

CHB50

S E R I E S

25-50 WATT 1/2 BRICK DC-DC CONVERTERS



Features

- 25-50W Isolated Output
- Half Brick Package
- Regulated Outputs
- Efficiency to 86%
- 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		
CHB50-12S25	9-18 VDC	2.5 VDC	10A	50 mA	2740 mA	76	Half-Brick
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		24 VDC	2.08A		4950 mA	84	
CHB50-24S25	18-36 VDC	2.5 VDC	10A	50 mA	1353 mA	77	Half-Brick
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		15 VDC	3.33A		2450 mA	85	
CHB50-24S24		24 VDC	2.08A		2419 mA	86	
CHB50-48S25	36-75 VDC	2.5 VDC	10A	50 mA	676 mA	77	Half-Brick
CHB50-48S33		3.3 VDC	10A		870 mA	79	
CHB50-48S05		5 VDC	10A		1250 mA	83	
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 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....	12V.....9-18V	24V.....18-36V	48V.....36-75V
Undervoltage lockout	12Vin power up.....8.8V	power down8V	24Vin power up.....17V
	power down16V	48Vin power up34V	power down32.5V
Positive Logic Remote ON/OFF ^{3,4}	PI Type		
Input Filter	PI Type		

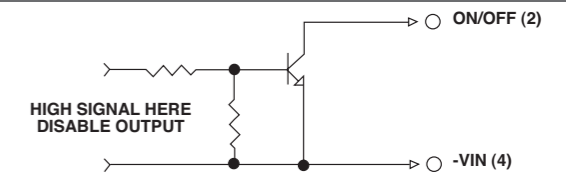
OUTPUT SPECIFICATIONS:

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

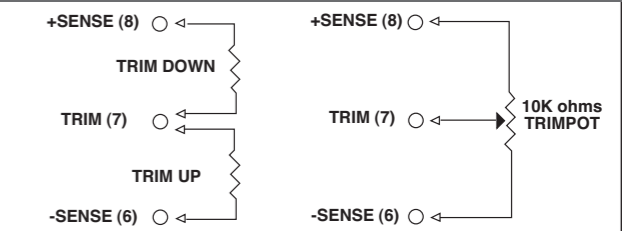
GENERAL SPECIFICATIONS:

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.....	0.88g

Remote On/Off Control



External Output Trim



PIN CONNECTION

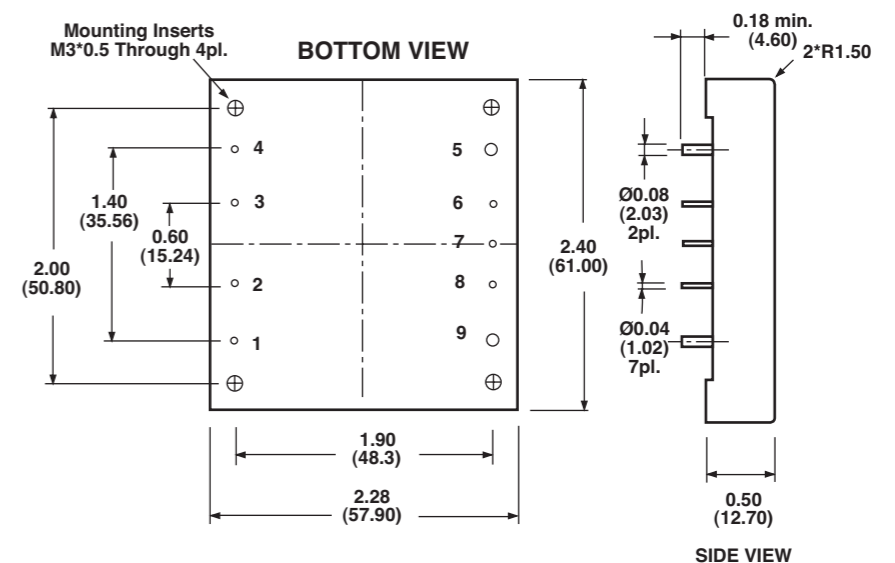
Pin	Function
1	+V Input
2	ON/OFF
3	CASE
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+Vout

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 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)
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.