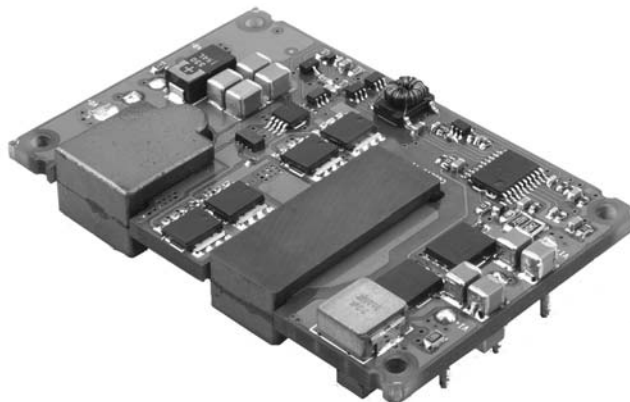


PART NUMBER: VQB125 series

DESCRIPTION: DC/DC converter

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 | | efficiency |
|-----------------|---------------|----------------|----------------|---------------|-----------|------------|
| | | | | no load | full load | |
| 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% |

**PART NUMBER:** VQB125 series**DESCRIPTION:** DC/DC converter**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:

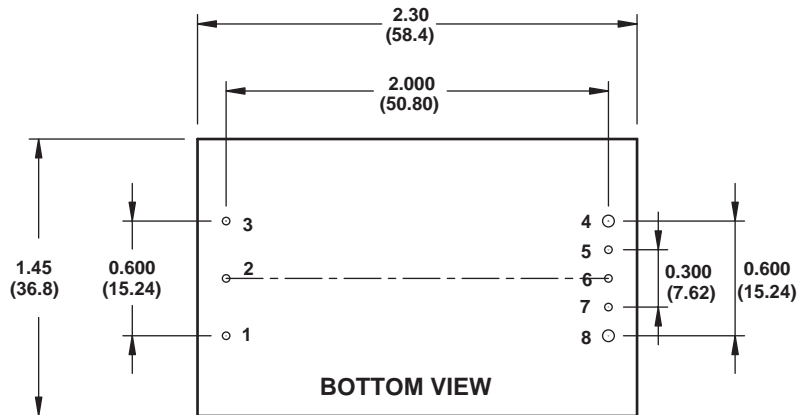
1. measured from high line to low line
2. measured from full load to 1/4 load
3. suffix "N" to the model number with negative logic remote ON/OFF
 module ON <1.2 VDC
 module OFF open circuit or logic high
4. output ripple and noise is measured with 10 µF tantalum and 1 µF ceramic capacitor across output.

PART NUMBER: VQB125 series

DESCRIPTION: DC/DC converter

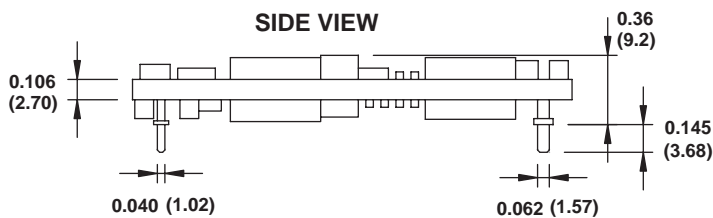
DIMENSIONS (mm)

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 Specifications Typical At Nominal Line, Full Load and 25°C Unless Otherwise Noted .

DERATING CURVE

