EC3AW SERIES

3 WATT 4:1 INPUT RANGE DC-DC CONVERTERS

FEATURES

* 3W Isolated Output
* DIP-24/SMD Package
* Efficiency to 77%
* 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		
EC3AW01	9-36 VDC	5 VDC	600 mA	15 mA	174 mA	72	DIP-24
EC3AW02	9-36 VDC	12 VDC	250 mA	15 mA	165 mA	76	DIP-24
EC3AW03	9-36 VDC	15 VDC	200 mA	15 mA	165 mA	76	DIP-24
EC3AW04	9-36 VDC	±5 VDC	±300 mA	25 mA	179 mA	70	DIP-24
EC3AW05	9-36 VDC	±12 VDC	±125 mA	25 mA	174 mA	72	DIP-24
EC3AW06	9-36 VDC	±15 VDC	±100 mA	25 mA	174 mA	72	DIP-24
EC3AW07	9-36 VDC	3.3 VDC	600 mA	15 mA	117 mA	70	DIP-24
EC3AW11	18-72 VDC	5 VDC	600 mA	7.5 mA	87 mA	72	DIP-24
EC3AW12	18-72 VDC	12 VDC	250 mA	7.5 mA	81 mA	77	DIP-24
EC3AW13	18-72 VDC	15 VDC	200 mA	7.5 mA	81 mA	77	DIP-24
EC3AW14	18-72 VDC	±5 VDC	±300 mA	12 mA	88 mA	71	DIP-24
EC3AW15	18-72 VDC	±12 VDC	±125 mA	12 mA	87 mA	72	DIP-24
EC3AW16	18-72 VDC	±15 VDC	±100 mA	12 mA	87 mA	72	DIP-24
EC3AW17	18-72 VDC	3.3 VDC	600 mA	7.5 mA	58 mA	70	DIP-24

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

SPECIFICATIONS

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

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%/℃
Ripple & Noise, 20MHz BW Single & ±5V ..... 100mV pk-pk max.
Dual ..... 1% pk-pk max.
Short Circuit Protection ..... Continuous
Line Regulation Single/Dual (note1) .....±0.5% max.
Load Regulation Single (note2) ..... ±0.5% max.
Dual (note3) .....±1.0% max.

GENERAL SPECIFICATIONS:

Efficiency ..... See Table
Isolation Resistance ..... 10^9 ohm min.
Switching Frequency ..... 100KHz min.
Operating Ambient Temperature Range ..... -25℃ to +71℃
De-rating, Above 71℃ (Plastic Case) ..... Linearly to Zero power at 95℃
De-rating, Above 71℃ (Copper Case) ..... Linearly to Zero power at 100℃
Case Temperature (Plastic case note6) ..... 95℃ max.
(Copper case note6) ..... 100℃ max.
Cooling ..... Natural Convection
Storage Temperature Range ..... -40℃ to +100℃
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

ISOLATION VOLTAGE:

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

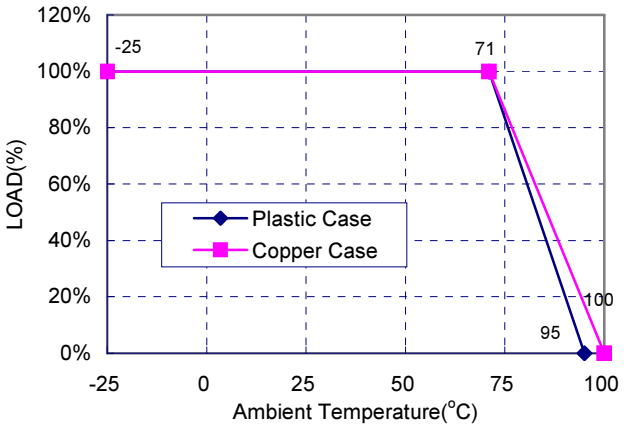
CASE MATERIAL:

Standard Models ..... Non-Conductive Black Plastic
Suffix "M" 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℃(Plastic Case), 100℃(Copper Case).

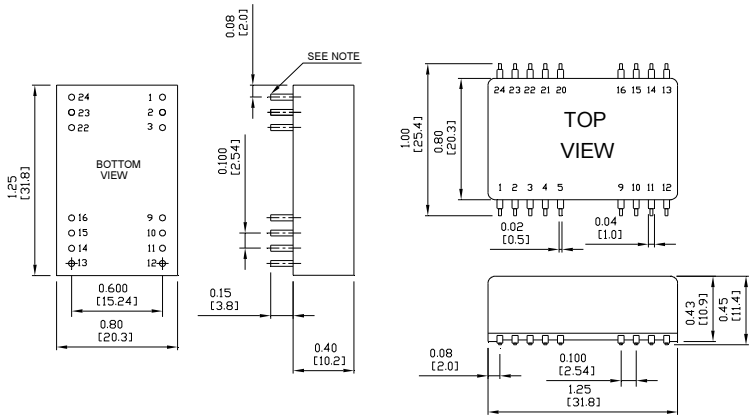
Typical Derating curve for Natural Convection



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



PIN CONNECTION									
500 VDC					1.5K & 3K VDC				
Pin	Single Output		Dual Output		Pin	Single Output		Dual Output	
	DIP	SMD	DIP	SMD		DIP	SMD	DIP	SMD
1,24	+V Input		+V Input		1,24	NP	NC	NP	NC
2,23	NC		-V Output		2,3	-V Input		-V Input	
3,22	NC		Common		4,5	NP	NC	NP	NC
4	NP	NC	NP	NC	9	NC		Common	
5	NP	NC	NP	NC	10,15	NC		NC	
9	NP	NC	NP	NC	11	NC		-V Output	
10,15	-V Output		Common		12,13	NP	NC	NP	NC
11,14	+V Output		+V Output		14	+V Output		+V Output	
12,13	-V Input		-V Input		16	-V Output		Common	
16	NP	NC	NP	NC	20,21	NP	NC	NP	NC
20,21	NP	NC	NP	NC	22,23	+V Input		+V Input	

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