

Datasheet for #sbcw24661 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.

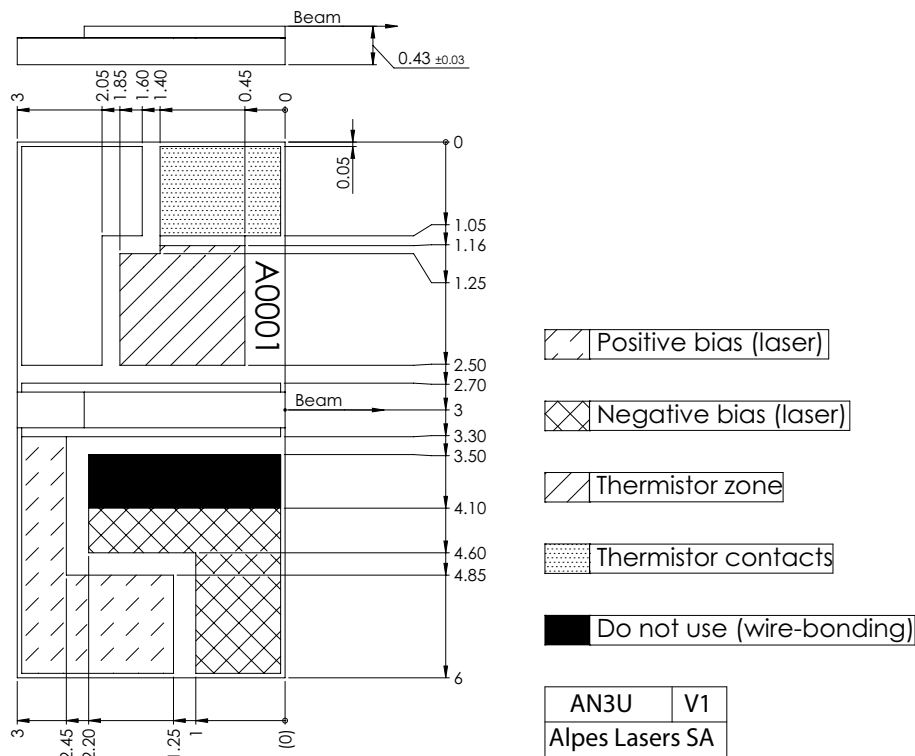


Figure 1: Mechanical and electrical interface for #sbcw24661 DN (please note that AlN submount numbering is A1058)

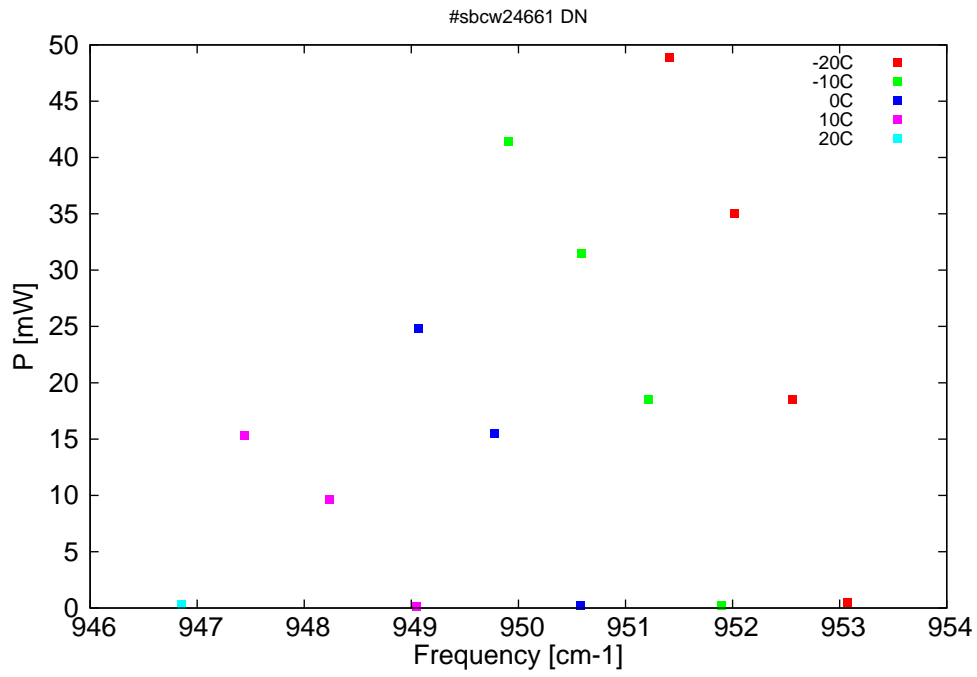


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

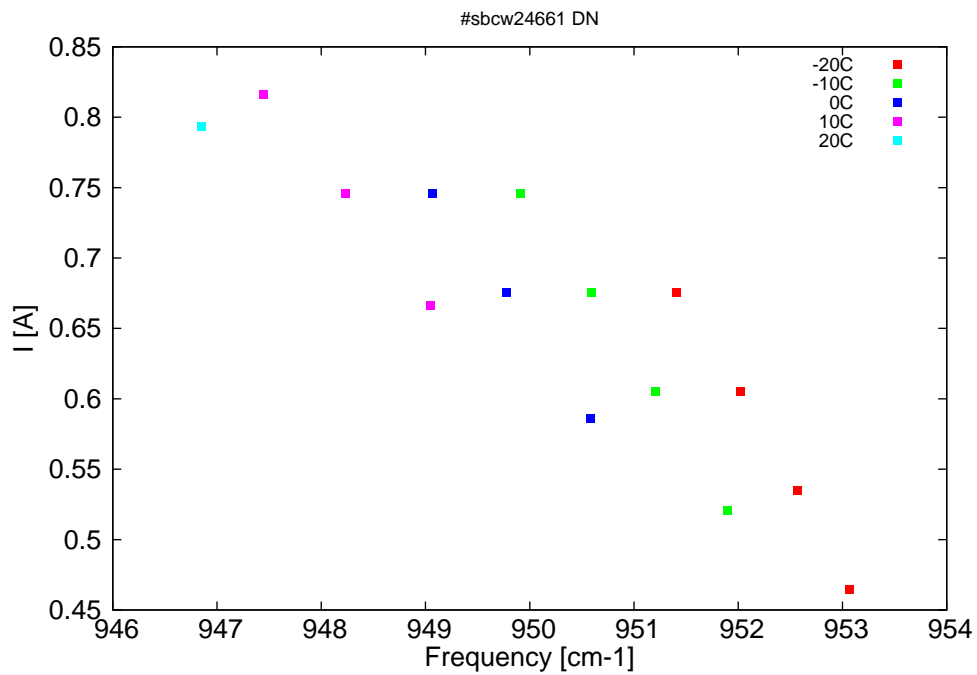


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10492.4	953.1	0.5	-20	9.01	0.465
10498	952.6	18.5	-20	9.35	0.535
10504	952	35	-20	9.67	0.605
10510.7	951.4	48.8	-20	9.99	0.676
10505.4	951.9	0.3	-10	9.14	0.521
10512.9	951.2	18.5	-10	9.54	0.605
10519.8	950.6	31.5	-10	9.86	0.676
10527.3	949.9	41.4	-10	10.18	0.746
10519.9	950.6	0.2	0	9.36	0.586
10528.8	949.8	15.5	0	9.77	0.676
10536.7	949.1	24.8	0	10.09	0.746
10536.9	949	0.2	10	9.61	0.666
10545.9	948.2	9.7	10	9.98	0.746
10554.7	947.4	15.3	10	10.31	0.816
10561.3	946.9	0.3	20	10.13	0.793

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

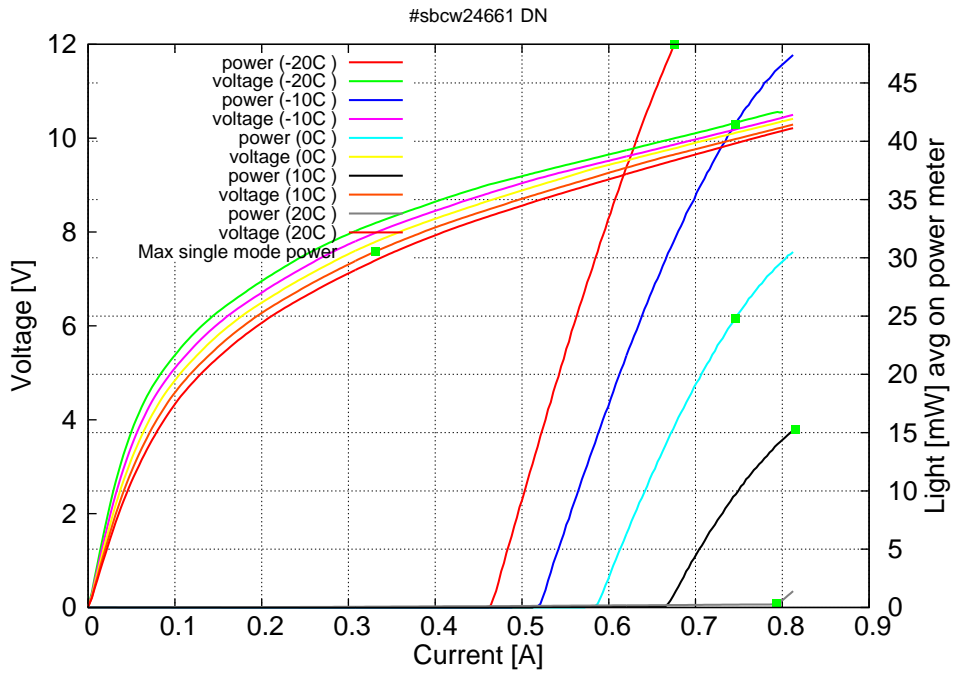


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.46A$ / $V_{th}=9.0V$ (2-wires measurements). Maximum operation current: 0.70A at -20C, 0.75A between -10C and 0C, 0.815A between 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

