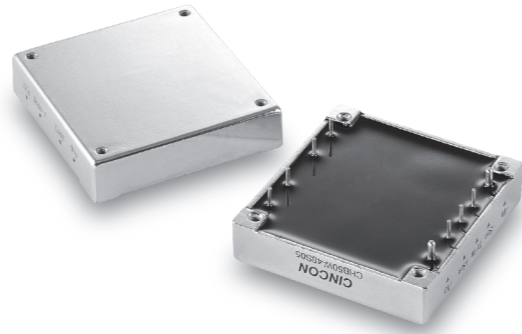


# CHB50W

S E R I E S



## 25-50 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



### Features

- 25-50W Isolated Output
- Half Brick Package
- 4 : 1 Input Range
- Regulated Outputs
- Efficiency to 84%
- 300KHz Switching Frequency
- Five-Sided Shield Metal Case
- Continuous Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE	
				NO LOAD	FULL LOAD			
CHB50W-24S33	9-36 VDC	3.3 VDC	10 A		1785 mA	77	Half-Brick	
CHB50W-24S05		5 VDC	10 A		2570 mA	81		
CHB50W-24S12		12 VDC	4.16 A	50 mA	2510 mA	83		
CHB50W-24S15		15 VDC	3.33 A		2510 mA	83		
CHB50W-24S24		24 VDC	2.08 A		2510 mA	83		
CHB50W-48S33	18-75 VDC	3.3 VDC	10 A		880 mA	78	Half-Brick	
CHB50W-48S05		5 VDC	10 A		1270 mA	82		
CHB50W-48S12		12 VDC	4.16 A	50 mA	1240 mA	84		
CHB50W-48S15		15 VDC	3.33 A		1240 mA	84		
CHB50W-48S24			24 VDC	2.08 A		1240 mA		84

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage Range.....24V.....9-36V  
 48V.....18-75V  
 Undervoltage lockout .....24Vin power up.....8.8V  
 power down .....8V  
 48Vin power up.....17V  
 power down .....16V  
 Positive Logic Remote ON/OFF<sup>3,4</sup>  
 Input Filter ..... PI Type

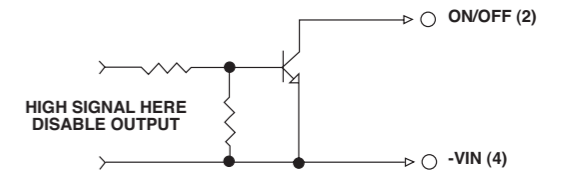
#### OUTPUT SPECIFICATIONS:

Voltage Accuracy : .....±1% max.  
 Transient Response :25% Step Load Change.....<500µ sec.  
 External Trim Adj. Range .....±10%  
 Ripple & Noise, 20MHz BW, 3.3V & 5V.....40mV RMS., max.  
 100mV pk-pk, max.  
 12V & 15V.....60mV RMS., max.  
 150mV pk-pk, max.  
 24V.....100mV RMS., max.  
 240mV pk-pk, max.  
 Temperature Coefficient..... ±0.03%/°C  
 Short Circuit Protection..... Continuous  
 Line Regulation<sup>1</sup> .....±0.2% max.  
 Load Regulation<sup>2</sup> .....±0.2% max.  
 Over Voltage Protection trip Range, % Vo nom.....115-140%  
 Current Limit .....110% ~160% Nominal Output

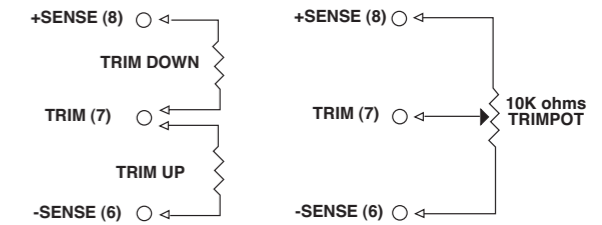
#### GENERAL SPECIFICATIONS:

Efficiency.....See Table  
 Isolation Voltage .....Input/Output.....1500VDC min.  
 Input/Case.....1500VDC min.  
 Output/Case.....1500VDC min.  
 Isolation Resistance .....10<sup>7</sup> ohm min.  
 Switching Frequency .....300KHz, Typ.  
 Operating Case Temperature .....-40°C to 100°C  
 Storage Temperature .....-55°C to +105°C  
 Thermal Shutdown, Case Temp. ....100°C Typ.  
 Dimensions .....2.28x2.40x0.50 inches  
 (57.9x61.0x12.7 mm)  
 Case Material.....Aluminum  
 Weight.....94g

### Remote On/Off Control



### External Output Trim



### PIN CONNECTION

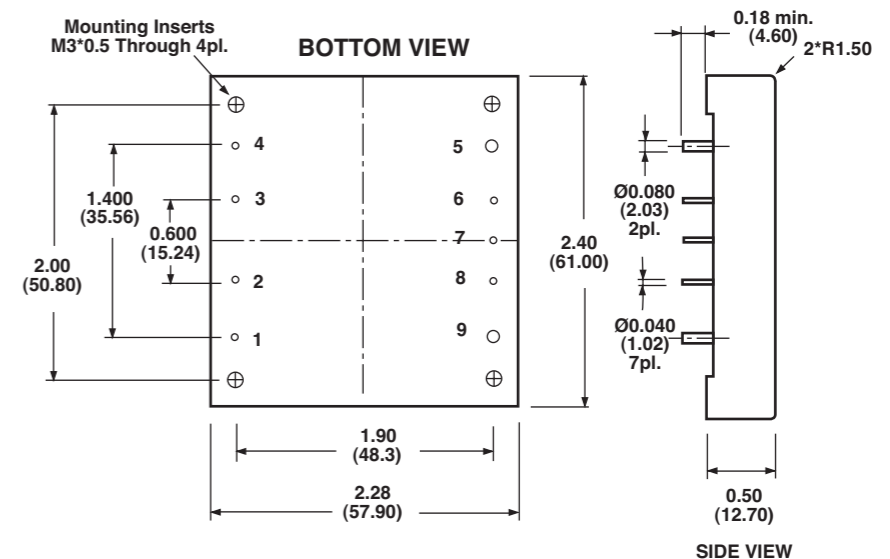
Pin	Function
1	+V Input
2	ON/OFF
3	CASE
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+Vout

#### NOTE:

1. Measured From High Line to Low Line.
2. Measured From Full Load to Zero Load.
3. Logic Compatibility .... Open Collector ref. to -Input.  
 Module ON .....Open Circuit  
 Module OFF .....<0.8Vdc
4. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF.

### CASE HB

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.