



## EC4BW SERIES

### 10 WATT 4:1 INPUT RANGE

### DC-DC CONVERTERS



#### FEATURES

- \* 10W Isolated Output
- \* 2"x1" Six-Sided Shield Metal Case
- \* Efficiency to 82%
- \* 4:1 Input Range
- \* Pi Input Filter
- \* Continuous Short Circuit Protection
- \* Meets EN55022 Class A, Conducted



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
				NO LOAD	FULL LOAD		
EC4BW01	9-36 VDC	5 VDC	2000 mA	15 mA	534 mA	78	2000uF
EC4BW02	9-36 VDC	12 VDC	830 mA	15 mA	520 mA	80	830uF
EC4BW03	9-36 VDC	15 VDC	666 mA	15 mA	520 mA	80	666uF
EC4BW04	9-36 VDC	±12 VDC	±415 mA	20 mA	520 mA	80	T.B.D.
EC4BW05	9-36 VDC	±15 VDC	±333 mA	20 mA	520 mA	80	T.B.D.
EC4BW06	9-36 VDC	±5 VDC	±1000 mA	20 mA	520 mA	80	T.B.D.
EC4BW07	9-36 VDC	3.3 VDC	2000 mA	15 mA	362 mA	76	2000uF
EC4BW11	18-72 VDC	5 VDC	2000 mA	10 mA	260 mA	80	2000uF
EC4BW12	18-72 VDC	12 VDC	830 mA	10 mA	257 mA	81	830uF
EC4BW13	18-72 VDC	15 VDC	666 mA	10 mA	257 mA	81	666uF
EC4BW14	18-72 VDC	±12 VDC	±415 mA	15 mA	257 mA	81	T.B.D.
EC4BW15	18-72 VDC	±15 VDC	±333 mA	15 mA	253 mA	82	T.B.D.
EC4BW16	18-72 VDC	±5 VDC	±1000 mA	15 mA	253 mA	82	T.B.D.
EC4BW17	18-72 VDC	3.3 VDC	2000 mA	10 mA	181 mA	76	2000uF

NOTE: 1. Nominal Input Voltage 24 or 48VDC

# 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 Surge Voltage (100ms max.)	24V	50Vdc max.
	48V	100Vdc max.
Input Filter		Pi Type

## OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
Voltage Balance Dual Output at Full Load	±1.0% max.
Transient Response	
Single 25% Step Load Change	<500us
Dual FL-1/2L±1% Error Band	<500us
Ripple and Noise, 20MHz BW	75mV pk-pk max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	Continuous
Line Regulation (note1)	±0.2% max.
Load Regulation (note2)	±1.0% max.
Start up time	24Vin 5ms typ.
	48Vin 10ms typ.

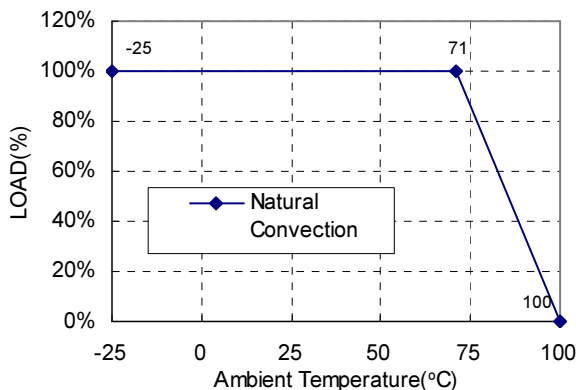
## GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	500 VDC
Isolation Resistance	10 <sup>9</sup> ohm min.
Isolation Capacitance	500pF typ.
Switching Frequency	300KHz typ.
Operating Ambient Temperature Range	-25°C to +71°C
De-rating, Above 71°C	Linearly to Zero power at 100°C
Case Temperature (note3)	100°C max.
Cooling	Natural Convection
Storage Temperature Range	-40°C to +100°C
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F, GB, 25°C, Full Load 750K hrs Typ.
EMI/RFI	Six sided Continuous Shield
Dimensions	2.00x1.00x0.40 inches (50.8x25.4x10.2 mm)
Case Material	Black Coated Copper with Non-Conductive Base
Weight	32g

## NOTE:

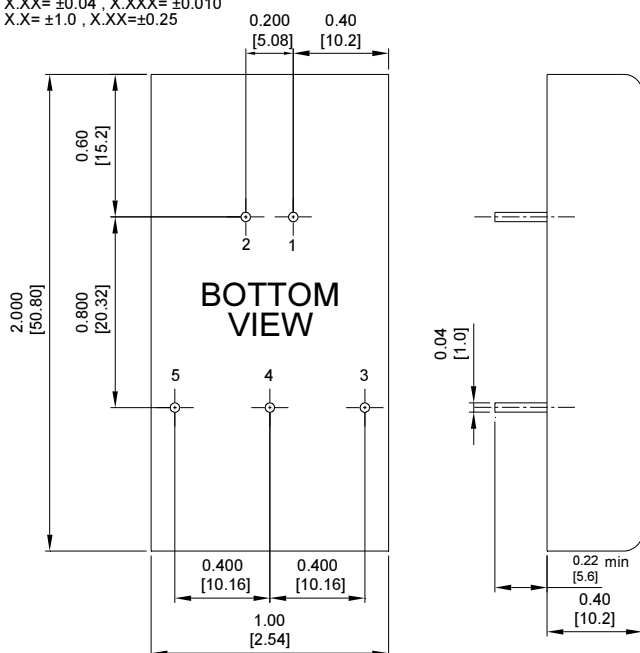
1. Measured from high line to low line.
2. Measured from full load to 1/4 load.
3. Maximum case temperature under any operating condition should not be exceeded 100°C.

Typical Derating curve for Natural Convection



## Case B Dimensions:

NOTE: Pin Size is 0.04±0.004 Inch (1.0±0.1 mm)DIA  
 All Dimensions In Inches (mm)  
 Tolerances Inches: X.XX= ±0.04 , X.XXX= ±0.010  
 Millimeters: X.X= ±1.0 , X.XX= ±0.25



PIN CONNECTION	
Pin	Function
1	+Input
2	-Input
3	+Output
4	Common/NP
5	-Output

\*NP-NO PIN ON SINGLE OUTPUT