

Datasheet for #sbcw27099 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 #sbcw27099 DN (please note that AlN submount numbering is A0UVW)

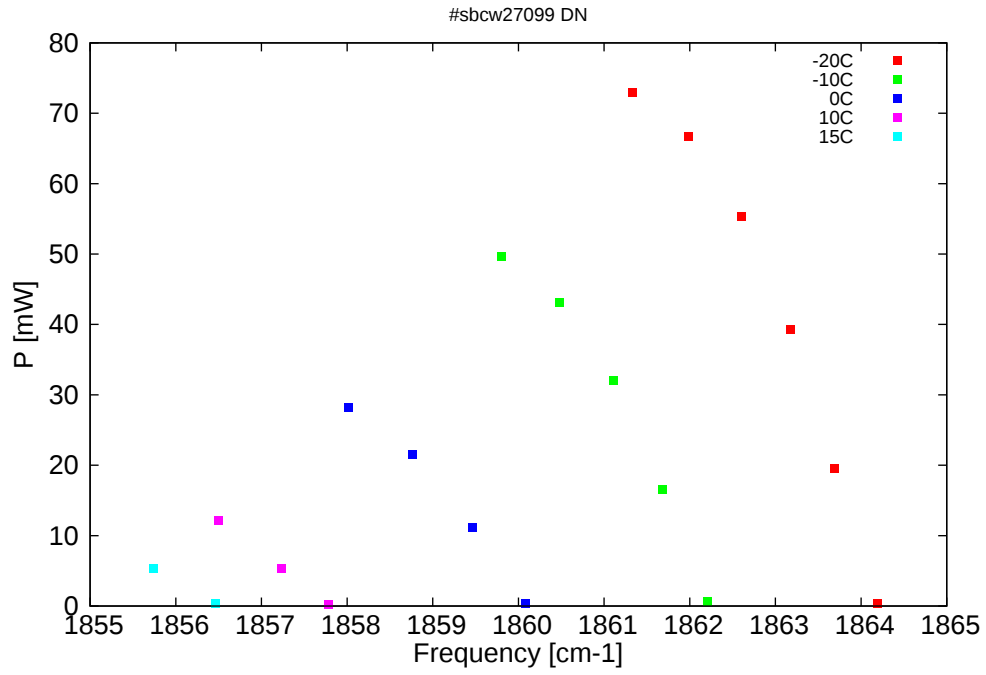


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

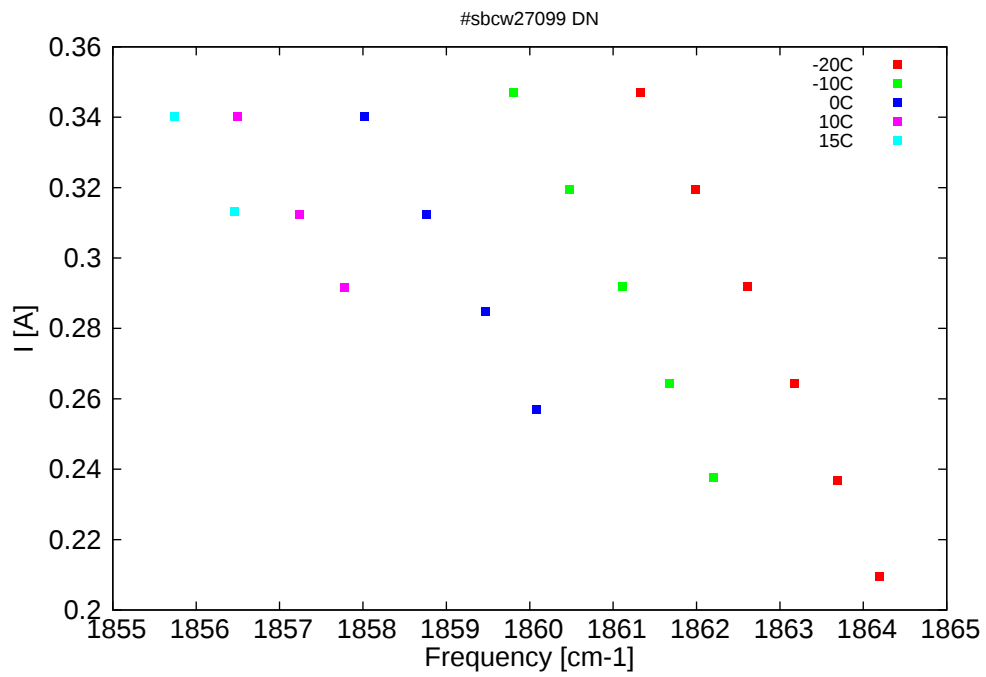


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5364.3	1864.2	0.4	-20	9.16	0.209
5365.7	1863.7	19.5	-20	9.4	0.237
5367.2	1863.2	39.2	-20	9.64	0.264
5368.8	1862.6	55.4	-20	9.88	0.292
5370.6	1862	66.8	-20	10.12	0.319
5372.5	1861.3	73	-20	10.35	0.347
5370	1862.2	0.7	-10	9.34	0.238
5371.5	1861.7	16.6	-10	9.55	0.264
5373.1	1861.1	32	-10	9.77	0.292
5375	1860.5	43.2	-10	10	0.319
5376.9	1859.8	49.6	-10	10.21	0.347
5376.1	1860.1	0.4	0	9.19	0.257
5377.9	1859.5	11.2	0	9.39	0.285
5379.9	1858.8	21.5	0	9.59	0.312
5382.1	1858	28.2	0	9.8	0.34
5382.8	1857.8	0.3	10	9.37	0.292
5384.3	1857.2	5.3	10	9.52	0.312
5386.5	1856.5	12.2	10	9.72	0.34
5386.6	1856.5	0.3	15	9.49	0.313
5388.7	1855.7	5.4	15	9.68	0.34

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

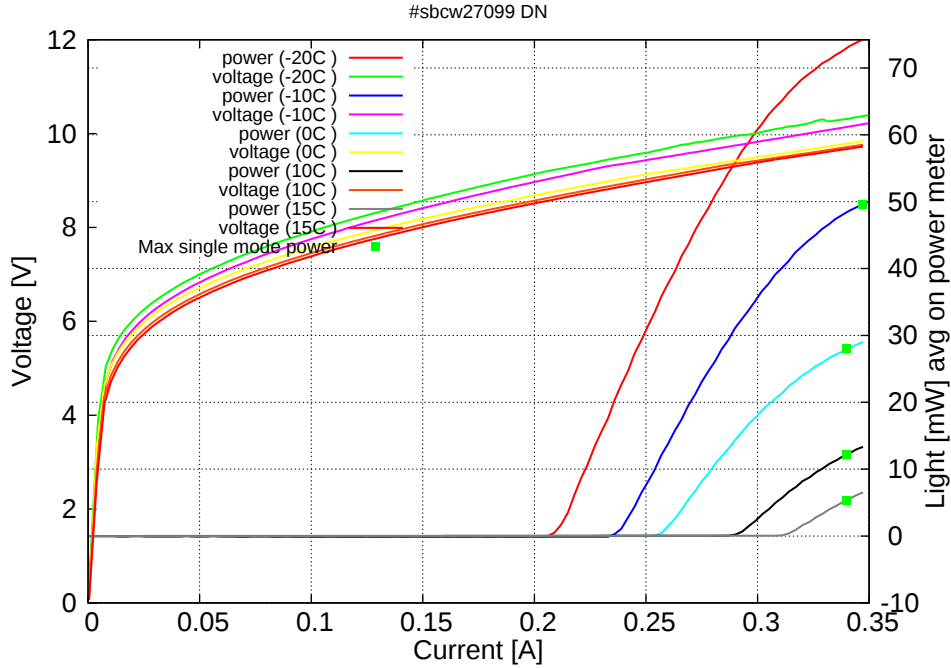


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.35A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

