CQB100W

S E R I E S

NEW

100 WATT
4:1 INPUT RANGE
DC-DC CONVERTERS

RoHS

Features

- 100W Isolated Output
- Quarter-Brick Package
- 4 : 1 Input Range
- Efficiency up to 88%
- Regulated Outputs
- Continuous Short Circuit Protection
- OTP / OVP / OCP
- 1500VDC Isolation

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	SIZE
			MIN.	MAX.	NO LOAD	FULL LOAD		
CQB100W-48S3V3	18-75VDC	3.3VDC	0mA	30 A	60mA	2344mA	88	Quarter-Brick
CQB100W-48S05	18-75VDC	5.0VDC	0mA	20 A	60mA	2367mA	88	Quarter-Brick
CQB100W-48S12	18-75VDC	12 VDC	0mA	8.3A	30mA	2358mA	88	Quarter-Brick
CQB100W-48S15	18-75VDC	15 VDC	0mA	6.7 A	30mA	2379mA	88	Quarter-Brick
CQB100W-48S24	18-75VDC	24 VDC	0mA	4.17 A	30mA	2369mA	88	Quarter-Brick

NOTE: 1. Nominal Input Voltage 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....48V.....18 - 75V
Under voltage lockout .....48Vin power up.....17V typ.
power down.....16V typ.
Input Filter .....Pi Type
Positive Logic Remote ON/OFF (see note 4 & 5)

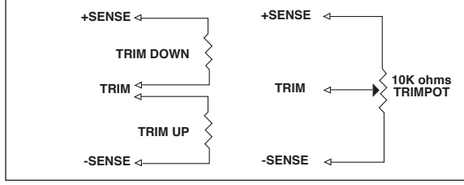
OUTPUT SPECIFICATIONS:

Voltage Accuracy : ..... ±1.5% max.
Transient Response :75% to 100% Step Load Change
Error Band.....3.3V±6% Vout, Othhers±5% Vout
Recover Time.....<500uS
External Trim Adj. Range[6] ..... ±10%
Ripple & Noise, 20MHz BW[3]
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
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% ~160% 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 ..... 250KHz, Typ.
Power De-rating Curve.....refer to Application Note
Operating Case Temperature .....-40°C to 100°C
Storage Temperature Range.....-40°C to +105°C
Thermal Shutdown, Case Temp. ..... 110°C Typ.
Dimensions.....1.45 x 2.28 x 0.50 inches(36.8 x 57.9 x 12.7 mm)
Case Material .....Aluminum Base-plate with Plastic Case
Weight..... ...TBD

External Output Trim



PIN CONNECTION

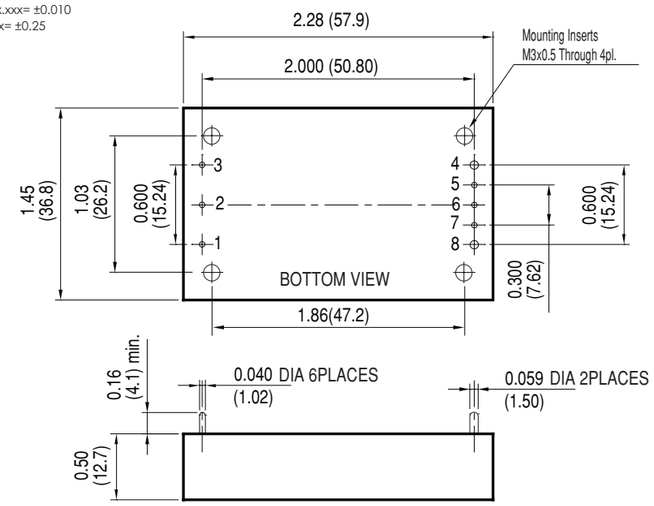
Pin	Function
1	+V Input
2	ON/OFF
3	-V Input
4	-V Output
5	-Sense
6	Trim
7	+Sense
8	+Vout

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to min. Load
3. The output noise is measured with 10uF tantalum capacitor and 1uF ceramic capacitor across output
4. Logic Compatibility ..... Open Collector ref to -Input
   Module ON ..... >3.5Vdc to 75Vdc or 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 ..... >3.5Vdc to 75Vdc 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

SIZE QB

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.

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