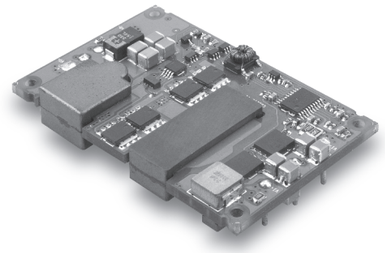
CQB125 SERIES

40-125 WATT 1/4 BRICK DC-DC CONVERTERS



RoHS

Features

- 40-125W Isolated Output
- Quarter Brick Package
- Regulated Outputs
- Efficiency to 92%
- 1500VDC Isolation
- Input Under Voltage Protection
- Over Current Protection
- Over Temperature Protection
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	SIZE
			MIN.	MAX.	NO LOAD	FULL LOAD		
CQB125-48S1V0	36-75 VDC	1.0 VDC	0 mA	40A	60 mA	1016mA	82	Quarter-Brick
CQB125-48S1V2	36-75 VDC	1.2 VDC	0 mA	40A	60 mA	1190mA	84	Quarter-Brick
CQB125-48S1V5	36-75 VDC	1.5 VDC	0 mA	40A	60 mA	1453mA	86	Quarter-Brick
CQB125-48S1V8	36-75 VDC	1.8 VDC	0 mA	40A	60 mA	1724mA	87	Quarter-Brick
CQB125-48S2V5	36-75 VDC	2.5 VDC	0 mA	40A	80 mA	2341mA	89	Quarter-Brick
CQB125-48S3V3	36-75 VDC	3.3 VDC	0 mA	35A	80 mA	2673mA	90	Quarter-Brick
CQB125-48S05	36-75 VDC	5.0 VDC	0 mA	25A	100 mA	2861mA	91	Quarter-Brick
CQB125-48S12	36-75 VDC	12 VDC	0 mA	10A	100 mA	2717mA	92	Quarter-Brick

NOTE: 1. Nominal Input Voltage 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....48V.....36 – 75V
Under voltage lockout ..... power up .....35V typ.
power down ..... 33V typ.
Positive Logic Remote on/off Control (see Note4 & 5)
Input Filter .....PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy.....±1.0% max.
Transient Response :25% Step Load Change.....<500u sec.
Ripple and Noise, 20MHz BW .....100mV p-p max.
5V / 12Vout.....120mV p-p max.
Temperature Coefficient.....±0.03%/C max.
Short Circuit Protection.....Continuous / Hiccup
Line Regulation[1].....±.0.2% max.
Load Regulation[2].....±0.5% max.
Over Voltage Protection Trip Range, %Vo nom.....115%-140%
External Trim Adj. Range[6].....±10%
Current Limit.....110% - 150% Nominal Output

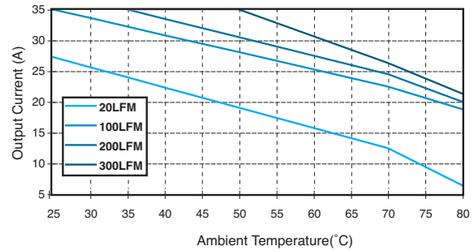
GENERAL SPECIFICATIONS:

Efficiency.....See Table
Isolation Voltage.....1500 VDC min.
Isolation Resistance .....10^7 Ohms min.
Switching Frequency .....200KHz typ.
3.3V/2.5Vout.....250KHz typ.
5V/12Vout.....300KHz typ.
Over Temperature Protection .....120°C typ.
Operating Ambient Temperature Range..... -40°C to +85°C
Power Derating Curve.....Refer to Application Note.
Storage Temperature Range ..... -40°C to +125°C
Dimensions..... 2.30 x 1.45 x 0.42 inches
(58.4 x 36.8 x 10.6 mm)
Weight.....40g

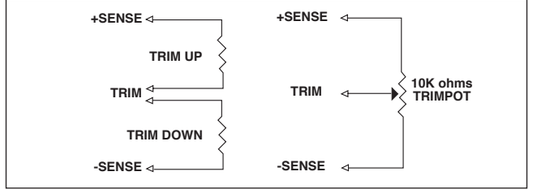
NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. The output ripple and noise is measured with 10uF tantalum and 1uF Ceramic capacitor across output.
4. Logic Compatibility ..... Open Collector ref to -Input
   Module ON ..... Open Circuit
   Module OFF ..... < 1.2Vdc
5. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
   Module ON ..... < 1.2Vdc
   Module OFF ..... 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

Typical Derating Curve for CQB125-48S3V3



External Output Trim

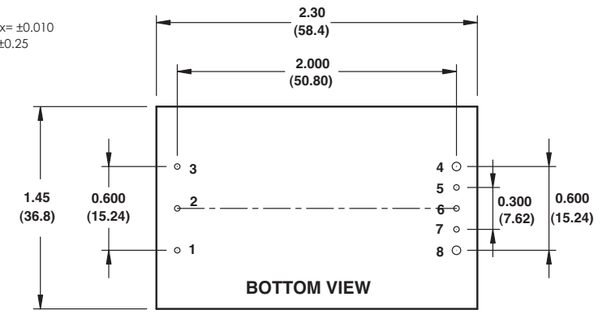


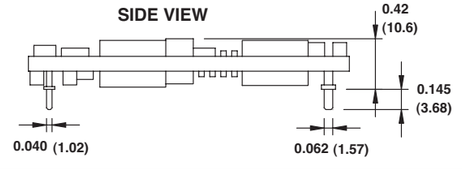
PIN CONNECTION

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

SIZE EB

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.

CQB125