

**Datasheet for #sbcw24690 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 #sbcw24690 DN

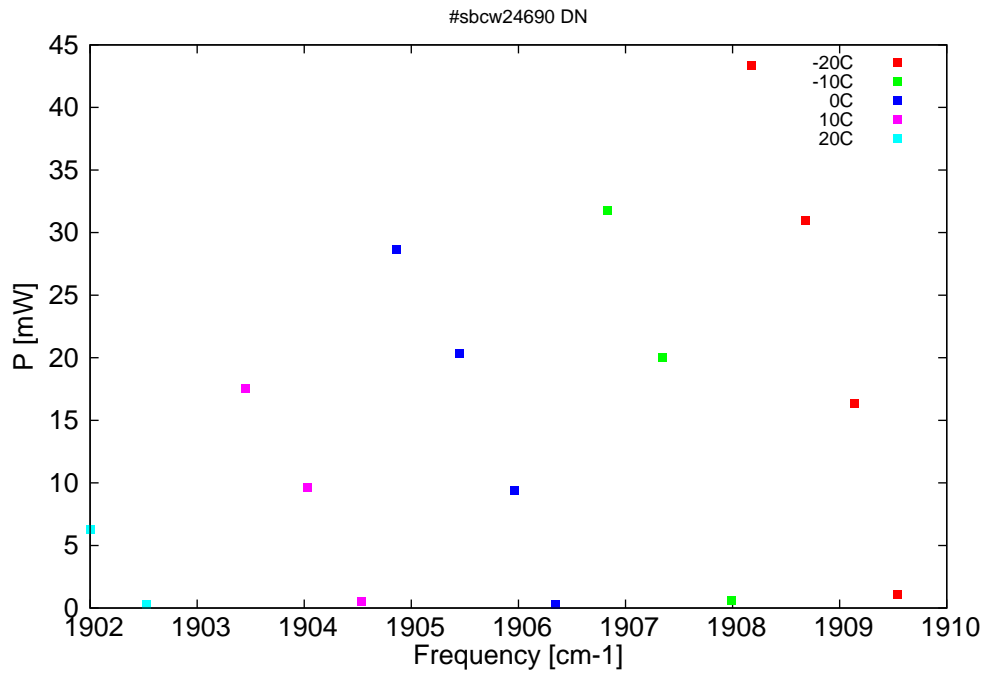


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

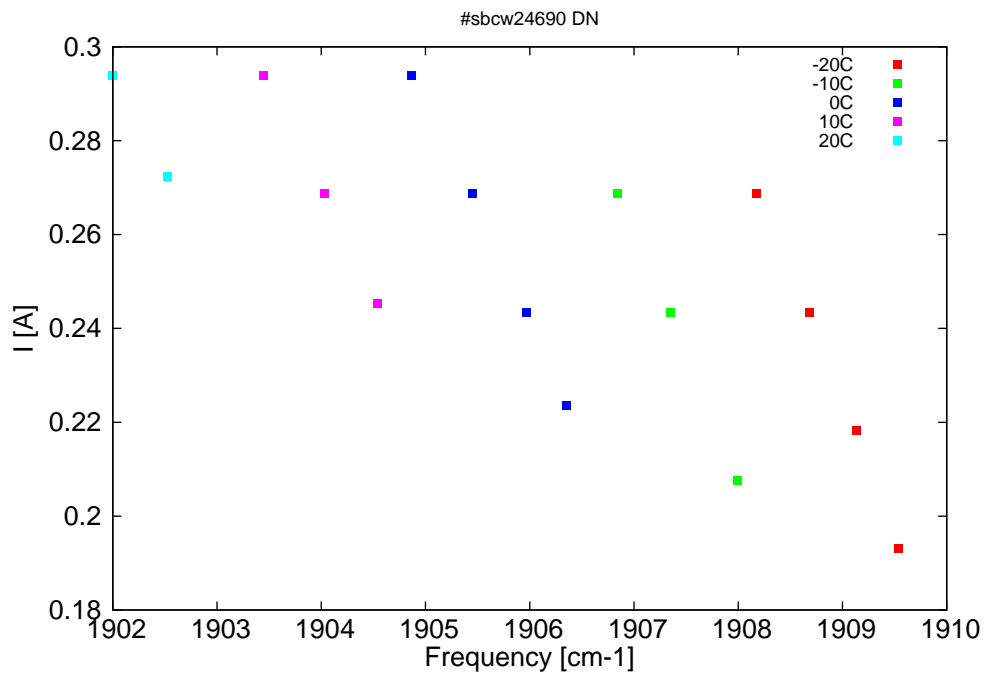


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5236.9	1909.5	1.1	-20	8.18	0.193
5238	1909.1	16.4	-20	8.36	0.218
5239.2	1908.7	31	-20	8.55	0.244
5240.6	1908.2	43.4	-20	8.76	0.269
5241.1	1908	0.6	-10	8.23	0.208
5242.9	1907.3	20	-10	8.5	0.244
5244.3	1906.8	31.8	-10	8.71	0.269
5245.6	1906.3	0.3	0	8.3	0.224
5246.7	1906	9.4	0	8.45	0.244
5248.1	1905.4	20.4	0	8.66	0.269
5249.7	1904.9	28.7	0	8.88	0.294
5250.6	1904.5	0.5	10	8.42	0.245
5252	1904	9.6	10	8.6	0.269
5253.6	1903.4	17.5	10	8.81	0.294
5256.2	1902.5	0.3	20	8.57	0.272
5257.6	1902	6.2	20	8.75	0.294

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

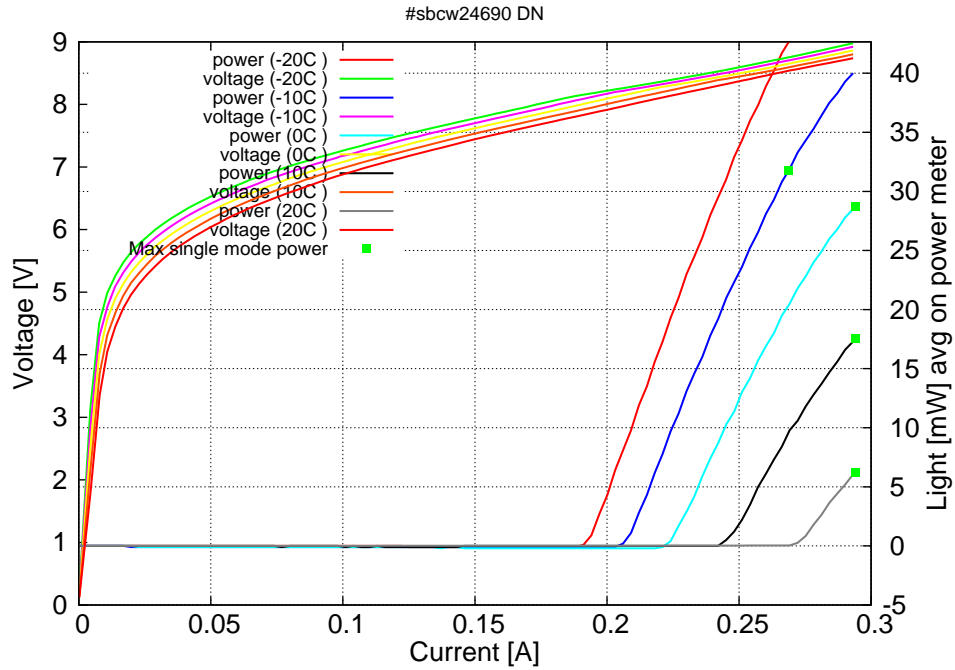


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.19A$  /  $V_{th}=8.1V$  (2-wires measurements). Maximum operation current: 0.27A between -20C and -10C, 0.295A between 0C and 20C.

Figure 3: spectra at different temperatures for various DC currents

