

Datasheet for #sbcw24032 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.

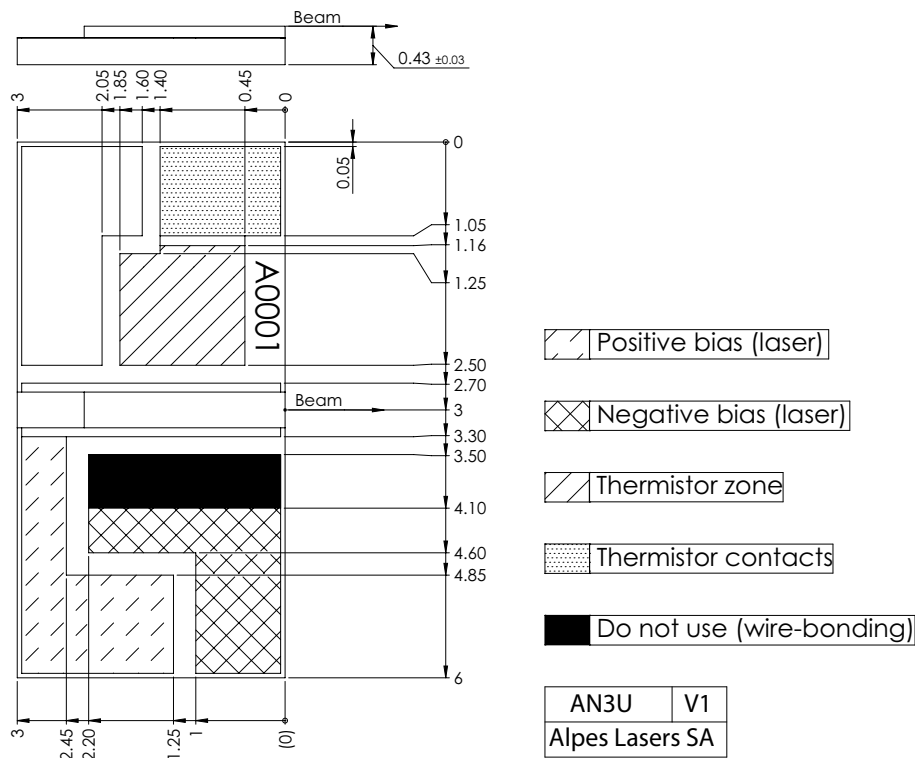


Figure 1: Mechanical and electrical interface for #sbcw24032 DN (please note that AlN submount numbering is A0Z46)

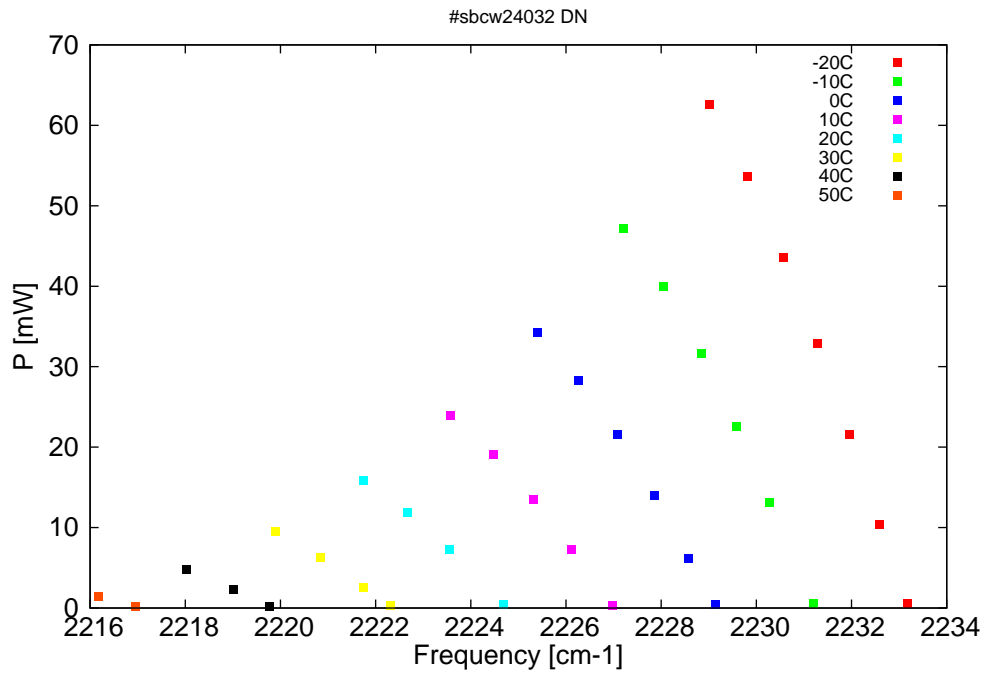


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

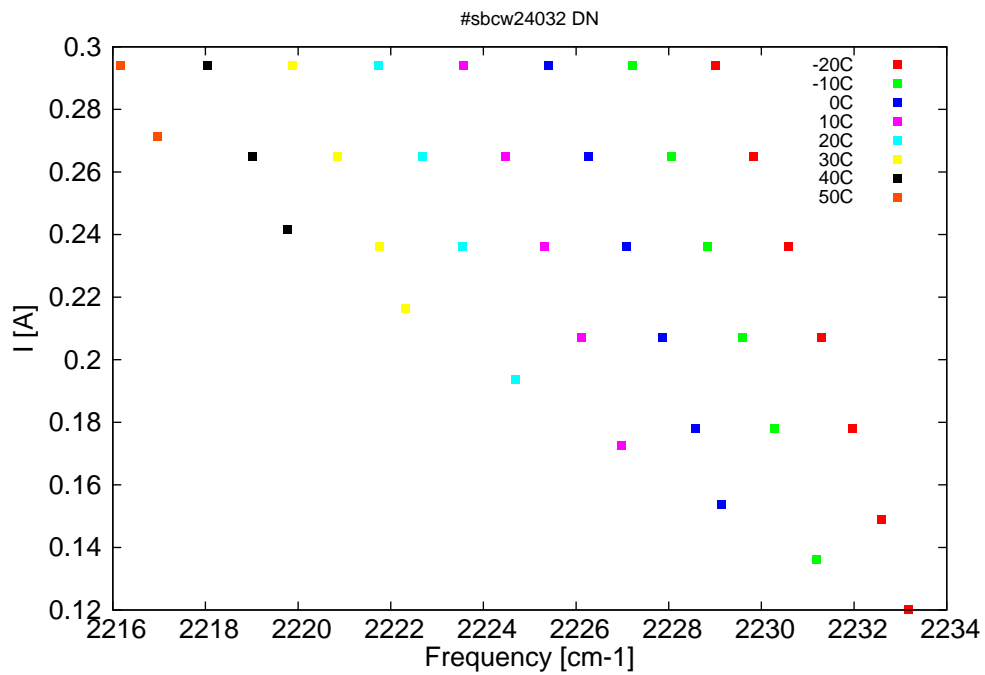


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4477.9	2233.2	0.6	-20	8.13	0.12
4479.1	2232.6	10.4	-20	8.33	0.149
4480.4	2232	21.5	-20	8.52	0.178
4481.7	2231.3	32.8	-20	8.71	0.207
4483.1	2230.6	43.6	-20	8.89	0.236
4484.7	2229.8	53.7	-20	9.07	0.265
4486.3	2229	62.5	-20	9.25	0.294
4481.9	2231.2	0.5	-10	8.2	0.136
4483.7	2230.3	13.1	-10	8.48	0.178
4485.1	2229.6	22.6	-10	8.67	0.207
4486.6	2228.8	31.7	-10	8.85	0.236
4488.2	2228	39.9	-10	9.04	0.265
4489.9	2227.2	47.2	-10	9.22	0.294
4486	2229.1	0.4	0	8.28	0.154
4487.2	2228.6	6.2	0	8.44	0.178
4488.6	2227.9	14	0	8.63	0.207
4490.2	2227.1	21.5	0	8.82	0.236
4491.8	2226.3	28.3	0	9.01	0.265
4493.6	2225.4	34.3	0	9.2	0.294
4490.4	2227	0.3	10	8.37	0.173
4492.1	2226.1	7.3	10	8.6	0.207
4493.7	2225.3	13.5	10	8.79	0.236
4495.4	2224.5	19.1	10	8.98	0.265
4497.3	2223.6	23.9	10	9.17	0.294
4495	2224.7	0.4	20	8.48	0.194
4497.3	2223.5	7.3	20	8.76	0.236
4499.1	2222.7	11.9	20	8.95	0.265
4501	2221.7	15.8	20	9.15	0.294
4499.8	2222.3	0.3	30	8.61	0.216
4501	2221.8	2.6	30	8.74	0.236
4502.8	2220.9	6.3	30	8.93	0.265
4504.7	2219.9	9.5	30	9.13	0.294
4505	2219.8	0.2	40	8.76	0.242
4506.5	2219	2.3	40	8.92	0.265
4508.5	2218	4.8	40	9.11	0.294
4510.7	2217	0.2	50	8.96	0.271
4512.3	2216.2	1.5	50	9.11	0.294

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

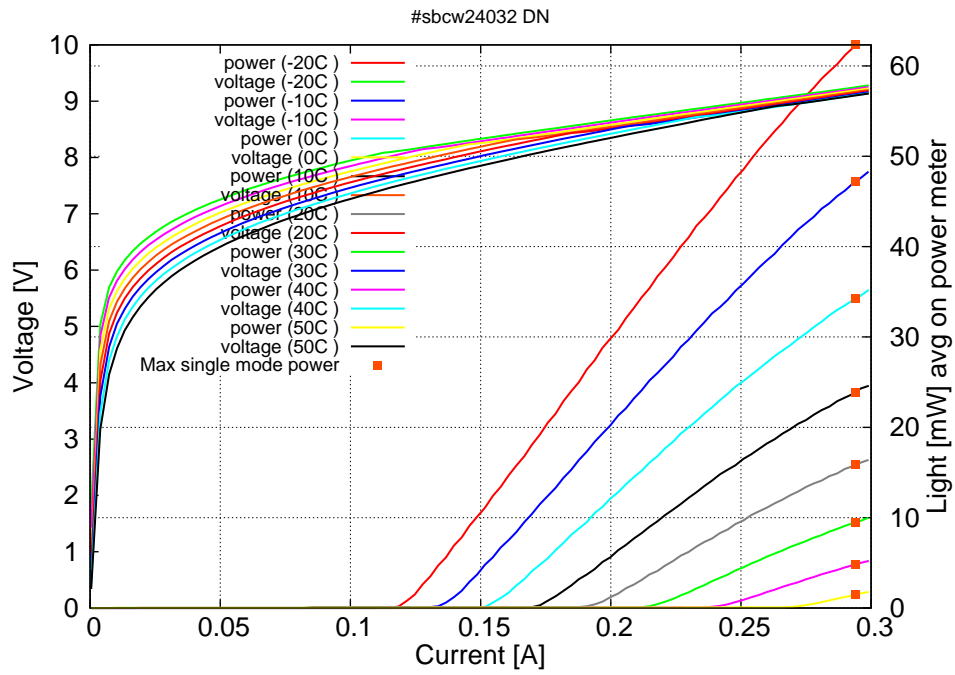


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.12A$ / $V_{th}=8.2V$ (2-wires measurements). Maximum operation current: 0.30A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

