

Datasheet for #sbcw24817 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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 #sbcw24817 DN

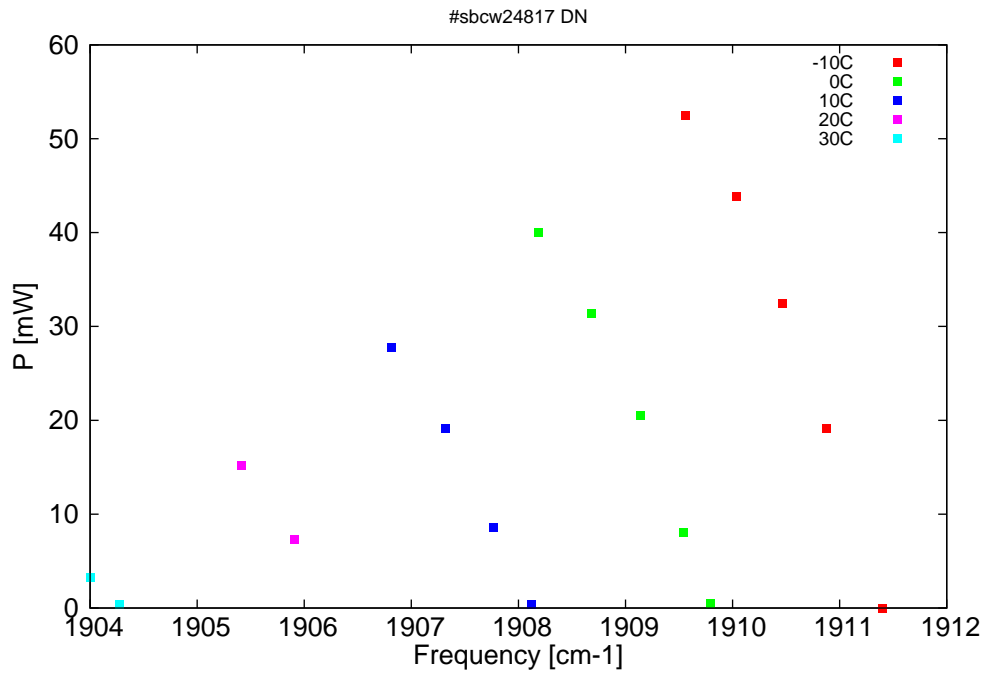


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

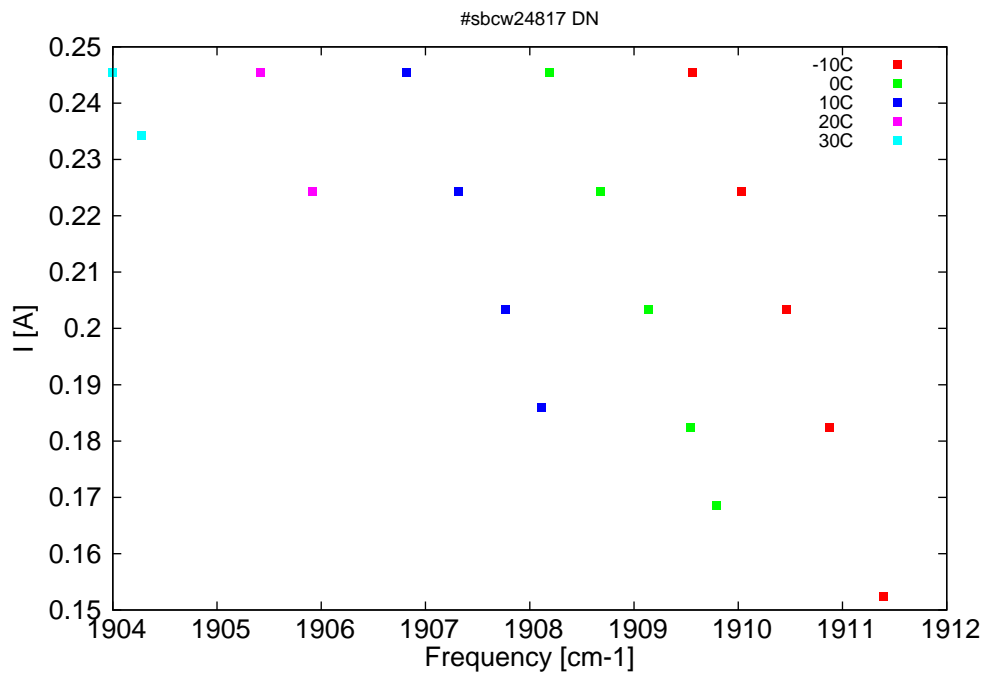


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5231.8	1911.4	0	-10	8.03	0.152
5233.2	1910.9	19.1	-10	8.26	0.182
5234.3	1910.5	32.5	-10	8.45	0.203
5235.5	1910	43.9	-10	8.65	0.224
5236.8	1909.6	52.5	-10	8.87	0.245
5236.2	1909.8	0.5	0	8.11	0.169
5236.8	1909.5	8.1	0	8.22	0.182
5238	1909.1	20.5	0	8.4	0.203
5239.2	1908.7	31.3	0	8.6	0.224
5240.6	1908.2	40	0	8.81	0.245
5240.8	1908.1	0.4	10	8.21	0.186
5241.7	1907.8	8.6	10	8.35	0.203
5243	1907.3	19.1	10	8.54	0.224
5244.3	1906.8	27.8	10	8.74	0.245
5246.8	1905.9	7.3	20	8.48	0.224
5248.2	1905.4	15.2	20	8.68	0.245
5251.4	1904.3	0.4	30	8.52	0.234
5252.1	1904	3.3	30	8.62	0.245

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

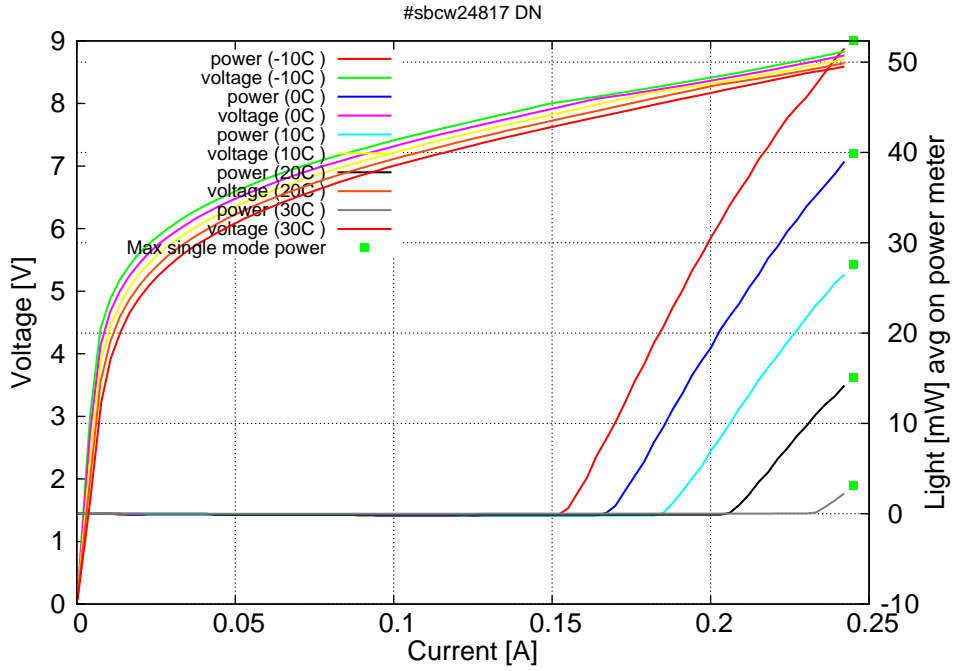


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.15A$ / $V_{th}=8.0V$ (2-wires measurements). Maximum operation current: 0.245A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

