

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 be exceeded 95°C (Plastic Case), 100°C (Copper Case).

Typical Derating curve for Natural Convection



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		Common	
20,21	NP	NC	NP	NC
22,23	+V Input		+V Input	

* NC-NO CONNECTION WITH PIN
 * NP-NO PIN