

Datasheet for #sbcw25624 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 #sbcw25624 DN (please note that AlN submount numbering is A1143)

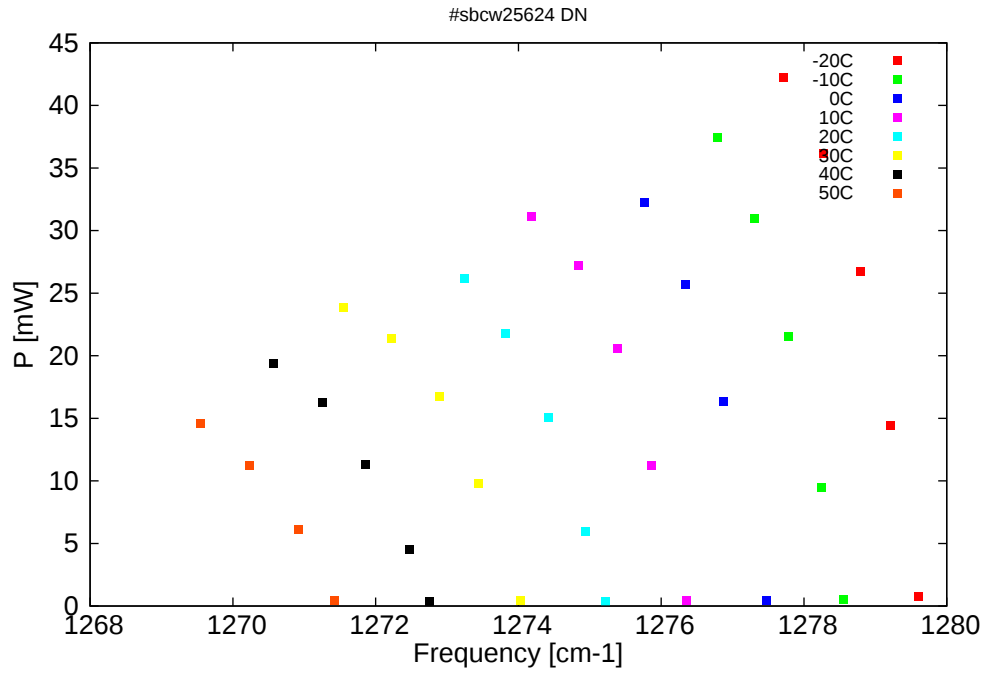


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

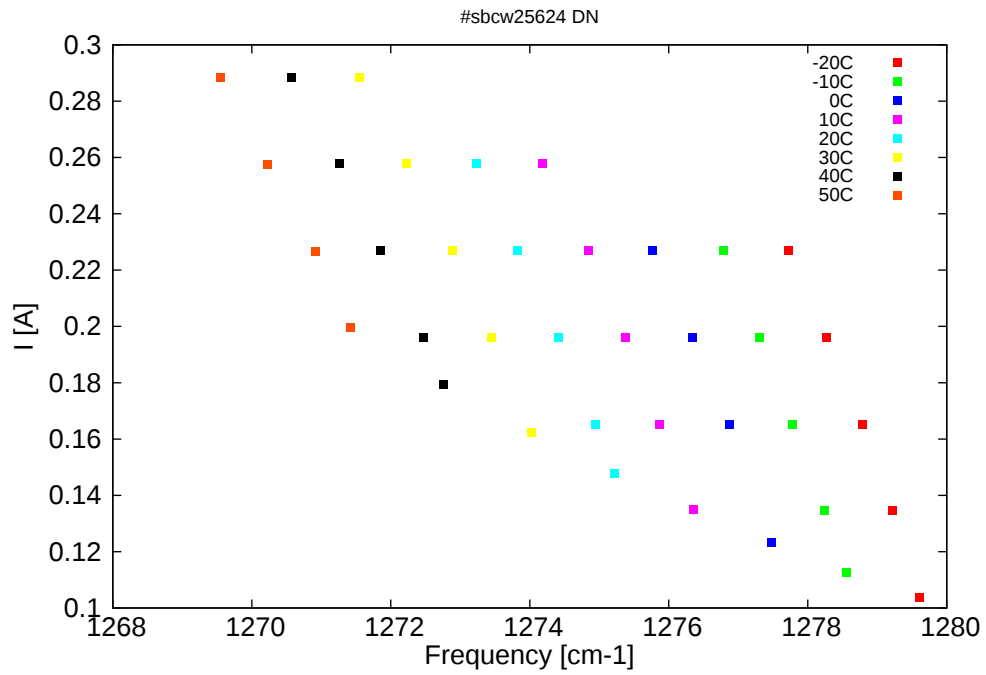


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
7814.9	1279.6	0.7	-20	8.62	0.104
7817.3	1279.2	14.4	-20	9.06	0.135
7819.9	1278.8	26.7	-20	9.48	0.165
7823.1	1278.3	36.2	-20	9.86	0.196
7826.4	1277.7	42.2	-20	10.24	0.227
7821.3	1278.6	0.5	-10	8.54	0.113
7823.2	1278.2	9.4	-10	8.85	0.135
7826.1	1277.8	21.5	-10	9.26	0.165
7829	1277.3	30.9	-10	9.64	0.196
7832.2	1276.8	37.4	-10	10.02	0.227
7827.9	1277.5	0.4	0	8.5	0.123
7831.6	1276.9	16.3	0	9.06	0.165
7834.9	1276.3	25.7	0	9.45	0.196
7838.4	1275.8	32.2	0	9.83	0.227
7834.8	1276.4	0.4	10	8.47	0.135
7837.8	1275.9	11.2	10	8.87	0.165
7840.8	1275.4	20.5	10	9.24	0.196
7844.1	1274.8	27.2	10	9.6	0.227
7848.1	1274.2	31.1	10	9.96	0.258
7841.8	1275.2	0.4	20	8.47	0.148
7843.5	1274.9	5.9	20	8.7	0.165
7846.7	1274.4	15	20	9.07	0.196
7850.4	1273.8	21.8	20	9.43	0.227
7854	1273.2	26.1	20	9.77	0.258
7849.1	1274	0.4	30	8.5	0.162
7852.7	1273.4	9.8	30	8.9	0.196
7856.1	1272.9	16.7	30	9.26	0.227
7860.3	1272.2	21.4	30	9.59	0.258
7864.4	1271.6	23.9	30	9.93	0.289
7857	1272.8	0.3	40	8.55	0.179
7858.7	1272.5	4.5	40	8.74	0.196
7862.5	1271.9	11.3	40	9.09	0.227
7866.2	1271.3	16.3	40	9.43	0.258
7870.5	1270.6	19.4	40	9.76	0.289
7865.2	1271.4	0.4	50	8.65	0.2
7868.4	1270.9	6.1	50	8.94	0.227
7872.6	1270.2	11.2	50	9.28	0.258
7876.8	1269.5	14.6	50	9.6	0.289

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

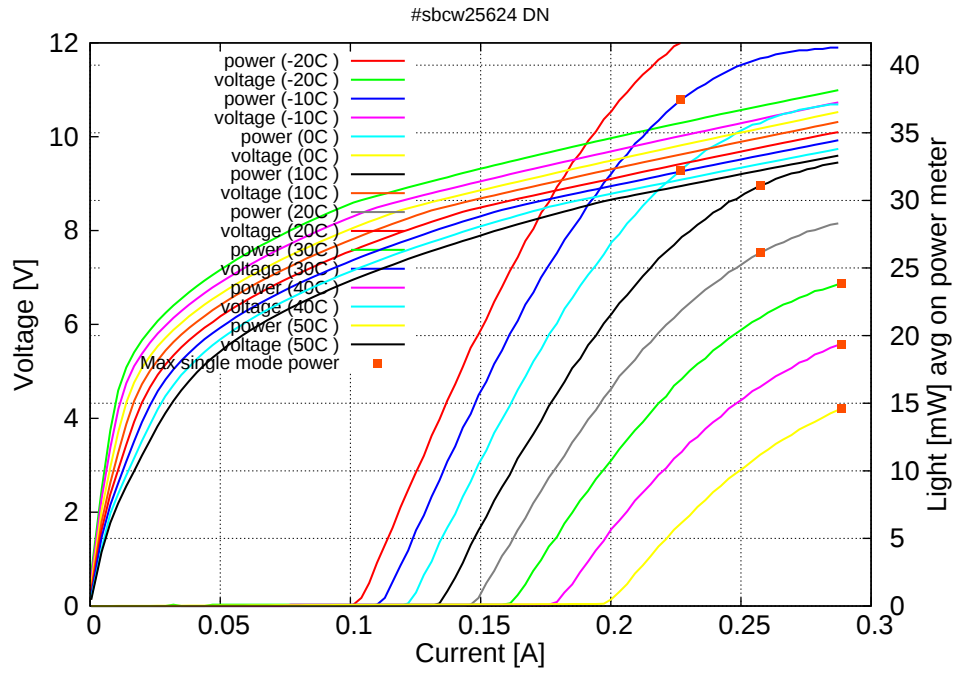


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=8.5V$ (2-wires measurements). Maximum operation current: 0.23A between -20C and 0C, 0.26A between 10C and 20C, 0.29A between 30C and 50C.

Figure 3: spectra at different temperatures for various DC currents

