

**Datasheet for #sbcw1604 DN**

Recommendations:

Please read the starter kit user manual (at least installation chapter 5), if available, and have a look at the FAQ at <http://www.alpeslasers.ch/alfaq.pdf>

**WARNING:** Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

**WARNING:** Beware of the polarity of the laser. This laser has to be powered with negative current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To use with a power-supply ILX Lightwave LDX-3232 or equivalent.



Figure 1: Support mounting for #sbcw1604 DN (please note that the laser is connected to the DN pad drawn in blue)

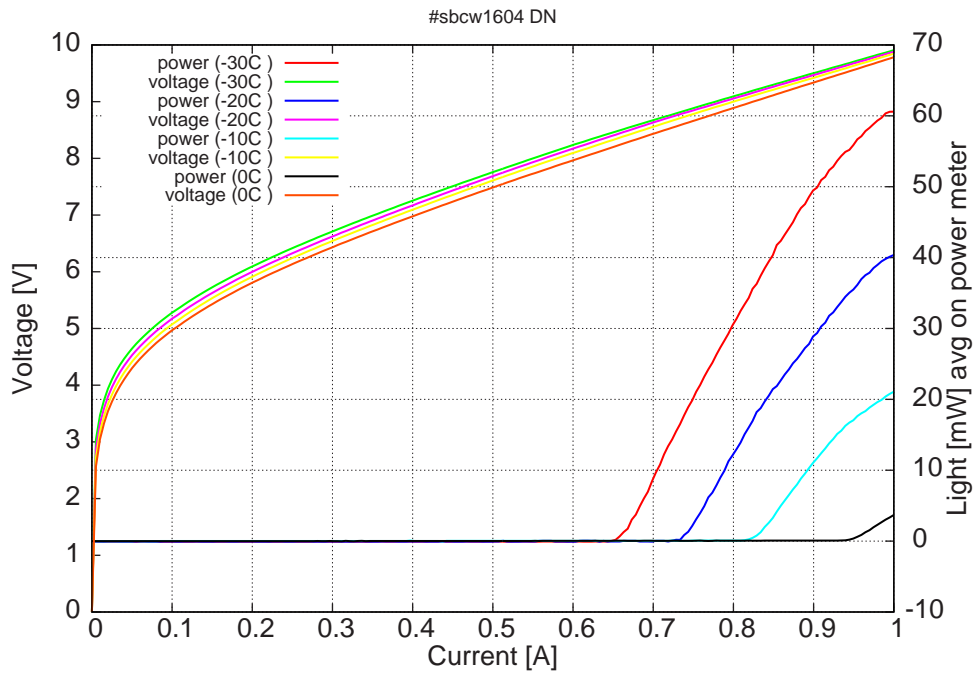


Figure 2: voltage and avg power vs current in continuous-wave operation for uncoated/uncoated facets

Note: at -30C:  $I_{th}=640\text{mA}$  /  $V_{th}= 8.4\text{V}$  (2-wires measurements). Maximum operation current: 1.0A for all temperatures.

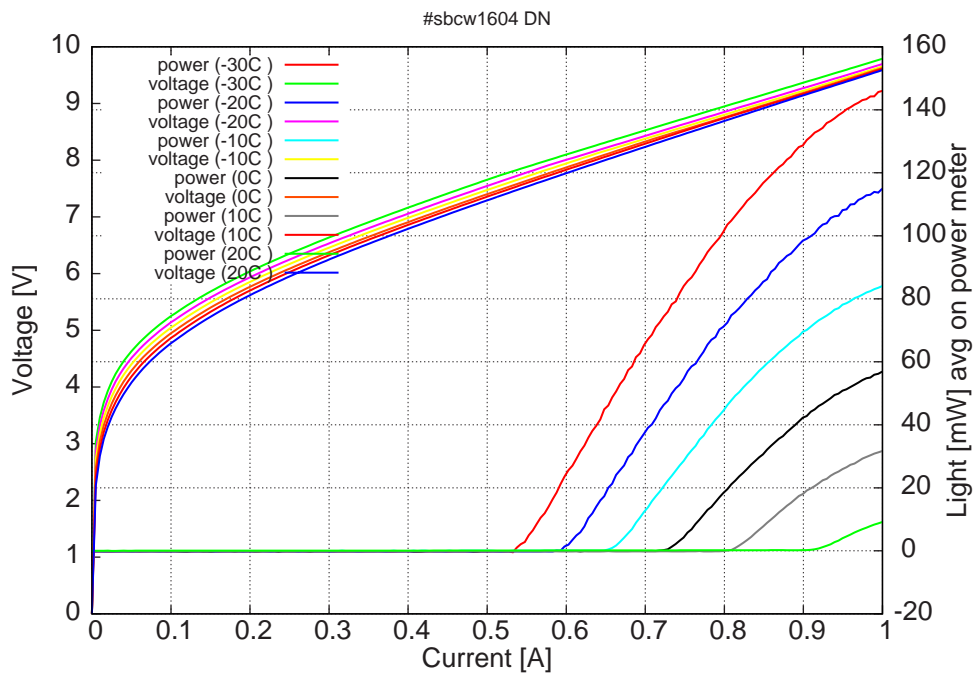
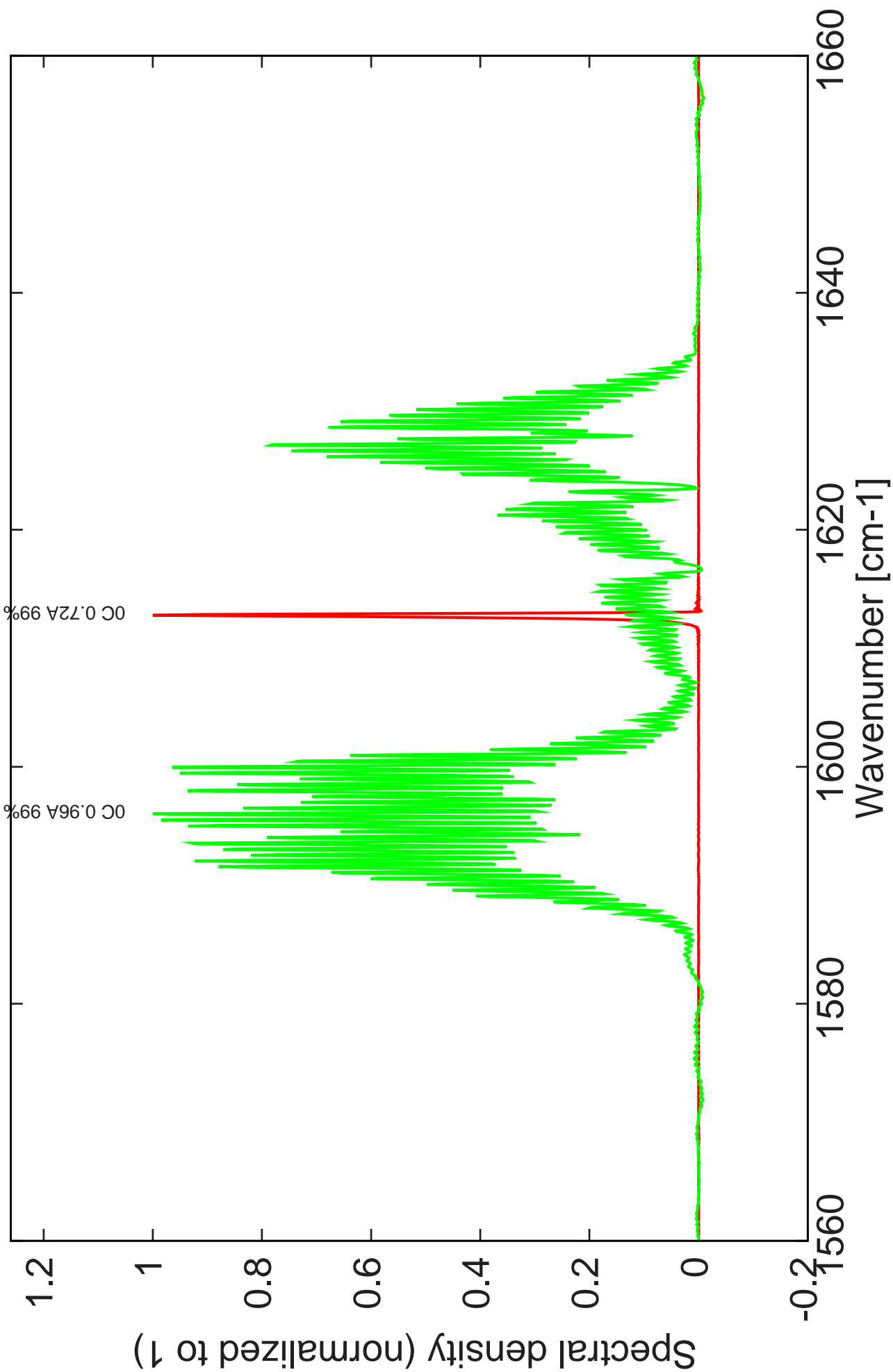


Figure 3: voltage and avg power vs current in continuous-wave operation for uncoated/HR-coated facets

Note: HR back-facet coated

Note: at -30C:  $I_{th}=530\text{mA}$  /  $V_{th}= 7.8\text{V}$  (2-wires measurements). Maximum operation current: 1.0A for all temperatures.

Figure 4: spectra at different temperatures for various DC currents



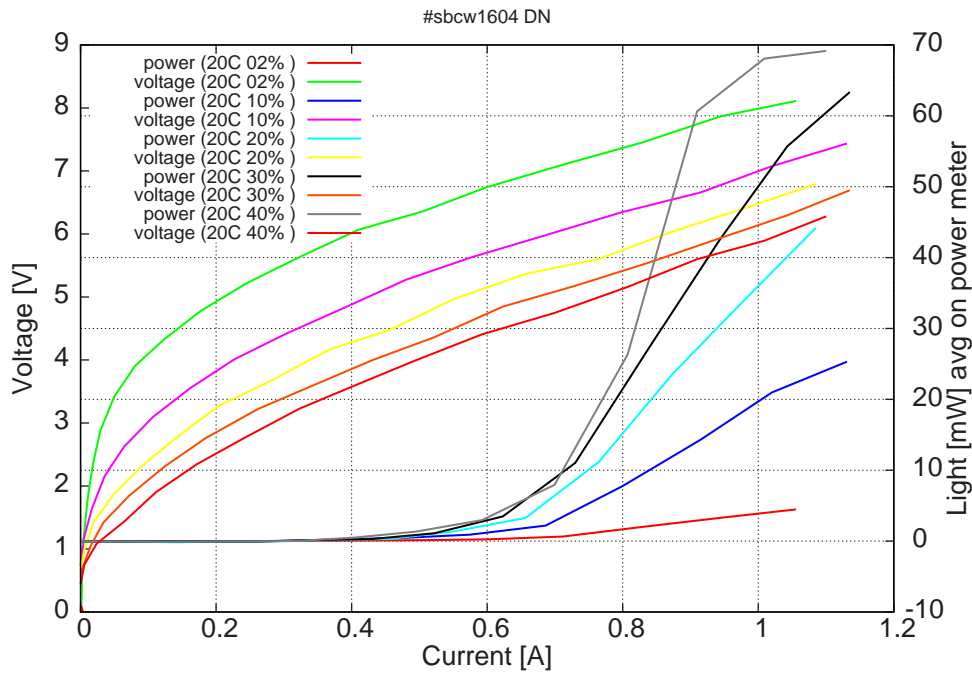


Figure 4: peak voltage and average power vs peak current at various duty-cycle for uncoated/HR-coated facets (100ns pulses)

Note: HR back-facet coated

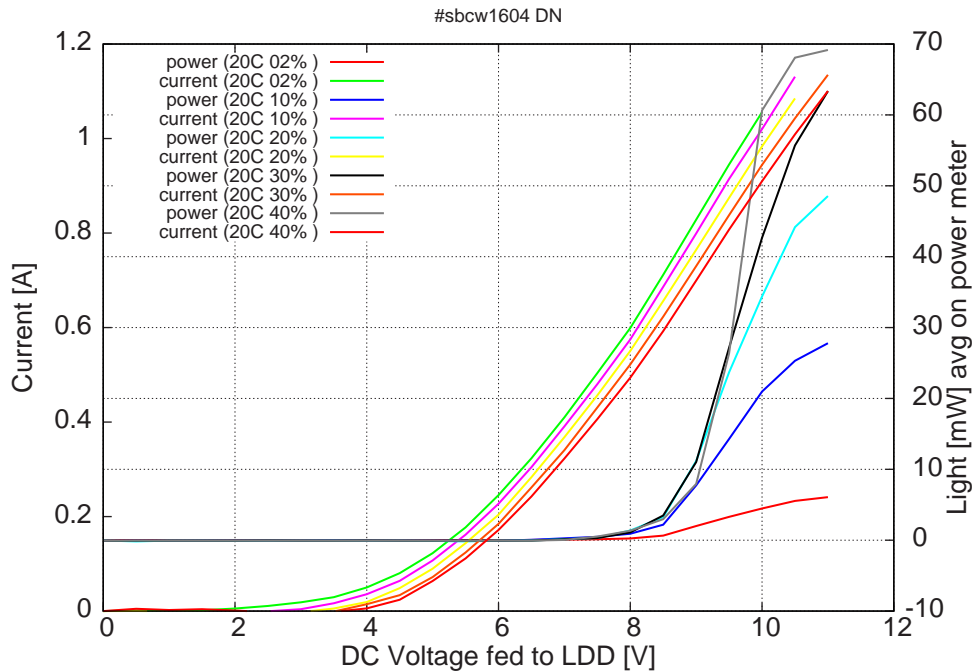


Figure 5: peak current and average power vs LDD voltage at various duty-cycle (100ns pulses)