

Datasheet for #sbcw24479 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.

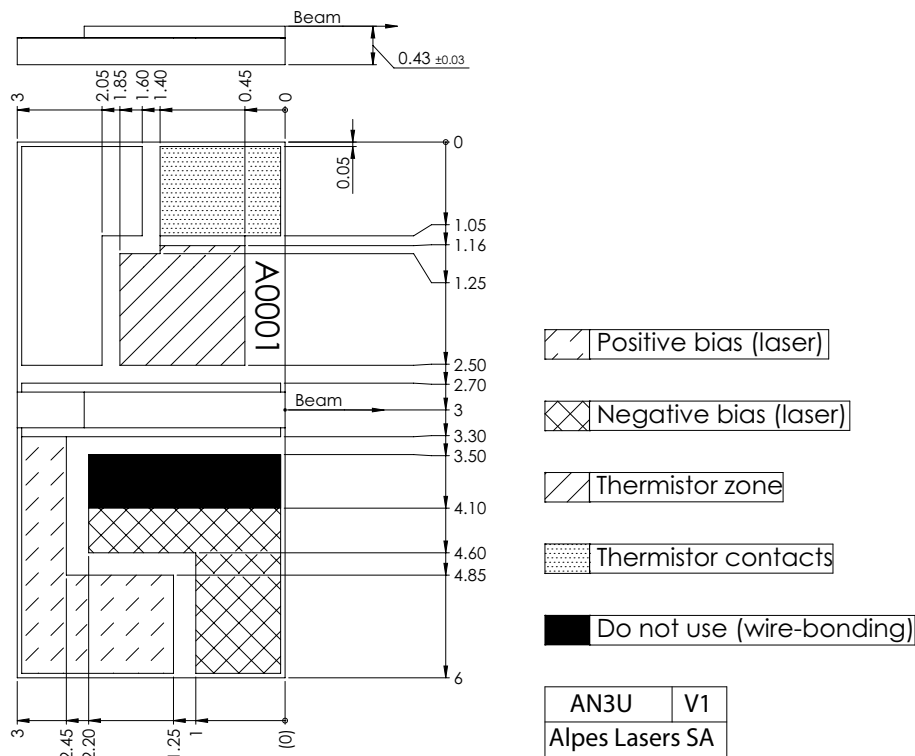


Figure 1: Mechanical and electrical interface for #sbcw24479 DN (please note that AlN submount numbering is A0ZUT)

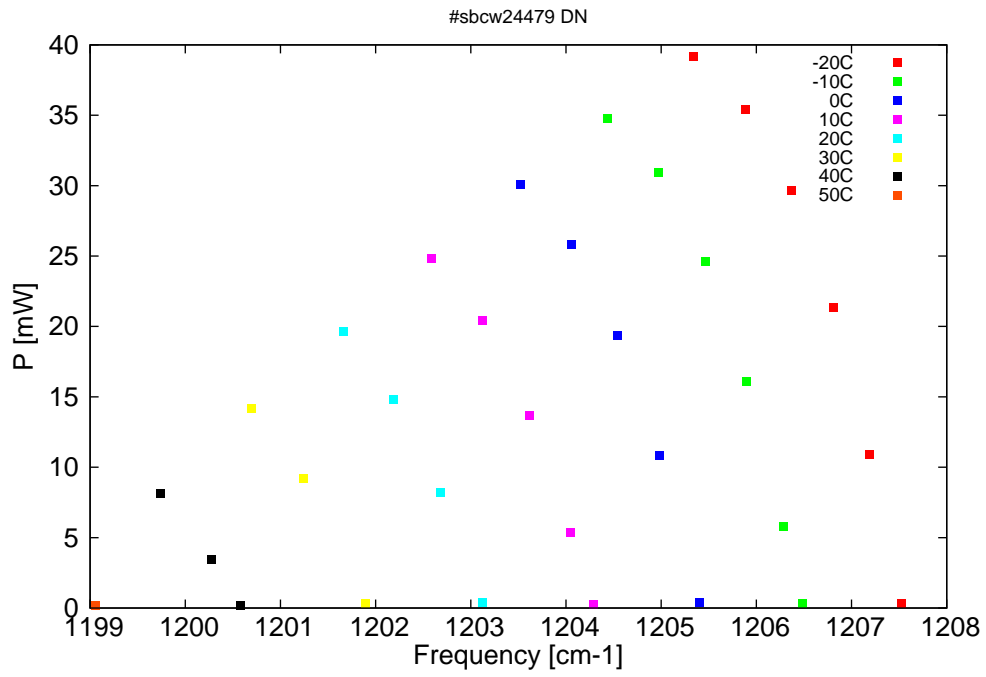


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

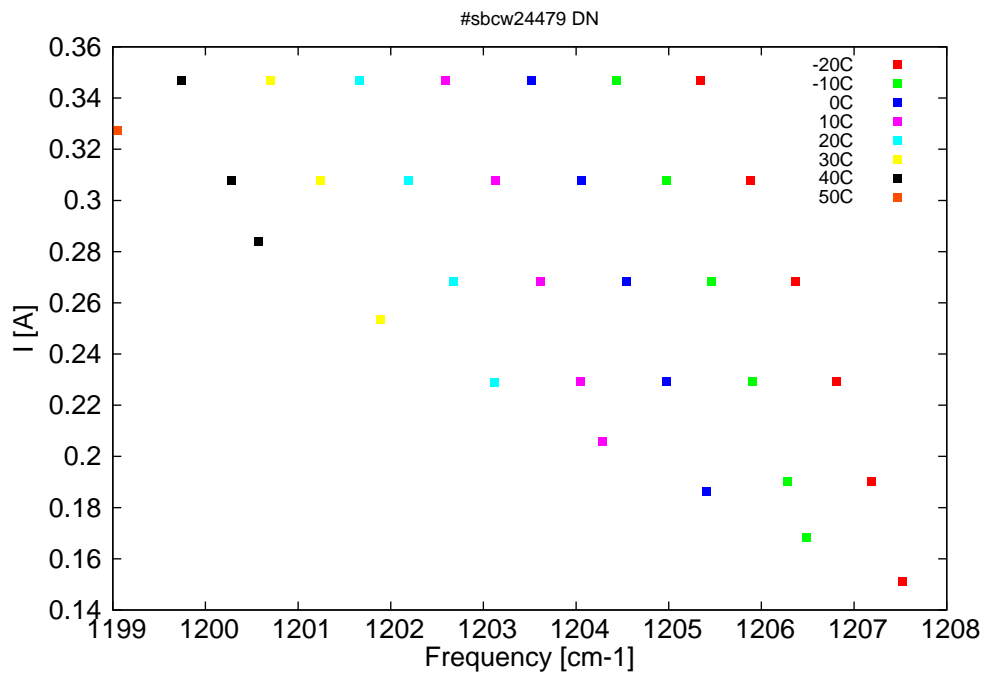


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8281.4	1207.5	0.4	-20	8.29	0.151
8283.7	1207.2	10.9	-20	8.89	0.19
8286.3	1206.8	21.3	-20	9.52	0.229
8289.3	1206.4	29.7	-20	10.16	0.269
8292.7	1205.9	35.4	-20	10.8	0.308
8296.4	1205.3	39.2	-20	11.41	0.347
8288.6	1206.5	0.3	-10	8.38	0.168
8289.9	1206.3	5.8	-10	8.7	0.19
8292.6	1205.9	16.1	-10	9.28	0.229
8295.5	1205.5	24.6	-10	9.88	0.269
8298.9	1205	30.9	-10	10.48	0.308
8302.7	1204.4	34.8	-10	11.06	0.347
8296	1205.4	0.4	0	8.47	0.186
8298.9	1205	10.9	0	9.07	0.229
8301.9	1204.5	19.3	0	9.63	0.269
8305.3	1204.1	25.8	0	10.19	0.308
8309	1203.5	30.1	0	10.74	0.347
8303.7	1204.3	0.3	10	8.58	0.206
8305.3	1204	5.3	10	8.89	0.229
8308.3	1203.6	13.7	10	9.42	0.269
8311.7	1203.1	20.4	10	9.94	0.308
8315.4	1202.6	24.8	10	10.45	0.347
8311.7	1203.1	0.4	20	8.71	0.229
8314.8	1202.7	8.2	20	9.21	0.269
8318.1	1202.2	14.8	20	9.7	0.308
8321.8	1201.7	19.6	20	10.19	0.347
8320.2	1201.9	0.3	30	8.84	0.253
8324.7	1201.2	9.2	30	9.5	0.308
8328.5	1200.7	14.2	30	9.96	0.347
8329.3	1200.6	0.2	40	9.03	0.284
8331.4	1200.3	3.5	40	9.31	0.308
8335.1	1199.7	8.1	40	9.75	0.347
8339.9	1199.1	0.2	50	9.35	0.327

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

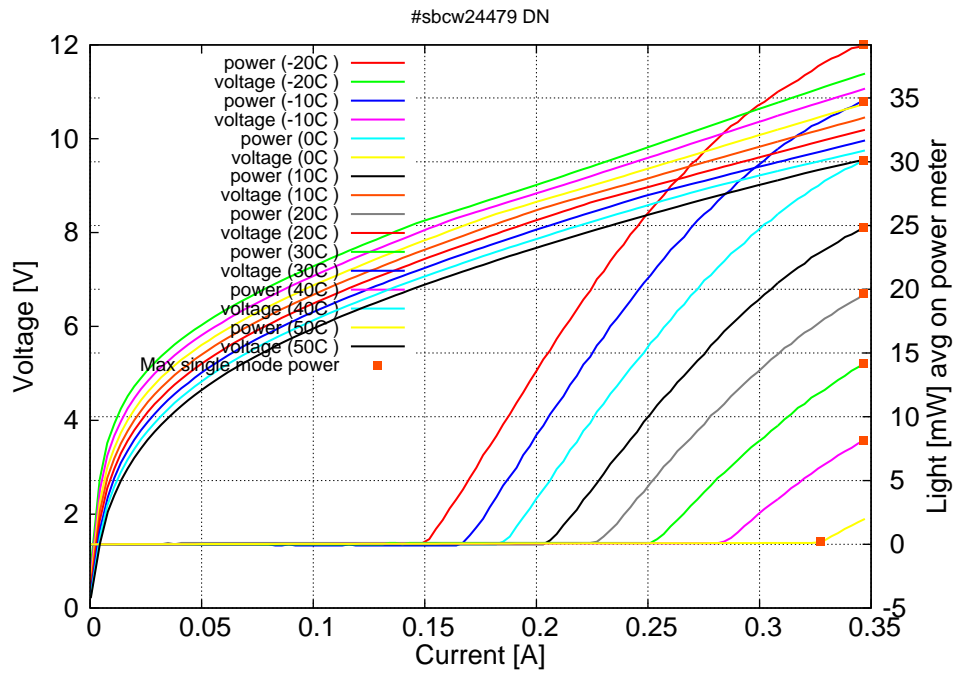


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.4V$ (2-wires measurements). Maximum operation current: 0.35A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

