

Datasheet for #sbcw27329 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

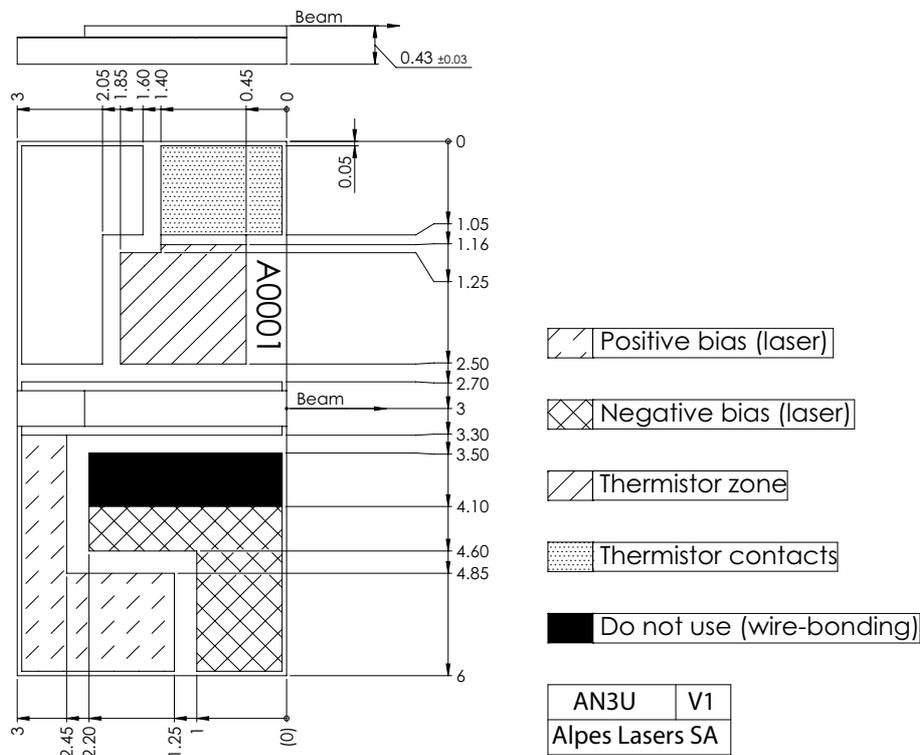


Figure 1: Mechanical and electrical interface for #sbcw27329 DN (please note that AlN submount numbering is A0YNL)

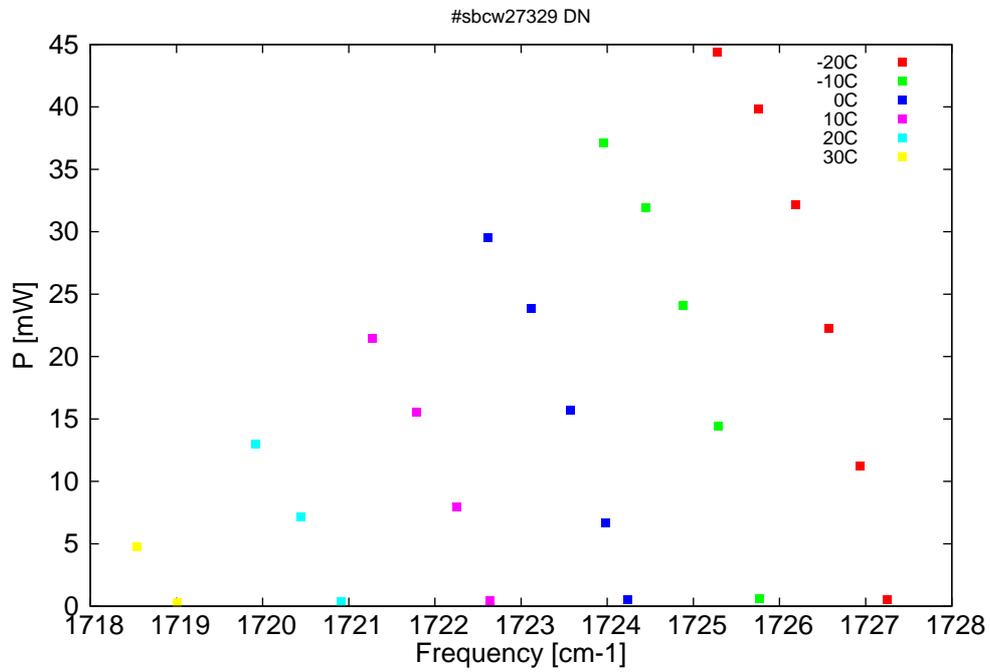


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

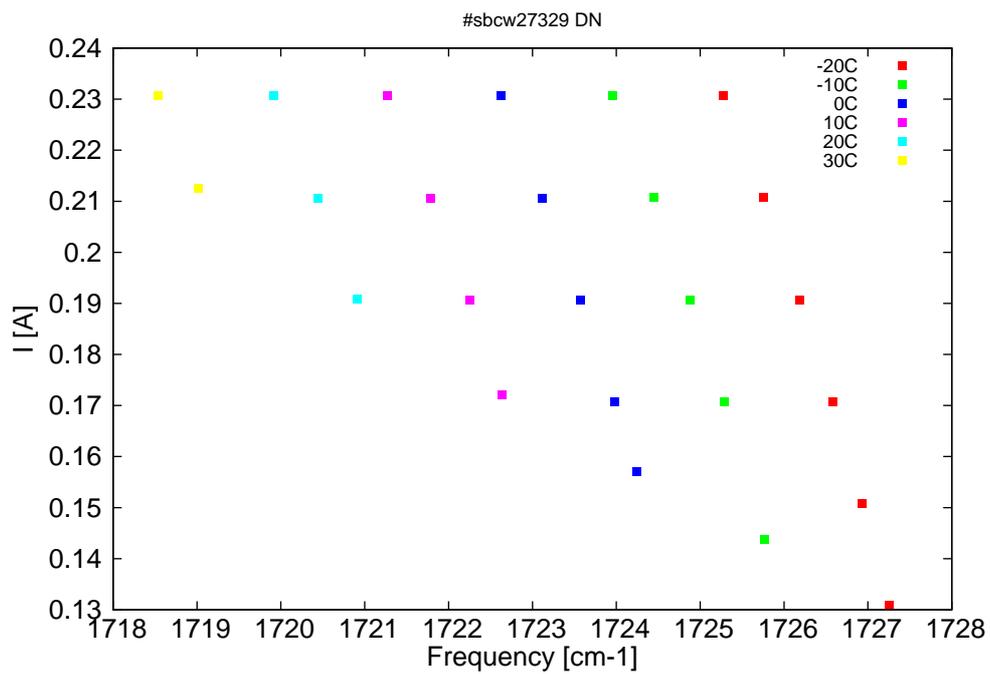


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5789.5	1727.3	0.5	-20	8.21	0.131
5790.6	1726.9	11.2	-20	8.49	0.151
5791.8	1726.6	22.2	-20	8.77	0.171
5793.1	1726.2	32.2	-20	9.07	0.191
5794.6	1725.8	39.9	-20	9.38	0.211
5796.2	1725.3	44.4	-20	9.7	0.231
5794.5	1725.8	0.6	-10	8.31	0.144
5796.1	1725.3	14.4	-10	8.69	0.171
5797.5	1724.9	24.1	-10	8.97	0.191
5799	1724.4	32	-10	9.28	0.211
5800.6	1724	37.1	-10	9.59	0.231
5799.7	1724.2	0.5	0	8.41	0.157
5800.5	1724	6.7	0	8.6	0.171
5801.9	1723.6	15.7	0	8.88	0.191
5803.4	1723.1	23.9	0	9.18	0.211
5805.1	1722.6	29.5	0	9.49	0.231
5805.1	1722.6	0.5	10	8.54	0.172
5806.3	1722.3	8	10	8.8	0.191
5807.9	1721.8	15.6	10	9.09	0.211
5809.6	1721.3	21.4	10	9.4	0.231
5810.9	1720.9	0.4	20	8.75	0.191
5812.5	1720.4	7.2	20	9.03	0.211
5814.2	1719.9	13	20	9.33	0.231
5817.3	1719	0.3	30	8.99	0.213
5818.9	1718.5	4.8	30	9.26	0.231

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

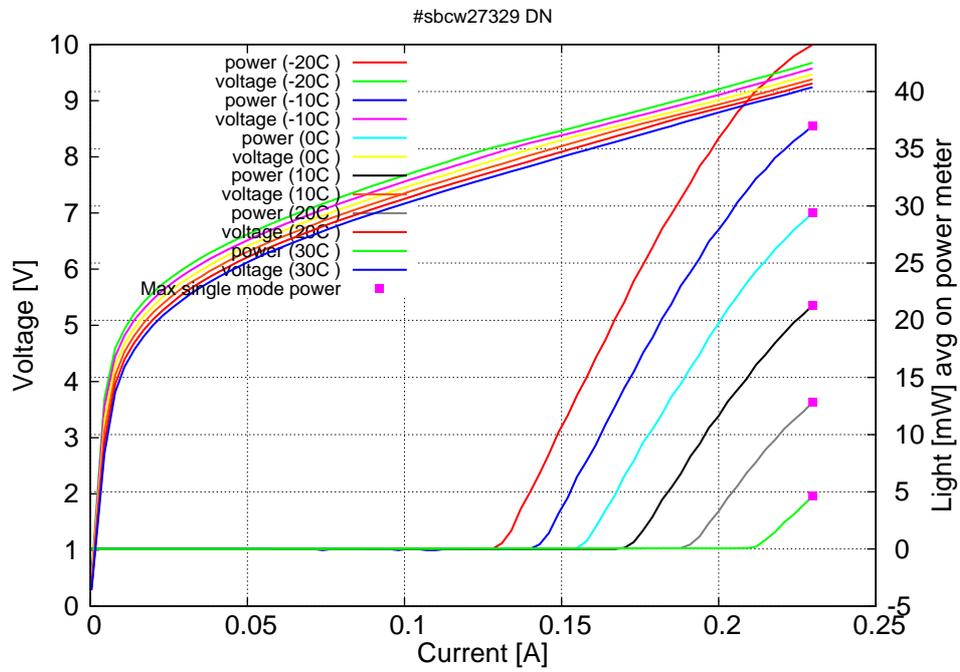


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.2V$ (2-wires measurements). Maximum operation current: 0.23A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

