

CHB50

25 TO 50 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT



Features

- 25W/50W Isolated Output
- Efficiency to 85%
- 300KHz Switching Frequency
- 2 : 1 Input Range
- Regulated Outputs
- Continuous Short Circuit Protection
- Five-Sided Metal Case
- Industry Standard Half-Brick Package

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT NO LOAD	INPUT CURRENT FULL LOAD	%EFF	CASE
CHB50-12S25	9-18 VDC	2.5 VDC	10A	50 mA	2740 mA	76	HB
CHB50-12S33		3.3 VDC	10A		3525 mA	78	
CHB50-12S05		5 VDC	10A		5145 mA	81	
CHB50-12S12		12 VDC	4.16A		4950 mA	84	
CHB50-12S15		15 VDC	3.33A		4950 mA	84	
CHB50-12S24	18-36 VDC	24 VDC	2.08A	50 mA	4950 mA	84	HB
CHB50-24S25		2.5 VDC	10A		1353 mA	77	
CHB50-24S33		3.3 VDC	10A		1740 mA	79	
CHB50-24S05		5 VDC	10A		2540 mA	82	
CHB50-24S12		12 VDC	4.16A		2450 mA	85	
CHB50-24S15	36-75 VDC	15 VDC	3.33A	50 mA	2450 mA	85	HB
CHB50-24S24		24 VDC	2.08A		2419 mA	86	
CHB50-48S25		2.5 VDC	10A		676 mA	77	
CHB50-48S33		3.3 VDC	10A		870 mA	79	
CHB50-48S05	36-75 VDC	5 VDC	10A	50 mA	1250 mA	83	HB
CHB50-48S12		12 VDC	4.16A		1220 mA	85	
CHB50-48S15		15 VDC	3.33A		1220 mA	85	
CHB50-48S24		24 VDC	2.08A		1209 mA	86	

NOTE : 1. Nominal Input Voltage 12, 24 & 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....	12V.....9-18V
	24V.....18-36V
	48V.....36-75V
Undervoltage lockout	12Vin power up8.8V
	power down8V
	24Vin power up17V
	power down16V
	48Vin power up34V
	power down32.5V
Positive Logic Remote ON/OFF ^{3,4}	
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, 2.5V & 3.3V & 5V	20mV RMS., max.
	75mV pk-pk, max.
12V & 15V	30mV RMS., max.
	100mV pk-pk, max.
24V	100mV RMS., max.
	240mV pk-pk, max.
Temperature Coefficient.....	±0.03%/°C
Short Circuit Protection.....	Continuous
Line Regulation ¹	±0.2% max.
Load Regulation ²	±0.2% max.
Over Voltage Protection trip Range, % Vo nom.....	115-140%
Current Limit	110% ~150% Nominal Output

GENERAL SPECIFICATIONS:

Efficiency.....	See Table
Isolation Voltage	Input/Output.....1500VDC min.
	Input/Case.....1500VDC min.
	Output/Case.....1500VDC min.
Isolation Resistance	10 ⁷ ohm min.
Switching Frequency	(12/24)Vin.....400KHz, Typ.
	48Vin.....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.....	.88g

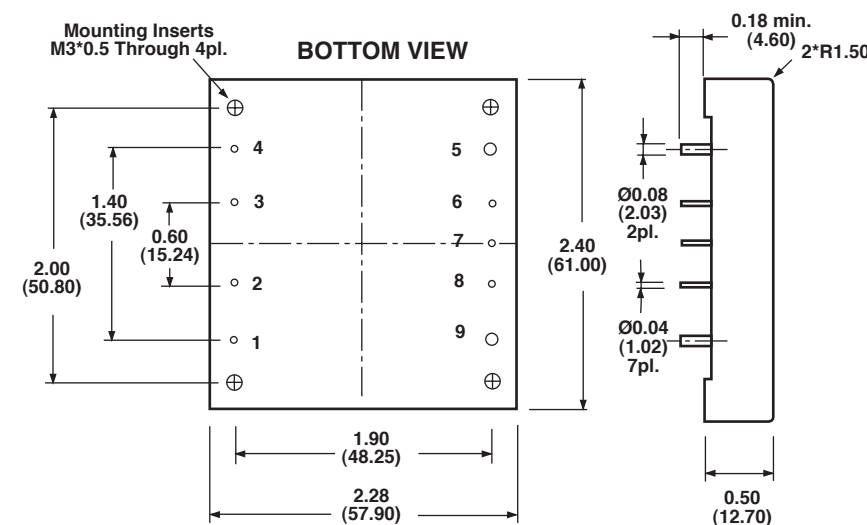
NOTE:

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 ONOpen 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)

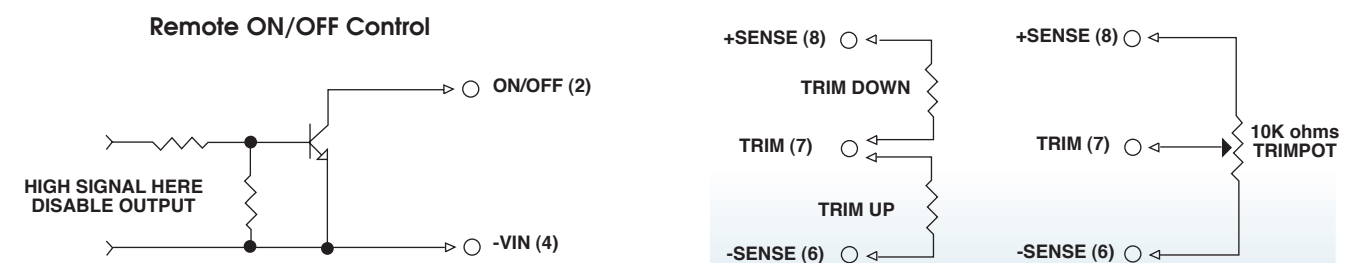
Tolerances	Inches	.XX±.02	.XXX±.01	Pin ±0.02
	Millimeters	.X±.5	.XX±.25	±0.5



PIN CONNECTION

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

External Output Trim



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