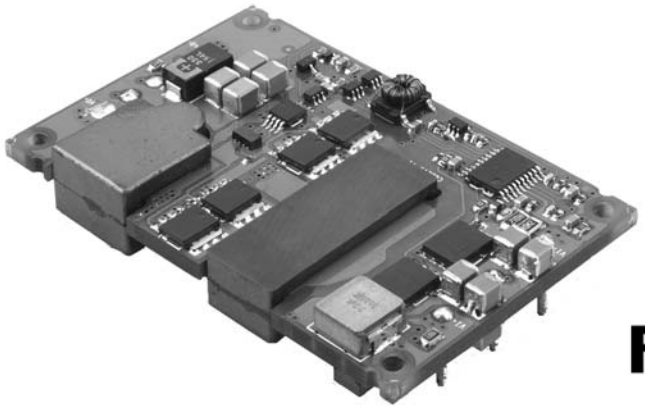
PART NUMBER: VQB125 series

DESCRIPTION: DC/DC converter



RoHS

features
- **40-125 W isolated output**
- **efficiency to 92%**
- **fixed switching frequency**
- **monotonic start-up into pre-biased load**
- **input under-voltage protection**
- **over-temperature protection**
- **over current protection**
- **remote ON/OFF**
- **industry standard quarter-brick package**
- **fully isolated 2250 VDC**

model number	input voltage	output voltage	output current	input current no load	input current full load	efficiency
VQB125-D48-S1	36-75 VDC	1.0 VDC	40 A	60 mA	1004 mA	83%
VQB125-D48-S1R2	36-75 VDC	1.2 VDC	40 A	60 mA	1176 mA	85%
VQB125-D48-S1R5	36-75 VDC	1.5 VDC	40 A	60 mA	1436 mA	87%
VQB125-D48-S1R8	36-75 VDC	1.8 VDC	40 A	60 mA	1705 mA	88%
VQB125-D48-S2R5	36-75 VDC	2.5 VDC	40 A	60 mA	2341 mA	89%
VQB125-D48-S3R3	36-75 VDC	3.3 VDC	35 A	60 mA	2704 mA	89%
VQB125-D48-S5	36-75 VDC	5 VDC	25 A	60 mA	2894 mA	90%
VQB125-D48-S9	36-75 VDC	9 VDC	13 A	60 mA	2679 mA	91%
VQB125-D48-S12	36-75 VDC	12 VDC	10 A	60 mA	2717 mA	92%

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INPUT

input voltage range	48V:	36-75V
under voltage lockout	48 Vin power up	35 V
	48 Vin power down	33 V
input filter		LC type
logic compatibility	CMOS or open collector TTL	
module ON	open circuit or logic high	
module OFF		<12 VDC

OUTPUT

voltage accuracy		±1.0% max.
transient response:	25% step load change	<500 µS
ripple & noise	20MHz BW	100 mV p-p max.
temperature coefficient		±0.03%/°C max.
line regulation[1]	single/dual	±0.2% max.
load regulation[2]	single/dual	±0.5% max.
over-voltage protection		115-140%
output current limit	% nom. output	110-140%
short circuit protection	continuous/hiccup	
external trim adj.		±10%

GENERAL SPECIFICATIONS

efficiency		see table
isolation voltage		2250VDC min.
isolation resistance		10^7 Ohm min.
switching frequency		250KHz, typ.
over temperature protection		120°C typ.
operating temp. range		-40°C to 85°C
storage temp.		-40°C to 125°C
dimensions	2.3x1.45x0.36 inches	
	(58.4x36.8x9.2mm)	
weight	50 g	

NOTES:
1. measured from high line to low line
2. measured from full load to 1/4 load
3. suffix “N” to the model number with negative logic remote ON/OFF
   module ON <1.2 VDC
   module OFF open circuit or logic high
4. output ripple and noise is measured with 10 µF tantalum and 1 µF ceramic capacitor across output.

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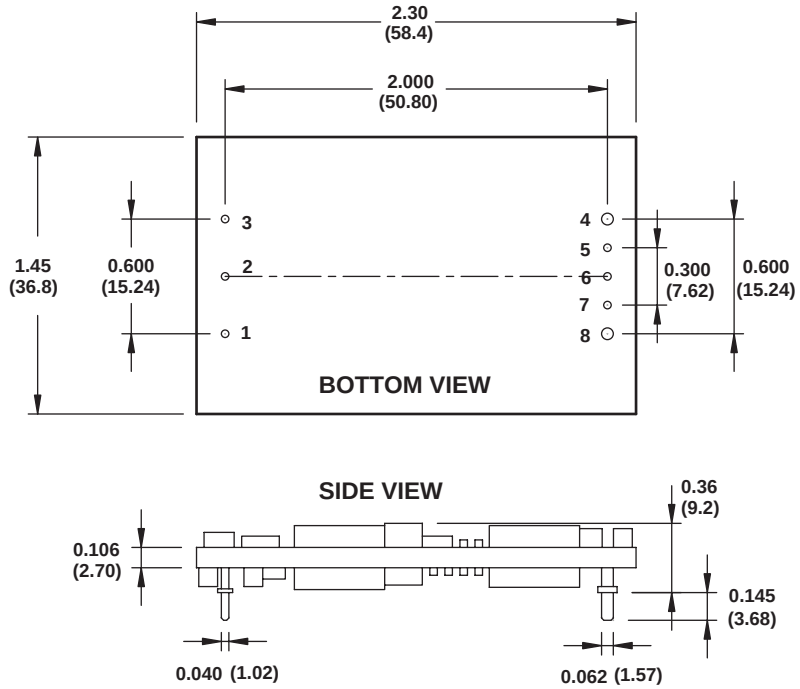
DIMENSIONS (mm)

All Dimensions In Inches(mm)
Tolerance .xx ±.02 (.x ±0.5)
.xxx ±.010 (.xx ± 0.25)



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

All Specification s Typical At Nominal Line, Full Load and 25˚C Unless Otherwise Noted.

DERATING CURVE

