



CHB150 SERIES

99 - 150 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT



E176177

FEATURES

- * 99 - 150W Isolated Output
- * Efficiency to 89%
- * 500KHz Switching Frequency
- * 2:1 Input Range
- * Regulated Outputs
- * Continuous Short Circuit Protection
- * Five-Sided Metal Case
- * Half-Brick Size Meets Industrial Standard
- * UL60950-1 Approval
- * Without Tantalum Capacitor Inside
(Except 3.3&5Vout)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB150-48S33	36-75 VDC	3.3 VDC	0 mA	30 A	25 mA	2.5 A	82	30000uF
CHB150-48S05	36-75 VDC	5 VDC	0 mA	30 A	25 mA	3.6 A	86	30000uF
CHB150-48S12	36-75 VDC	12 VDC	0 mA	12.5 A	25 mA	3.5 A	89	12500uF
CHB150-48S15	36-75 VDC	15 VDC	0 mA	10 A	25 mA	3.5 A	89	10000uF
CHB150-48S24	36-75 VDC	24 VDC	0 mA	6.25 A	25 mA	3.5 A	89	6250uF

NOTE: 1. Nominal Input Voltage 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range 48V..... 36-75V
 Input Surge Voltage (100ms max.) 48V 100Vdc max.
 Under Voltage Lockout 48Vin Power Up 34V
 48Vin Power Down 32.5V
 Positive Logic Remote ON/OFF (note3&4)
 Input Filter Pi Type

GENERAL SPECIFICATIONS:

Efficiency See Table
 Isolation Voltage Input/Output 1500VDC min.
 Input/Case, Output/Case 1500VDC min.
 Isolation Resistance 10⁷ ohm min.
 Isolation Capacitance 1000pF typ.
 Switching Frequency 500KHz typ.

OUTPUT SPECIFICATIONS:

Voltage Accuracy ±1.0% max.
 Transient Response: 25% Step Load Change <500µs.
 External Trim Adj. Range ±10%
 Ripple & Noise, 20MHz BW(note5)
 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.

Operating Case Temperature -40°C to 100°C
 Storage Temperature -40°C to +105°C
 Humidity 95% RH max. Non condensing
 MTBF MIL-HDBK-217F. GB. 25°C. Full Load 900Khrs typ.
 Thermal Shutdown Case Temperature 100°C typ.
 Dimensions 2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)
 Case Material Aluminum
 Weight 100g

NOTE:

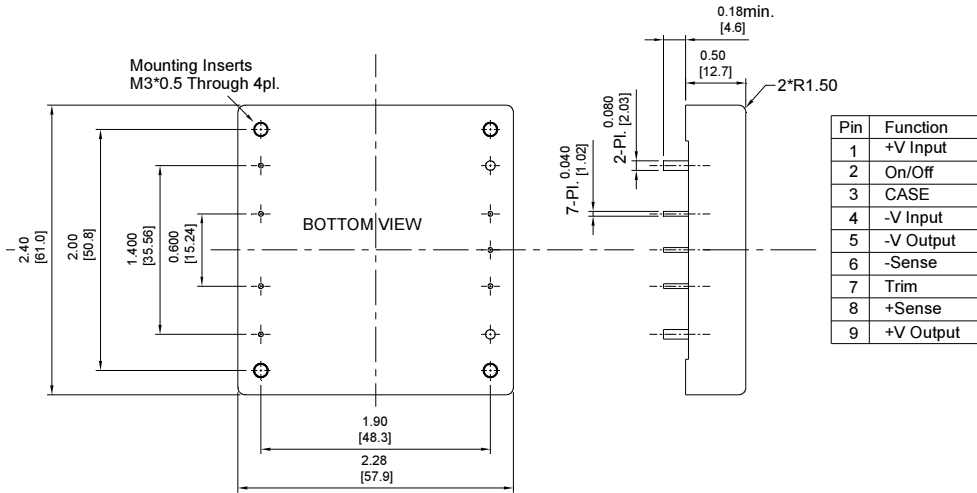
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Logic compatibility open collector ref to -Input
 Module on open circuit
 Module off 0 to < 0.8VDC
4. Suffix "N" to the model number with negative logic remote on/off.
5. Output ripple and noise measured with 10uF tantalum and 1uF ceramic capacitor across output.
6. Suffix "-C" to the model number with clear mounting insert. (3.2mm DIA.)

Temperature Coefficient ±0.03%/°C max.
 Short Circuit Protection Continuous
 Line Regulation (note1) ±0.2% max.
 Load Regulation (note2) ±0.2% max.
 Over Voltage Protection Trip Range, % Vo Nom. 115-140%
 Current Limit 110%-140% Nominal Output
 Start up time 5ms typ.

CASE HB

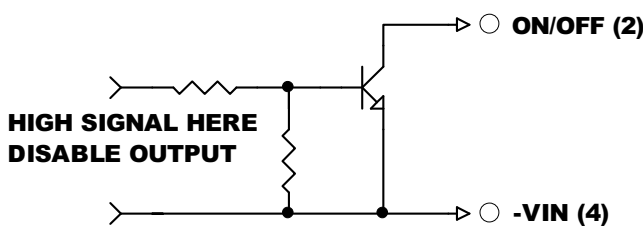
All Dimensions In Inches(mm)

Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
 Millimeters: X.X= ±0.5 , X.XX=±0.25



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

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

