

**Datasheet for #sbcw25113 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.

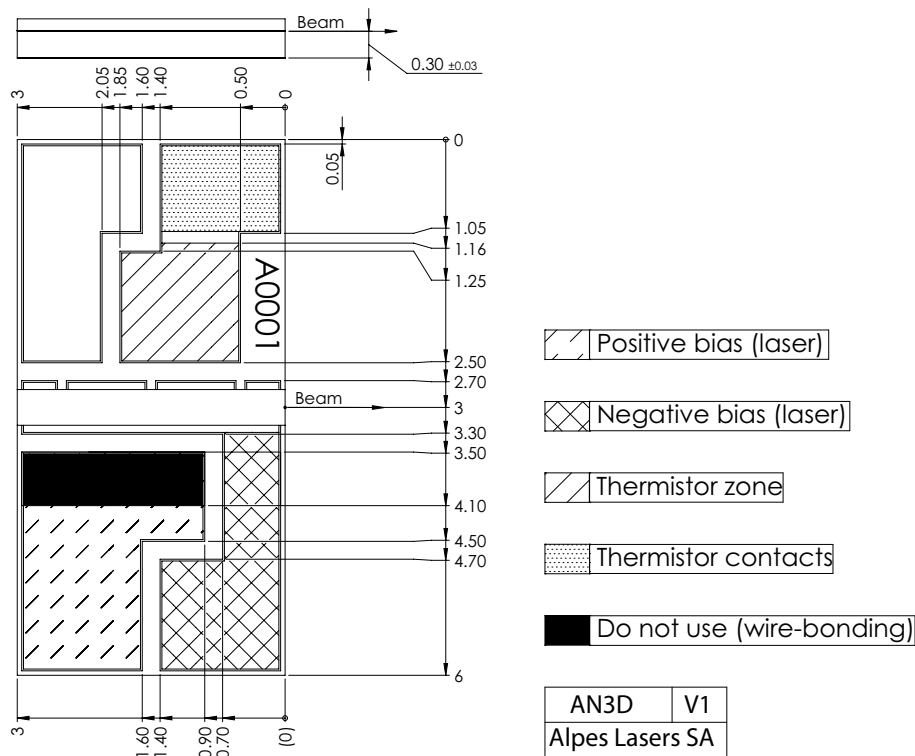


Figure 1: Mechanical and electrical interface for #sbcw25113 DN (please note that AlN submount numbering is P4159)

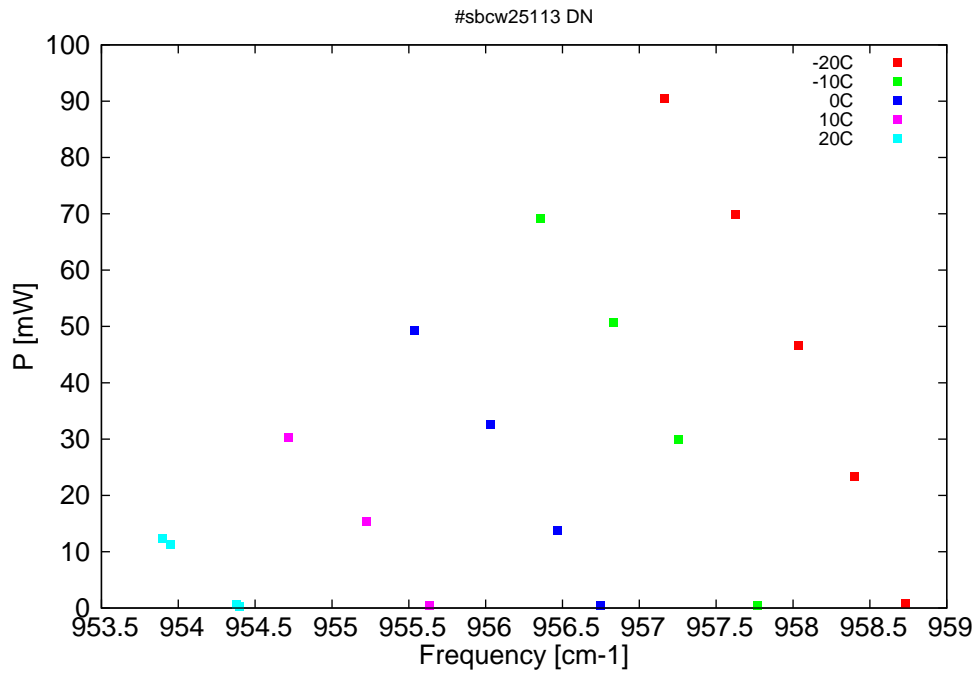


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

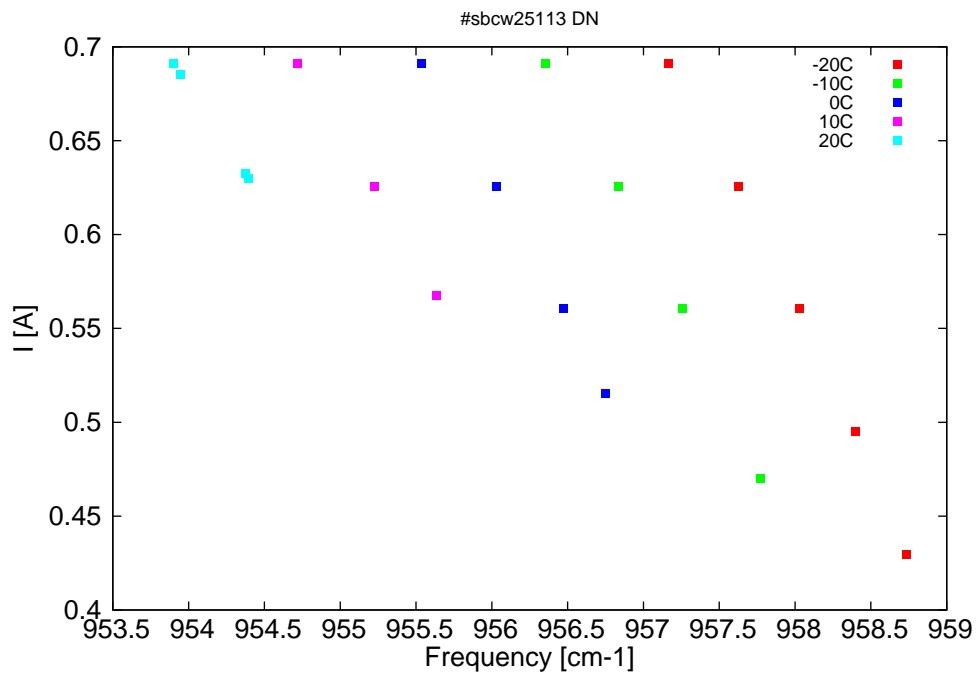


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10430.4	958.7	0.8	-20	8.04	0.43
10434.1	958.4	23.4	-20	8.31	0.495
10438.1	958	46.7	-20	8.6	0.561
10442.5	957.6	69.8	-20	8.91	0.626
10447.5	957.2	90.5	-20	9.25	0.691
10440.9	957.8	0.4	-10	8.17	0.47
10446.5	957.3	29.9	-10	8.57	0.561
10451.1	956.8	50.7	-10	8.89	0.626
10456.4	956.4	69.1	-10	9.24	0.691
10452.1	956.7	0.4	0	8.36	0.515
10455.1	956.5	13.8	0	8.58	0.561
10459.9	956	32.7	0	8.91	0.626
10465.3	955.5	49.3	0	9.26	0.691
10464.2	955.6	0.5	10	8.58	0.568
10468.7	955.2	15.4	10	8.87	0.626
10474.3	954.7	30.3	10	9.22	0.691
10477.8	954.4	0.3	20	8.88	0.63
10478	954.4	0.6	20	8.87	0.632
10482.8	953.9	11.4	20	9.18	0.686
10483.3	953.9	12.4	20	9.18	0.691

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

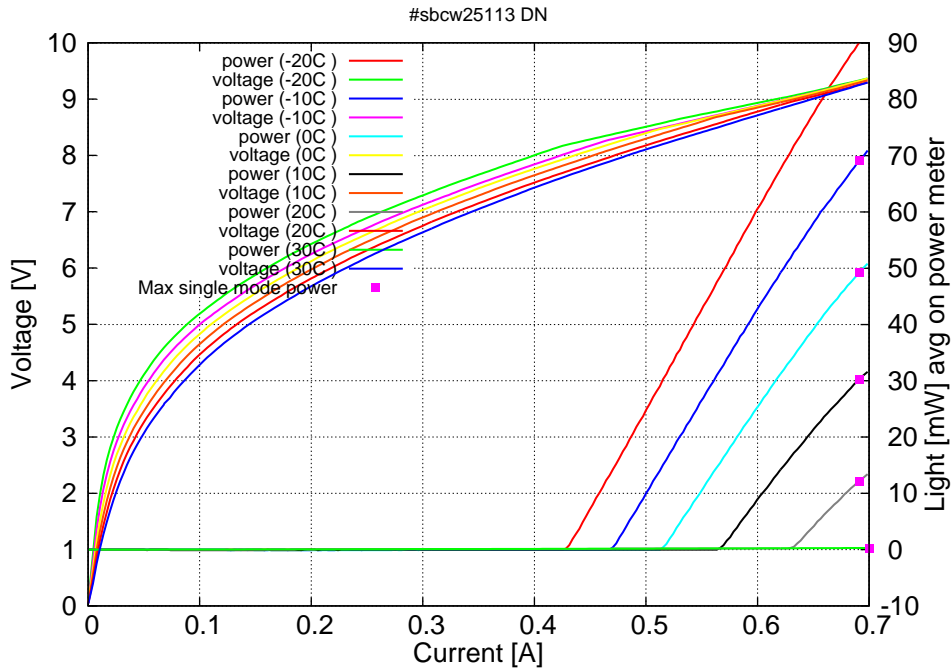


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.42A$  /  $V_{th}=8.0V$  (2-wires measurements). Maximum operation current: 0.700A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

