

PART NUMBER: VHB200W

DESCRIPTION: half brick dc-dc converter

features

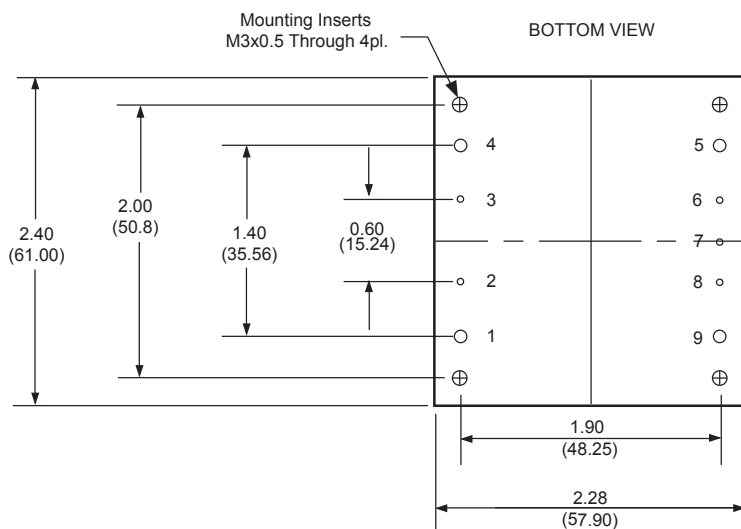
- 132 - 200 W isolated output
- efficiency to 89%
- fixed switching frequency
- monotonic start-up
- under-voltage, over-temp., over-voltage, over-current protected
- remote on/off
- industry standard half-brick package
- fully isolated 1500 V dc



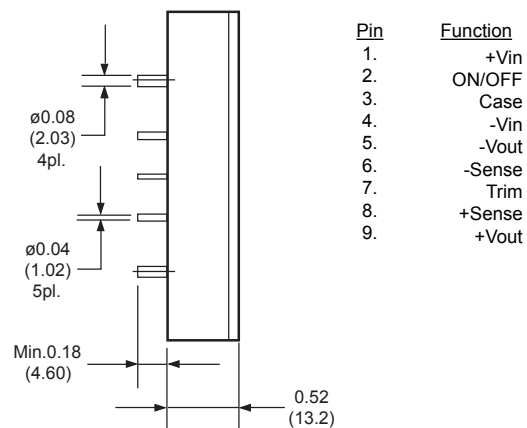
MODEL	input voltage (V dc)	output voltage (V dc)	output current		input current		efficiency %
			min.	max.	min.	max.	
VHB200W-Q48-S3R3	18~75	3.3	0 mA	40 A	80 mA	3125 mA	88
VHB200W-Q48-S5	18~75	5	0 mA	40 A	80 mA	4682 mA	89
VHB200W-Q48-S12	18~75	12	0 mA	16.7 A	60 mA	4744 mA	87
VHB200W-Q48-S15	18~75	15	0 mA	13.3 A	60 mA	4723 mA	87
VHB200W-Q48-S24	18~75	24	0 mA	8.3 A	60 mA	4716 mA	87

note: 1. nominal input voltage is 48 V dc

All Dimensions In Inches(mm)
Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.x= ±0.5, x.xx= ±0.25



Pin Connection



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INPUT

parameter	conditions/description	min	nom	max	units
input voltage		18	48	75	V dc
under voltage lockout	48 Vin power up		17		
	48 Vin power down		16		
positive logic remote On/Off ⁴ and ⁵					
input filter		PI Type			

OUTPUT

parameter	conditions/description	min	nom	max	units
voltage accuracy				±1.5%	
transient response	25% Step Load Change			500	µ/sec.
External Trim Adj. Range			±10%		
Ripple & Noise	20MHz BW 3.3V & 5V, 100mV pk-pk, max.			40	mV RMS
	20MHz BW 12V & 15V, 150mV pk-pk, max.			60	mV RMS
	20MHz BW 24V, 240mV pk-pk, max.			100	mV RMS
Temperature Coefficient			±0.03		%/°C
Short Circuit Protection			Continuous		
Line Regulation ¹				±0.2	%
Load Regulation ²				±0.2	%
Over Voltage Protection Trip Range, % Vo nom		115		140	%
Current Limit	Nominal Output	110		150	%

GENERAL SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
efficiency	see table				
isolation voltage	input/output	1500			V dc
	input/case	1500			V dc
	output/case	1500			V dc
isolation resistance			10 ⁷		Ω
switching frequency			250		KHz
operating case temperature		-40		100	°C
storage temperature		-55		105	°C
thermal shutdown, case temp			110		°C
dimensions	2.28 x 2.4 x 0.25 inches (57.9 x 61.0 x 13.2mm)				
case material	aluminum baseplate with plastic case				

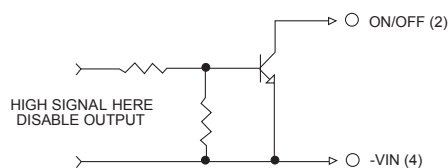
notes:

1. measured from high line to low line
2. measured from full load to zero load
3. output ripple and noise measured with 10 µF tantalum and 1 µF ceramic capacitor across output
4. logic compatibility: open collector ref to-input
module ON: >5.5 V dc to 75 V dc or open circuit
module OFF: <1.2 V dc
5. suffix "N" to the model number with negative logic remote ON/OFF
module ON: <1.2 V dc
module OFF: >5.5 V dc to 75 V dc or open circuit
6. trim-up: connect a resistor between the trim pin and +sense
trim-down: connect a resistor between the trim pin and -sense

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REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIMMING

