

Datasheet for #sbcw25491 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 #sbcw25491 DN

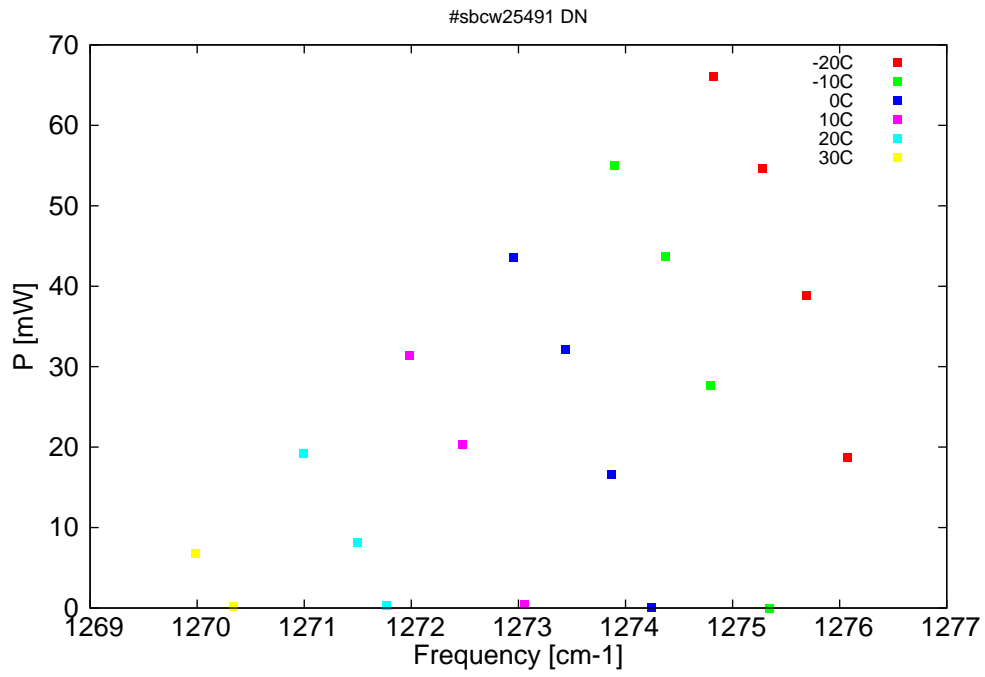


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

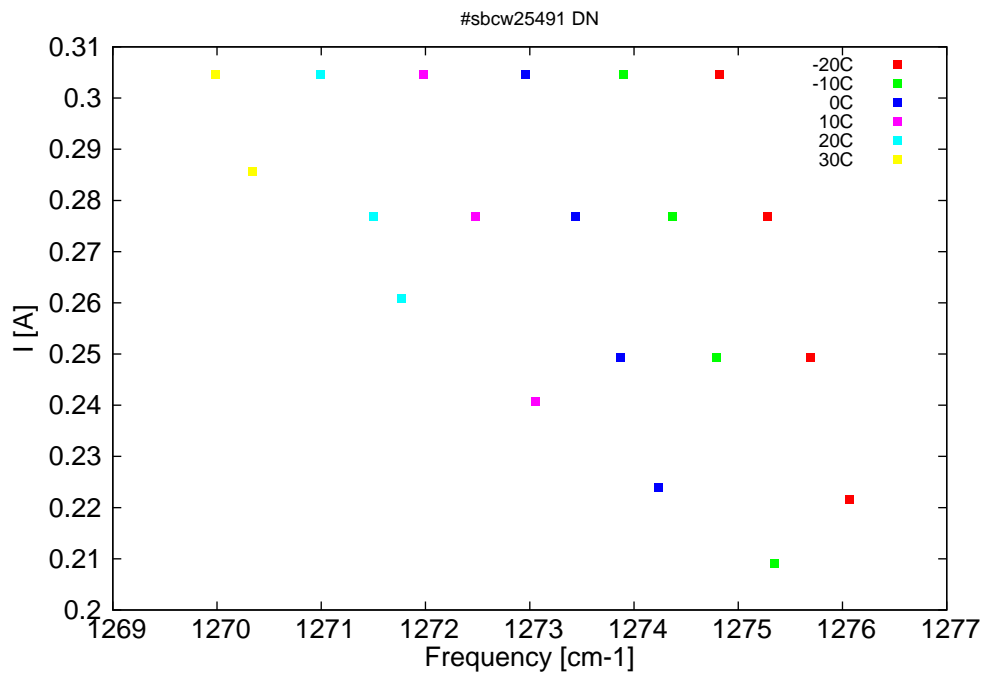


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7836.6	1276.1	18.7	-20	9.26	0.222
7838.9	1275.7	38.8	-20	9.48	0.249
7841.4	1275.3	54.7	-20	9.71	0.277
7844.3	1274.8	66.1	-20	9.94	0.305
7841	1275.3	0	-10	9.06	0.209
7844.4	1274.8	27.7	-10	9.39	0.249
7847	1274.4	43.6	-10	9.61	0.277
7849.9	1273.9	55	-10	9.84	0.305
7847.8	1274.2	0.1	0	9.09	0.224
7850.1	1273.9	16.6	0	9.3	0.249
7852.8	1273.4	32.2	0	9.52	0.277
7855.7	1273	43.6	0	9.75	0.305
7855.1	1273.1	0.5	10	9.14	0.241
7858.7	1272.5	20.3	10	9.44	0.277
7861.7	1272	31.4	10	9.67	0.305
7863.1	1271.8	0.4	20	9.23	0.261
7864.7	1271.5	8.1	20	9.36	0.277
7867.9	1271	19.3	20	9.59	0.305
7871.9	1270.3	0.2	30	9.37	0.286
7874.1	1270	6.8	30	9.53	0.305

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

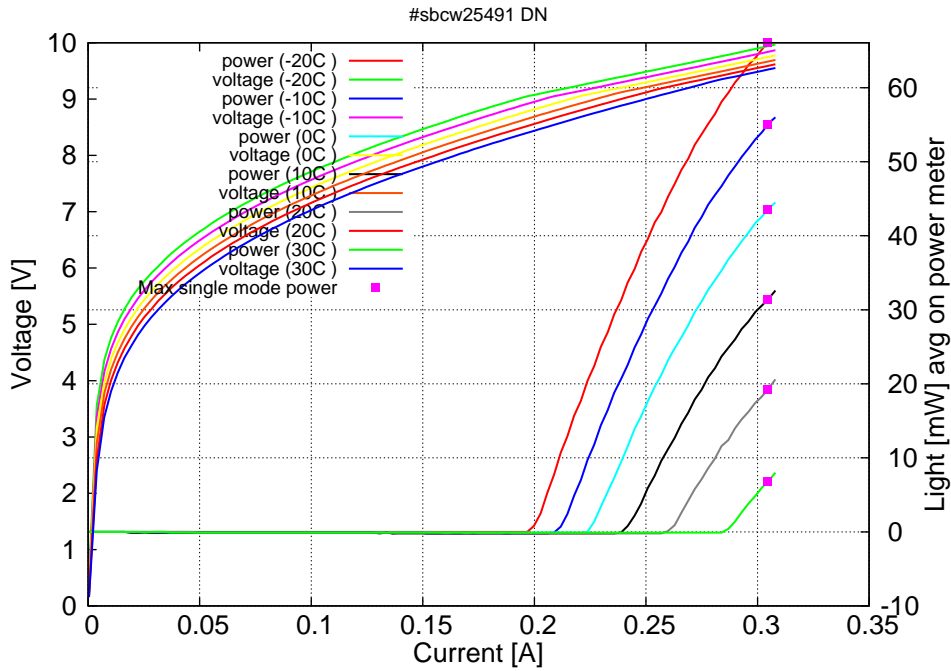


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.20A$ / $V_{th}=9.0V$ (2-wires measurements). Maximum operation current: 0.31A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

