

Datasheet for #sbcw25118 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.

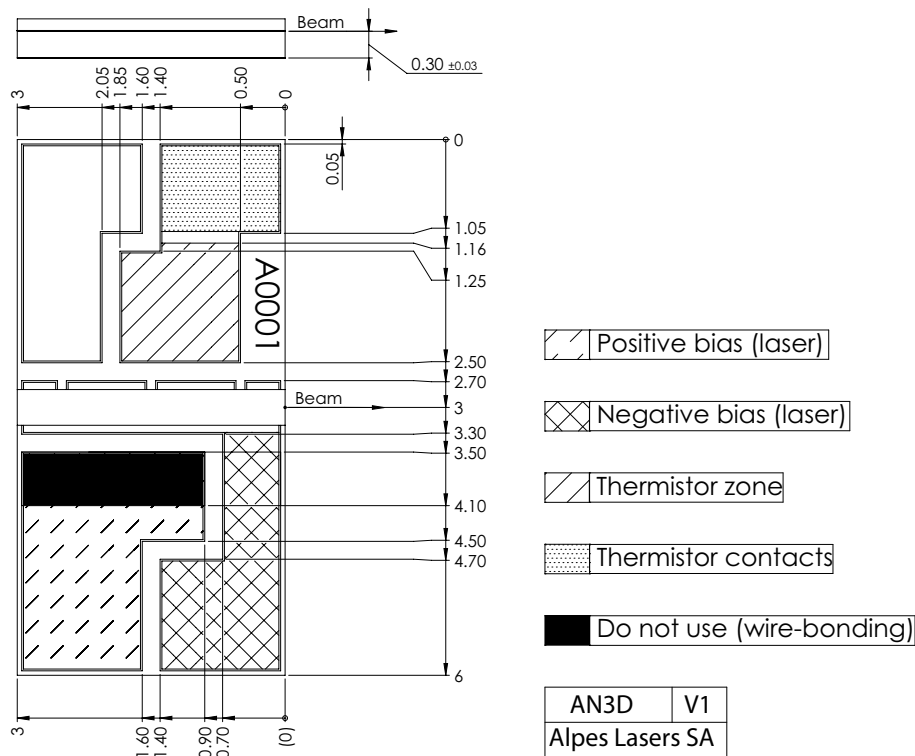


Figure 1: Mechanical and electrical interface for #sbcw25118 DN (please note that AlN submount numbering is P3784)

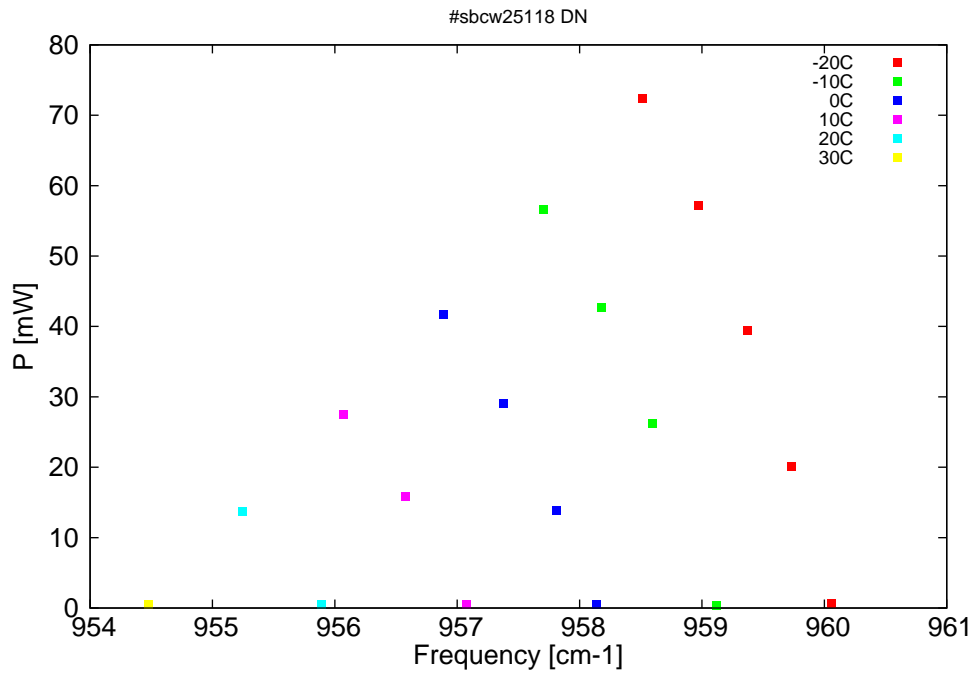


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

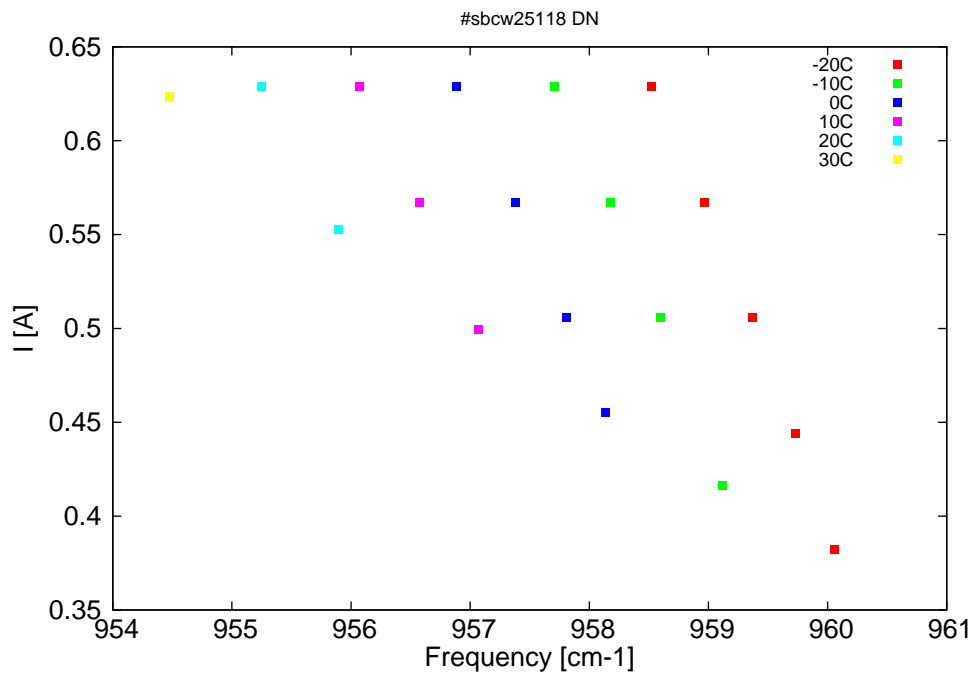


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10416	960.1	0.7	-20	8.15	0.382
10419.6	959.7	20	-20	8.45	0.444
10423.5	959.4	39.4	-20	8.78	0.506
10427.9	959	57.2	-20	9.11	0.567
10432.8	958.5	72.4	-20	9.47	0.629
10426.2	959.1	0.3	-10	8.27	0.417
10431.9	958.6	26.2	-10	8.74	0.506
10436.5	958.2	42.6	-10	9.09	0.567
10441.6	957.7	56.6	-10	9.47	0.629
10436.9	958.1	0.5	0	8.45	0.455
10440.5	957.8	13.8	0	8.72	0.506
10445.2	957.4	29.1	0	9.08	0.567
10450.5	956.9	41.8	0	9.47	0.629
10448.5	957.1	0.5	10	8.68	0.499
10454	956.6	15.9	10	9.07	0.567
10459.5	956.1	27.5	10	9.46	0.629
10461.4	955.9	0.5	20	8.96	0.553
10468.5	955.2	13.7	20	9.44	0.629
10477	954.5	0.4	30	9.42	0.624

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

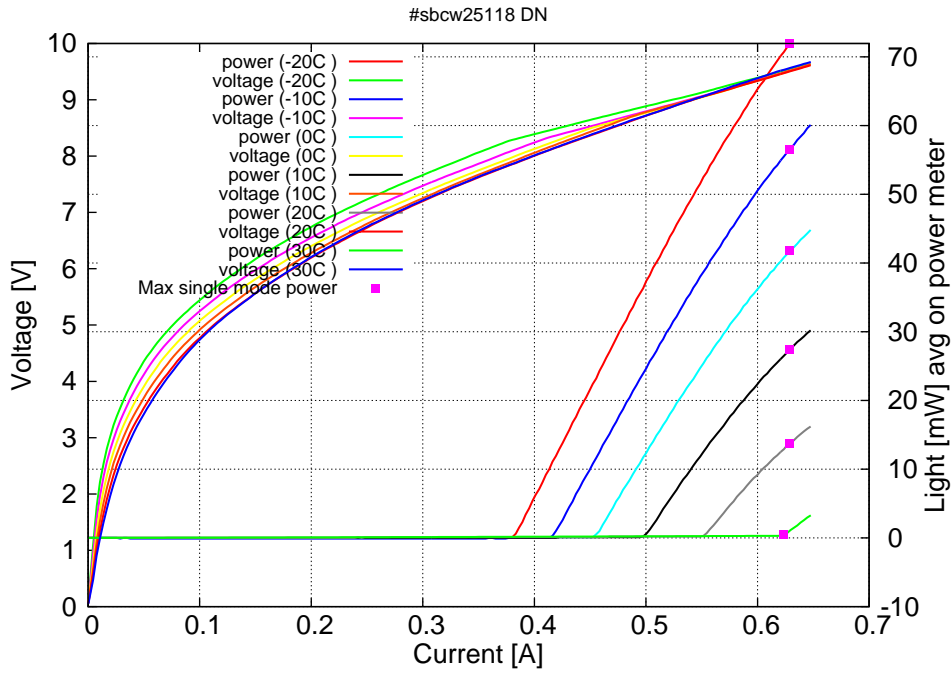


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.37A$ / $V_{th}=8.1V$ (2-wires measurements). Maximum operation current: 0.650A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

