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

Downloaded from Arrow.com.

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 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.

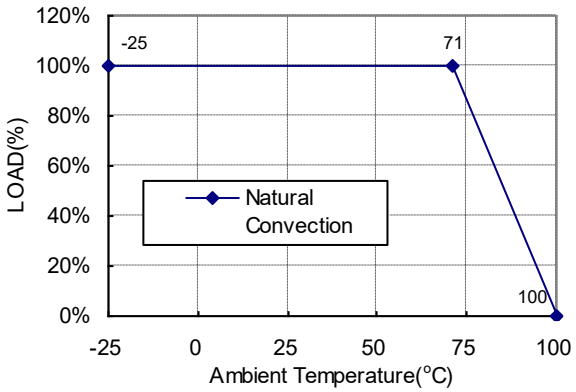
NOTE:

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℃.

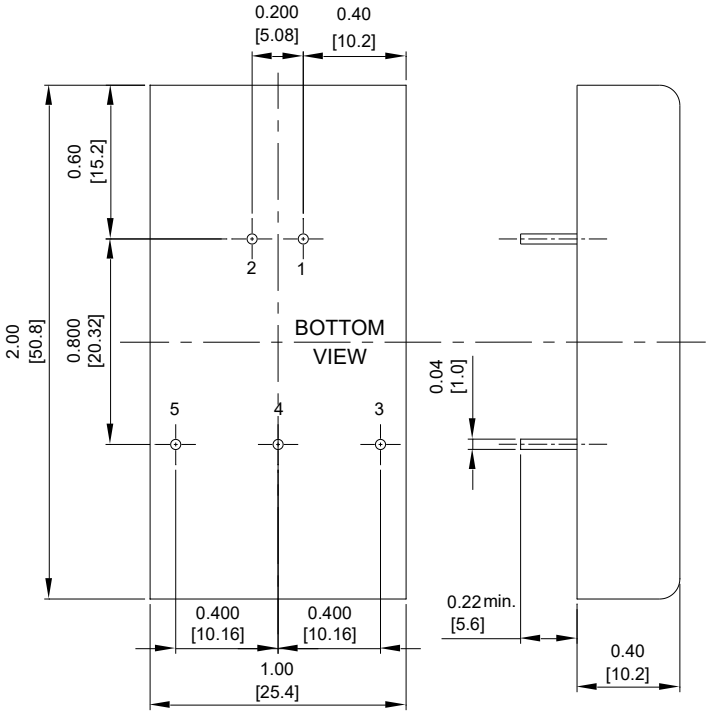
GENERAL SPECIFICATIONS:

Efficiency ..... See Table
Isolation Voltage ..... 500 VDC
Isolation Resistance ..... 10^9 ohm min.
Isolation Capacitance ..... 500pF typ.
Switching Frequency ..... 300KHz typ.
Operating Ambient Temperature Range ..... –25℃ to +71℃
De-rating, Above 71°C ..... Linearly to Zero power at 100°C
Case Temperature (note3) ..... 100℃ max.
Cooling ..... Natural Convection
Storage Temperature Range ..... –40℃ to +100℃
Humidity ..... 95% RH max. Non condensing
MTBF ..... MIL-STD-217F, GB, 25℃, 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

Typical Derating curve for Natural Convection



Case B Dimensions:



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

*NP-NO PIN ON SINGLE OUTPUT

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

Downloaded from Arrow.com.