

Datasheet for #sbcw27324 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.

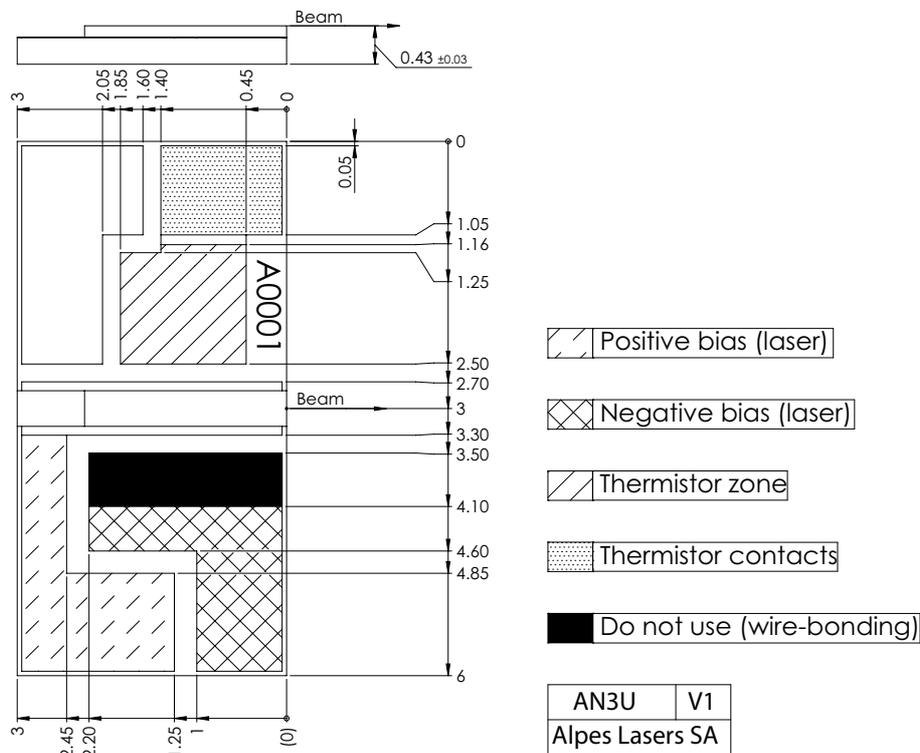


Figure 1: Mechanical and electrical interface for #sbcw27324 DN (please note that AlN submount numbering is A0YNN)

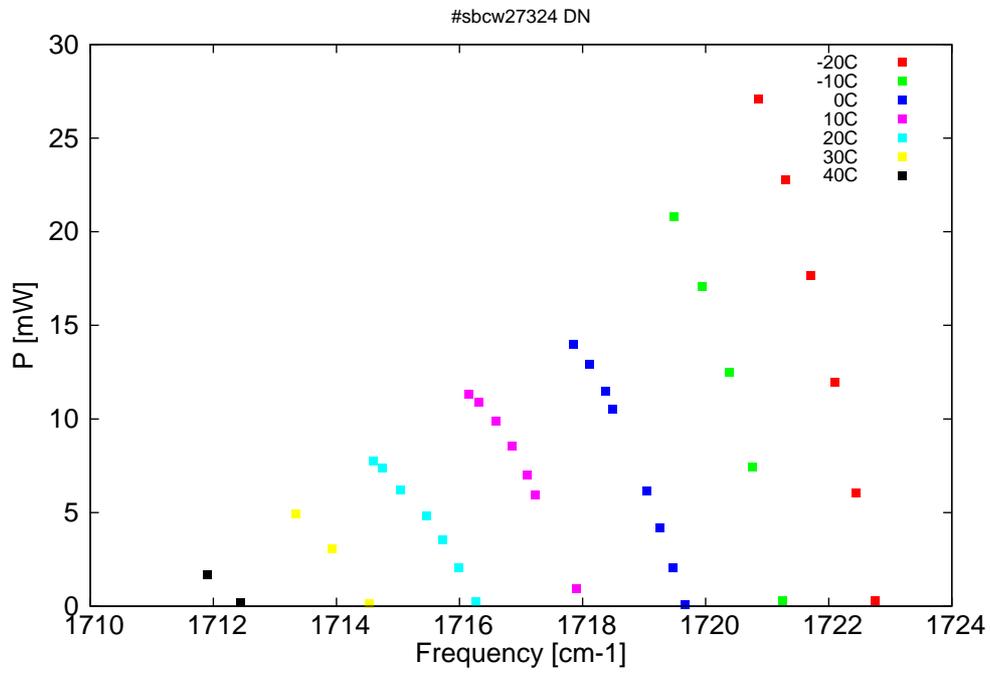


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

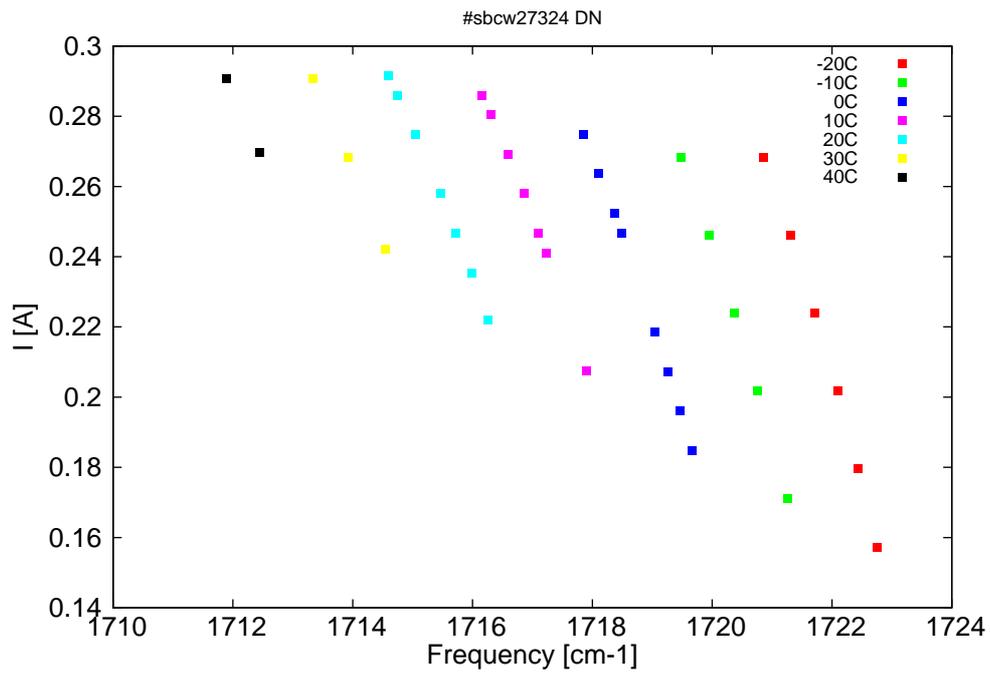


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5804.6	1722.8	0.3	-20	7.99	0.157
5805.7	1722.4	6.1	-20	8.23	0.18
5806.9	1722.1	12	-20	8.48	0.202
5808.2	1721.7	17.7	-20	8.73	0.224
5809.5	1721.3	22.8	-20	8.99	0.246
5811	1720.9	27.1	-20	9.28	0.268
5809.7	1721.3	0.3	-10	8.08	0.171
5811.4	1720.8	7.4	-10	8.41	0.202
5812.7	1720.4	12.5	-10	8.67	0.224
5814.1	1719.9	17.1	-10	8.92	0.246
5815.7	1719.5	20.8	-10	9.2	0.268
5815.1	1719.7	0.1	0	8.12	0.185
5815.8	1719.5	2.1	0	8.24	0.196
5816.4	1719.3	4.2	0	8.36	0.207
5817.2	1719.1	6.2	0	8.48	0.219
5819.1	1718.5	10.5	0	8.8	0.247
5819.5	1718.4	11.5	0	8.86	0.252
5820.4	1718.1	12.9	0	9	0.264
5821.2	1717.8	14	0	9.13	0.275
5821	1717.9	0.9	10	8.3	0.207
5823.3	1717.2	5.9	10	8.67	0.241
5823.8	1717.1	7	10	8.73	0.247
5824.6	1716.9	8.6	10	8.86	0.258
5825.5	1716.6	9.9	10	9	0.269
5826.5	1716.3	10.9	10	9.14	0.28
5827	1716.2	11.3	10	9.21	0.286
5826.6	1716.3	0.2	20	8.4	0.222
5827.6	1716	2	20	8.55	0.235
5828.4	1715.7	3.5	20	8.68	0.247
5829.3	1715.5	4.8	20	8.81	0.258
5830.7	1715	6.2	20	9.01	0.275
5831.8	1714.7	7.4	20	9.15	0.286
5832.3	1714.6	7.7	20	9.22	0.292
5832.5	1714.5	0.1	30	8.67	0.242
5834.6	1713.9	3	30	8.98	0.268
5836.6	1713.3	4.9	30	9.27	0.291
5839.6	1712.4	0.2	40	8.96	0.27
5841.5	1711.9	1.7	40	9.23	0.291

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

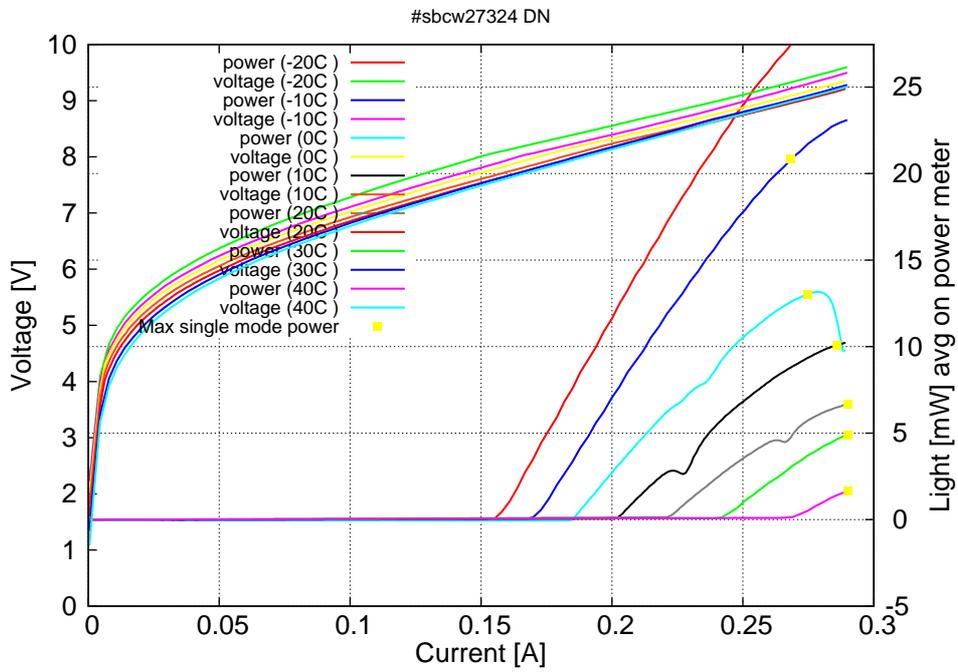


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.275A between -20C and 0C, 0.29A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

