

**Datasheet for #sbcw27334 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.

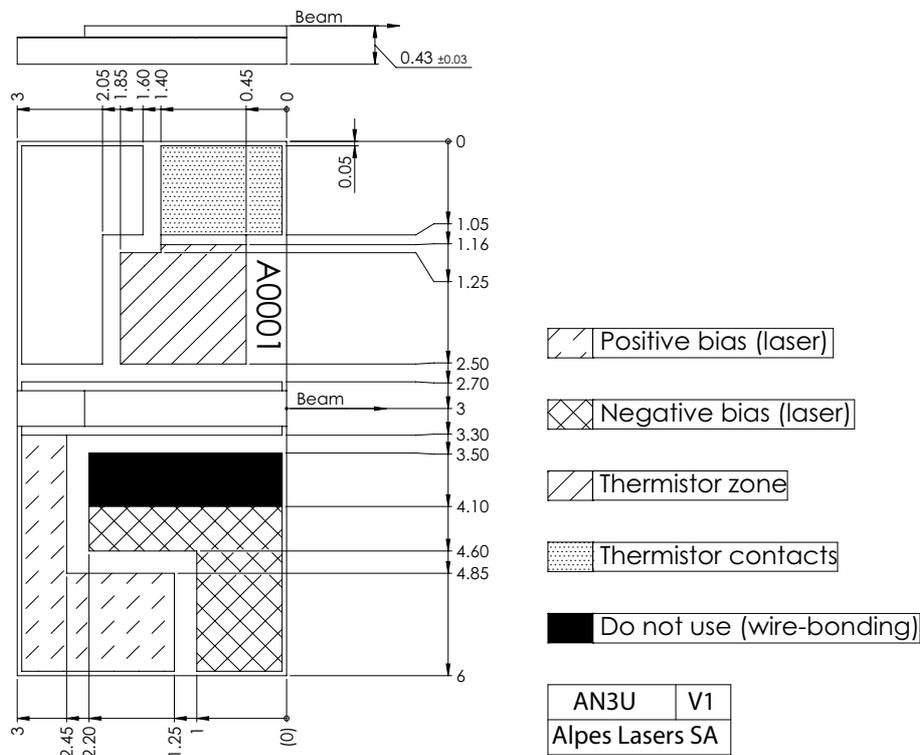


Figure 1: Mechanical and electrical interface for #sbcw27334 DN (please note that AlN submount numbering is A0Y69)

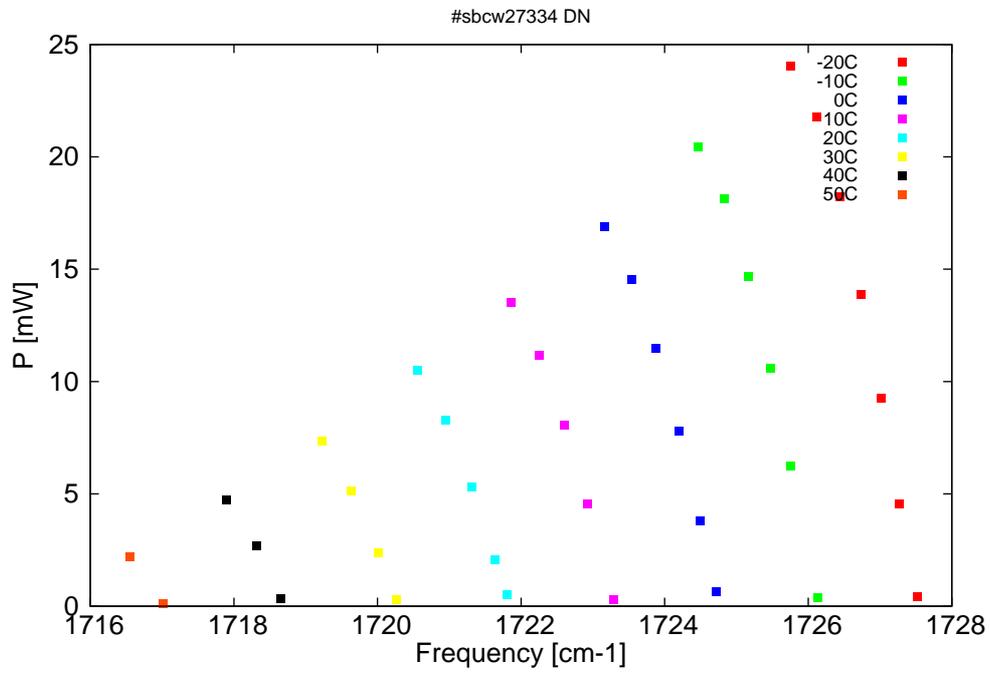


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

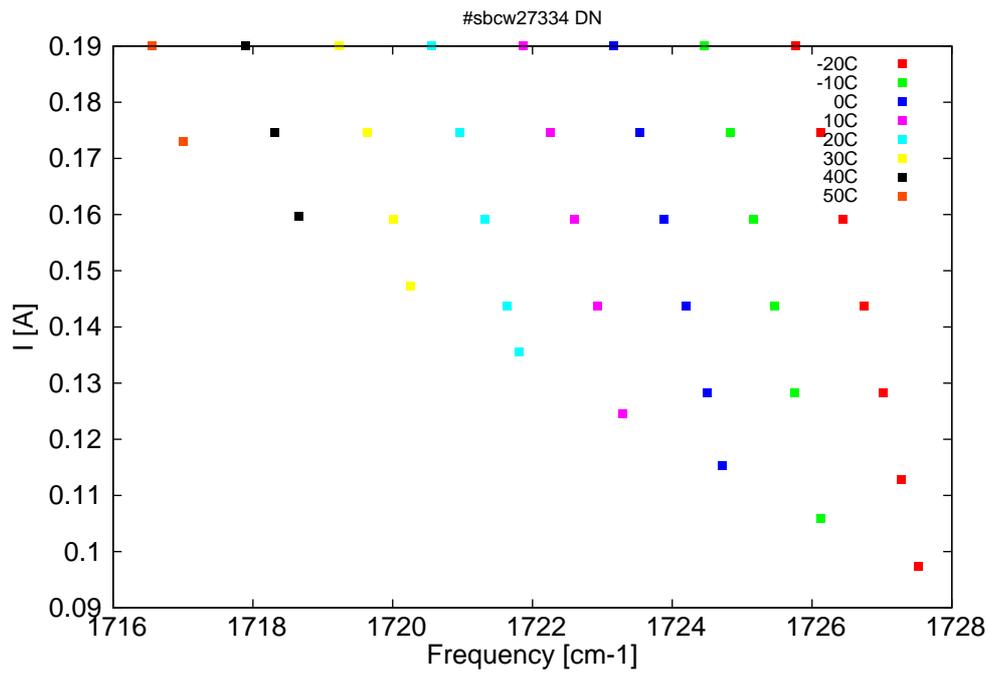


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5788.7	1727.5	0.4	-20	7.75	0.097
5789.5	1727.3	4.6	-20	7.99	0.113
5790.3	1727	9.3	-20	8.23	0.128
5791.3	1726.7	13.9	-20	8.48	0.144
5792.2	1726.4	18.2	-20	8.74	0.159
5793.3	1726.1	21.8	-20	9.02	0.175
5794.5	1725.8	24	-20	9.33	0.19
5793.3	1726.1	0.4	-10	7.82	0.106
5794.6	1725.8	6.2	-10	8.17	0.128
5795.5	1725.5	10.6	-10	8.41	0.144
5796.6	1725.2	14.7	-10	8.68	0.159
5797.7	1724.8	18.1	-10	8.95	0.175
5798.9	1724.5	20.5	-10	9.25	0.19
5798.1	1724.7	0.6	0	7.91	0.115
5798.8	1724.5	3.8	0	8.11	0.128
5799.8	1724.2	7.8	0	8.36	0.144
5800.9	1723.9	11.5	0	8.62	0.159
5802	1723.5	14.5	0	8.89	0.175
5803.3	1723.2	16.9	0	9.18	0.19
5802.9	1723.3	0.3	10	8.01	0.125
5804.1	1722.9	4.6	10	8.3	0.144
5805.2	1722.6	8.1	10	8.55	0.159
5806.4	1722.2	11.2	10	8.82	0.175
5807.7	1721.9	13.5	10	9.11	0.19
5807.9	1721.8	0.5	20	8.12	0.136
5808.4	1721.6	2.1	20	8.25	0.144
5809.5	1721.3	5.3	20	8.49	0.159
5810.7	1721	8.3	20	8.76	0.175
5812.1	1720.6	10.5	20	9.04	0.19
5813.1	1720.3	0.3	30	8.25	0.147
5813.9	1720	2.4	30	8.44	0.159
5815.2	1719.6	5.1	30	8.7	0.175
5816.6	1719.2	7.3	30	8.98	0.19
5818.5	1718.7	0.4	40	8.4	0.16
5819.7	1718.3	2.7	40	8.65	0.175
5821.1	1717.9	4.7	40	8.92	0.19
5824.1	1717	0.1	50	8.58	0.173
5825.6	1716.6	2.2	50	8.87	0.19

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

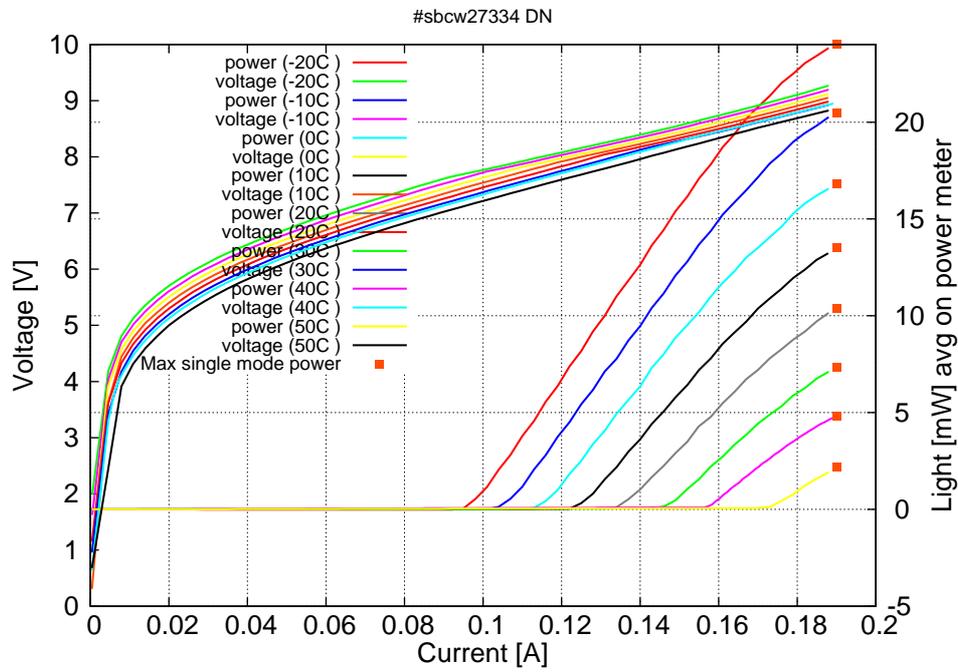


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.10A$  /  $V_{th}=7.7V$  (2-wires measurements). Maximum operation current: 0.19A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

