

Datasheet for #sbcw24662 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

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 bias and positive bias on the specific zones drawn below. To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.

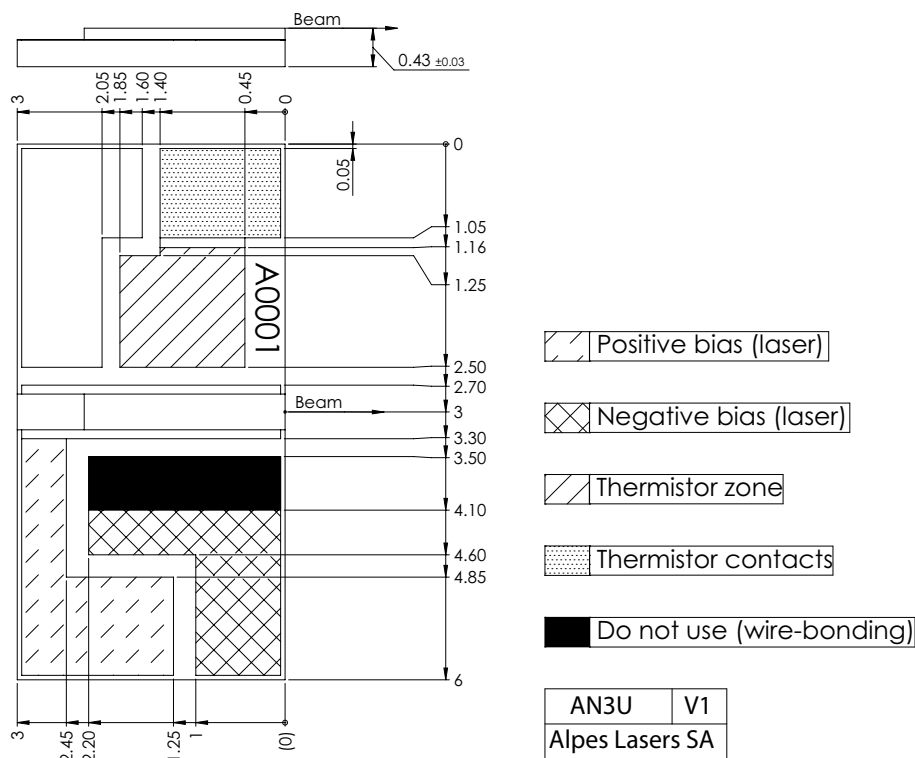


Figure 1: Mechanical and electrical interface for #sbcw24662 DN (please note that AlN submount numbering is A105M)

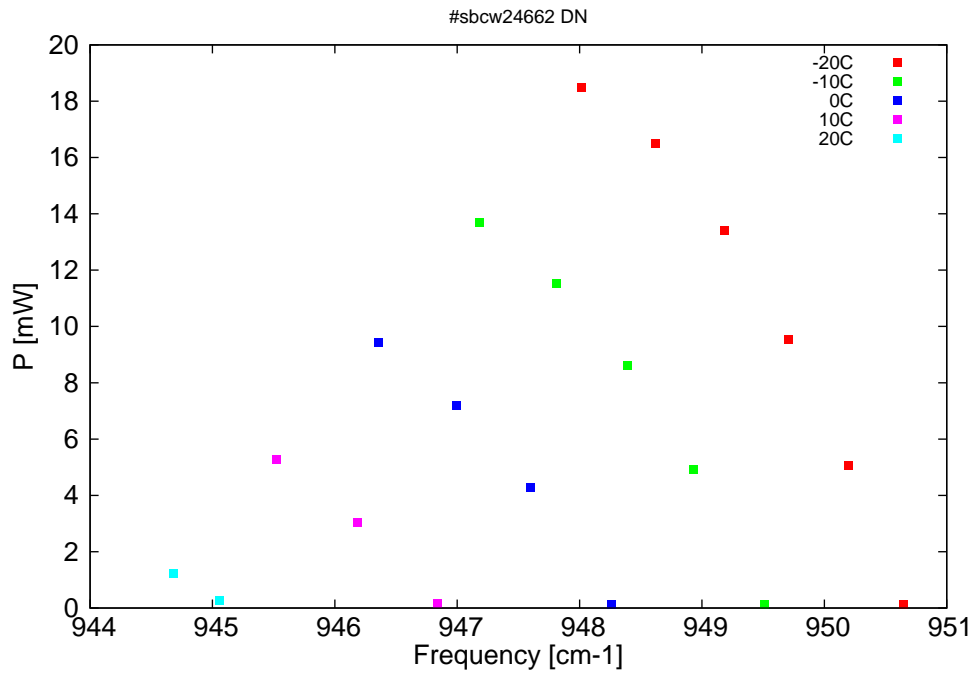


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

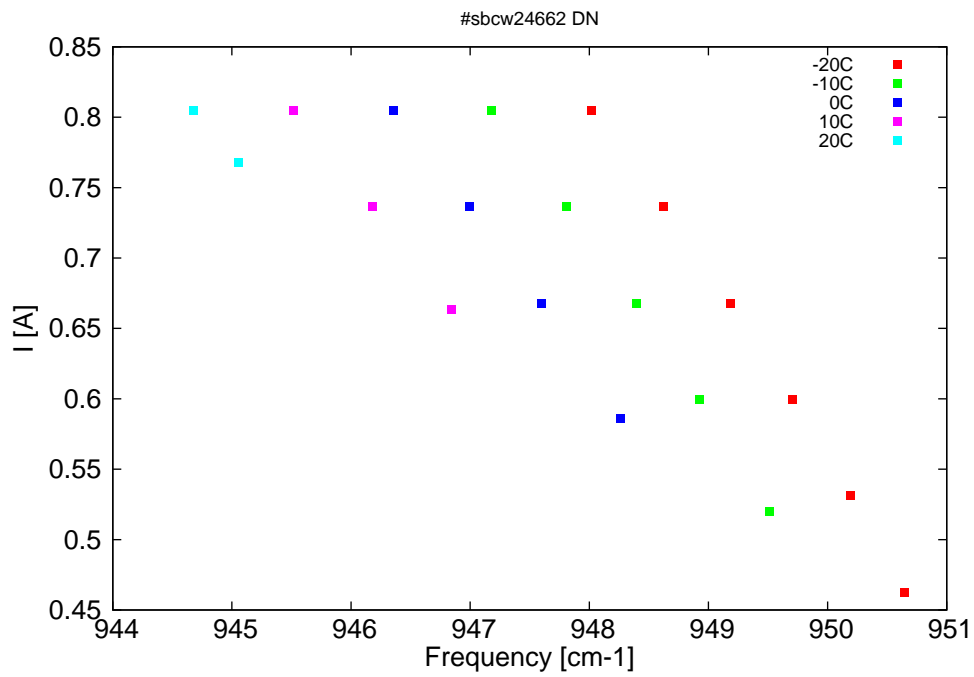


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10519.2	950.6	0.1	-20	9.07	0.463
10524.2	950.2	5	-20	9.32	0.531
10529.6	949.7	9.5	-20	9.62	0.6
10535.4	949.2	13.4	-20	9.9	0.668
10541.6	948.6	16.5	-20	10.17	0.736
10548.4	948	18.5	-20	10.46	0.805
10531.7	949.5	0.1	-10	9.18	0.52
10538.2	948.9	4.9	-10	9.57	0.6
10544.2	948.4	8.6	-10	9.74	0.668
10550.7	947.8	11.5	-10	10.08	0.736
10557.7	947.2	13.7	-10	10.37	0.805
10545.6	948.3	0.1	0	9.31	0.586
10553	947.6	4.3	0	9.67	0.668
10559.7	947	7.2	0	9.97	0.736
10566.9	946.4	9.4	0	10.27	0.805
10561.4	946.8	0.2	10	9.56	0.663
10568.8	946.2	3	10	9.88	0.736
10576.2	945.5	5.3	10	10.18	0.805
10581.4	945.1	0.3	20	9.93	0.768
10585.6	944.7	1.2	20	10.1	0.805

Table 1: Singlemode optical output power as function of operating parameters.

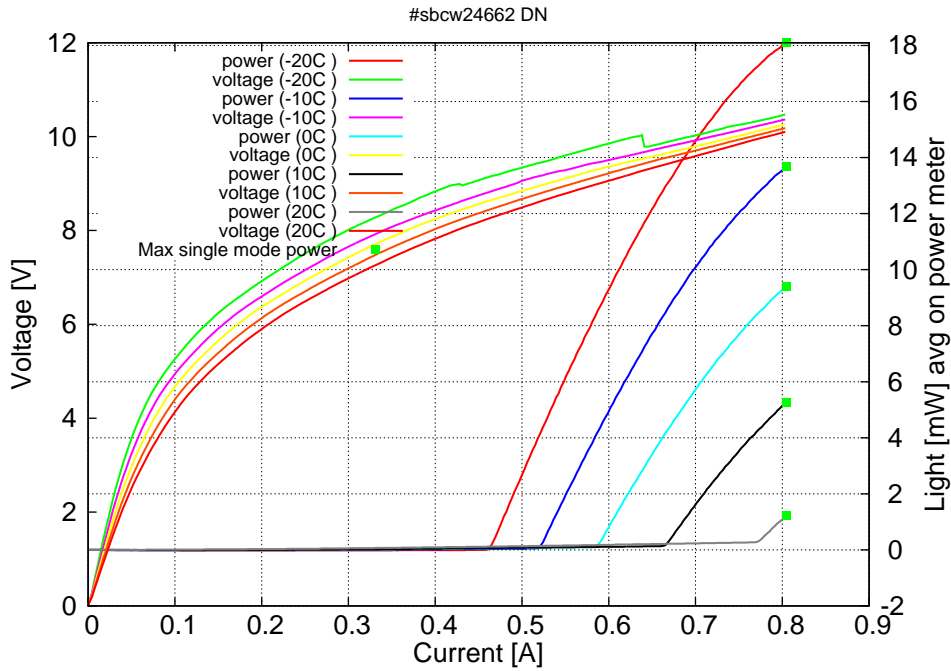


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.45A$ / $V_{th}=9.0V$ (2-wires measurements). Maximum operation current: 0.805A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

