

HB50

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

Features:

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

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
HB50-12S25	9-18VDC	2.5VDC	10A	50 mA	2740 mA	76	HB
HB50-12S33		3.3 VDC	10A		3525 mA	78	
HB50-12S05		5 VDC	10A		5145 mA	81	
HB50-12S12		12 VDC	4.16A		4950 mA	84	
HB50-12S15		15 VDC	3.33A		4950 mA	84	
HB50-12S24		24VDC	2.08A		4950 mA	84	
HB50-24S25	18-36 VDC	2.5VDC	10A	50 mA	1353mA	77	HB
HB50-24S33		3.3 VDC	10A		1740mA	79	
HB50-24S05		5 VDC	10A		2540mA	82	
HB50-24S12		12 VDC	4.16A		2450mA	85	
HB50-24S15		15 VDC	3.33A		2450mA	85	
HB50-24S24		24VDC	2.08A		2419mA	86	
HB50-48S25	36-75 VDC	2.5VDC	10A	50mA	676mA	77	HB
HB50-48S33		3.3 VDC	10A		870mA	79	
HB50-48S05		5 VDC	10A		1250mA	83	
HB50-48S12		12 VDC	4.16A		1220mA	85	
HB50-48S15		15 VDC	3.33A		1220mA	85	
HB50-48S24		24VDC	2.08A		1209mA	86	

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



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Specifications

Input Specifications

Input Voltage Range:.....12 V.....9 - 18V
24 V.....18 - 36V
48V36 - 75 V
 Undervoltage lockout.....12Vin power up..... 8.8V
 power down..... 8V
 24Vin power up..... 17V
 power down..... 16 V
 48Vin power up..... 34 V
 power down..... 32.5 V
 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, 20 MHz BW, 2.3V,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 Regulation¹±0.2% max.
 Load Regulation²±0.2% max.
 Over Voltage Protection trip Range, % Vo nom.....115 -140%
 Current Limit.....110% - 140% Nominal Output

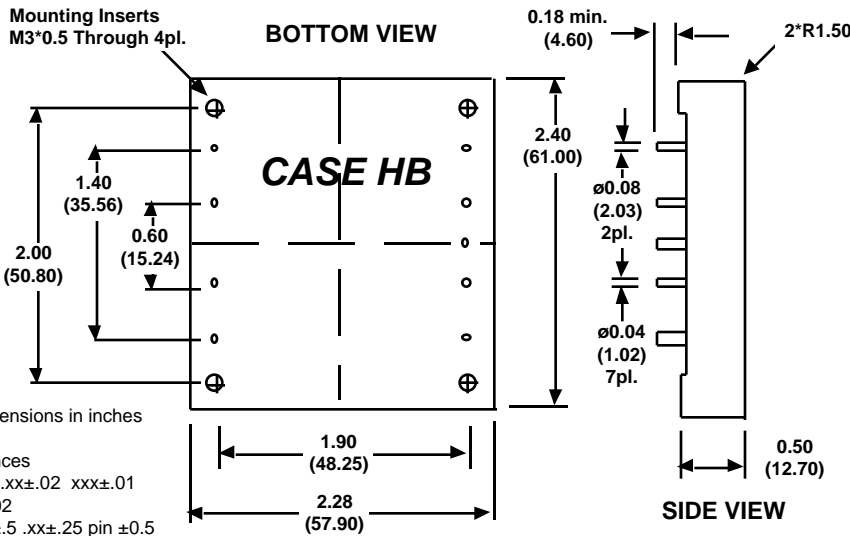
HB50 SERIES

GENERAL SPECIFICATIONS;

Efficiency:.....See Table
 Isolation Voltage..... Input/Output.....1500VDC min.
 Input/Case..... 1500VDC min.
 Output/Case..... 1500VDC min.
 Isolation Resistance.....10⁷ ohm min.
 Switching Frequency.....24Vin.....400KHz, Typ.
 48Vin.....300KHz, Typ.
 Operating case Temperature.....-40°C to 100°C
 Storage Temperature.....-55°C to 105°C
 Thermal Shutdown Range, Case Temp.....105°C to 115°C
 Dimensions.....2.28 x 2.40 x 0.50 inches
 (57.9 x 61.0 x 12.7 mm)
 Case Material.....Aluminum

Notes:

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.....<0.8 Vdc
 4. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF.
- All specifications typical at nominal line, full load, and 25°C unless otherwise noted.

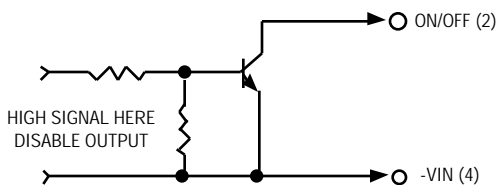


PIN CONNECTION	
Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

External Output Trim

All Dimensions in inches (mm)
 Tolerances
 Inches .xx±.02 xxx±.01
 pin±0.02
 MM .x±.5 .xx±.25 pin ±0.5

Remote ON/OFF Control



External Output Trim

