

Datasheet for #sbcw27351 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 #sbcw27351 DN (please note that AlN submount numbering is A0YL7)

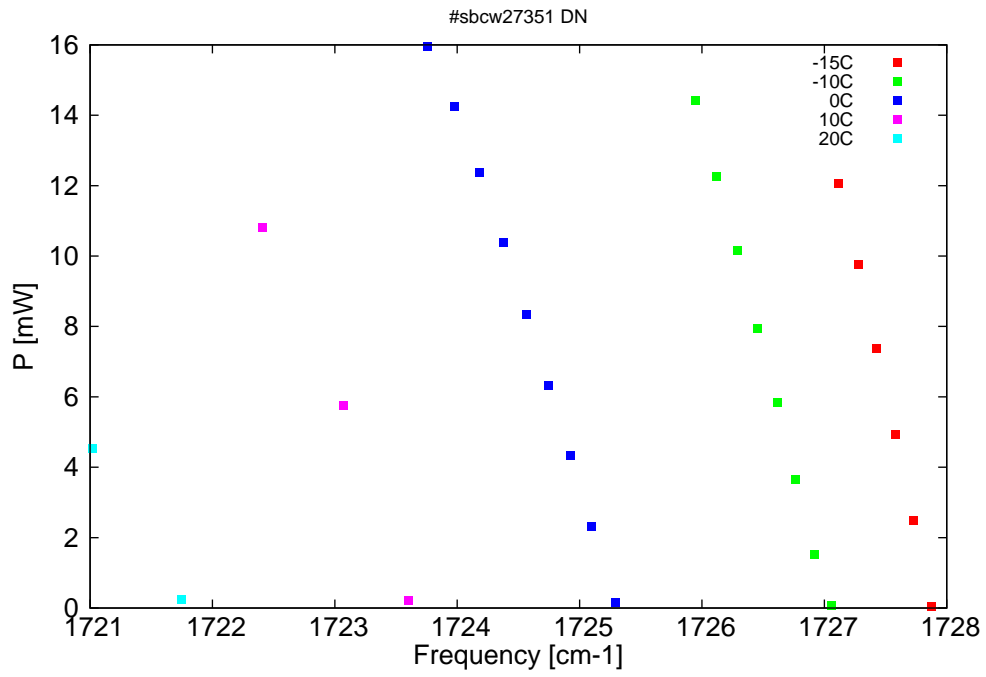


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

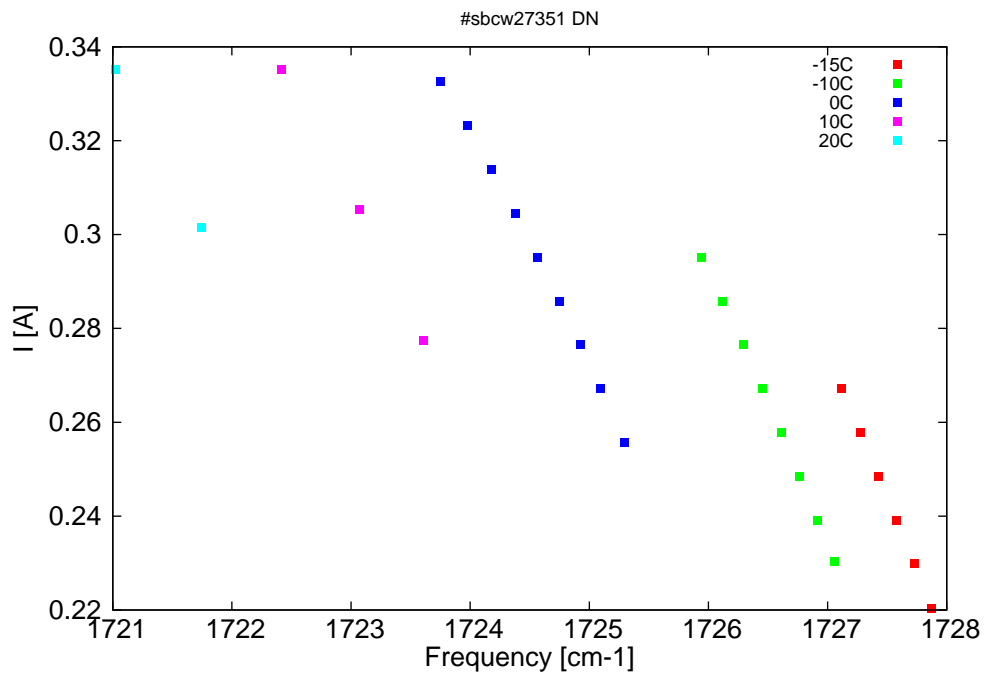


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5787.5	1727.9	0.1	-15	8.08	0.22
5787.9	1727.7	2.5	-15	8.17	0.23
5788.4	1727.6	4.9	-15	8.25	0.239
5788.9	1727.4	7.4	-15	8.34	0.249
5789.5	1727.3	9.8	-15	8.43	0.258
5790	1727.1	12.1	-15	8.53	0.267
5790.2	1727.1	0.1	-10	8.15	0.23
5790.7	1726.9	1.5	-10	8.24	0.239
5791.2	1726.8	3.7	-10	8.33	0.249
5791.7	1726.6	5.8	-10	8.42	0.258
5792.2	1726.5	7.9	-10	8.51	0.267
5792.8	1726.3	10.1	-10	8.6	0.277
5793.3	1726.1	12.3	-10	8.7	0.286
5793.9	1725.9	14.4	-10	8.8	0.295
5796.1	1725.3	0.2	0	8.36	0.256
5796.8	1725.1	2.3	0	8.47	0.267
5797.4	1724.9	4.3	0	8.57	0.277
5798	1724.7	6.3	0	8.67	0.286
5798.6	1724.6	8.3	0	8.77	0.295
5799.2	1724.4	10.4	0	8.87	0.305
5799.9	1724.2	12.4	0	8.97	0.314
5800.6	1724	14.2	0	9.08	0.323
5801.3	1723.8	16	0	9.19	0.333
5801.8	1723.6	0.2	10	8.5	0.277
5803.6	1723.1	5.8	10	8.79	0.305
5805.8	1722.4	10.8	10	9.13	0.335
5808.1	1721.7	0.2	20	8.72	0.302
5810.5	1721	4.5	20	9.1	0.335

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

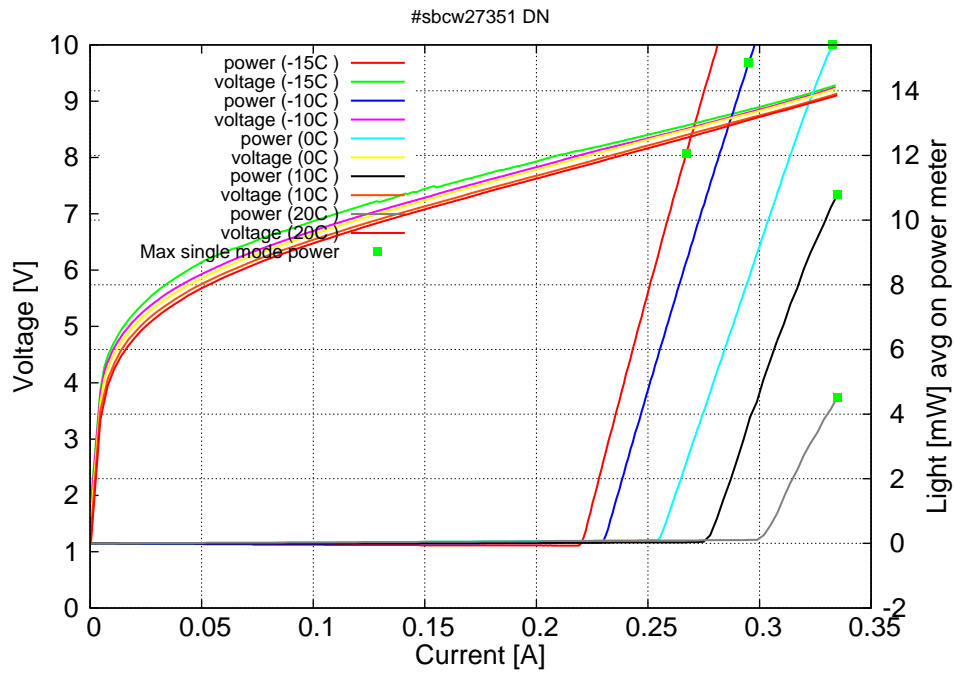


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -15C: $I_{th}=0.22A$ / $V_{th}=8.1V$ (2-wires measurements). Maximum operation current: 0.27A at -15C, 0.295A at -10C, 0.335A between 0C and 20C.

Figure 3: spectra at different temperatures for various DC currents

