

**Datasheet for #sbcw24898 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 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 #sbcw24898 DN (please note that AlN submount numbering is A1279)

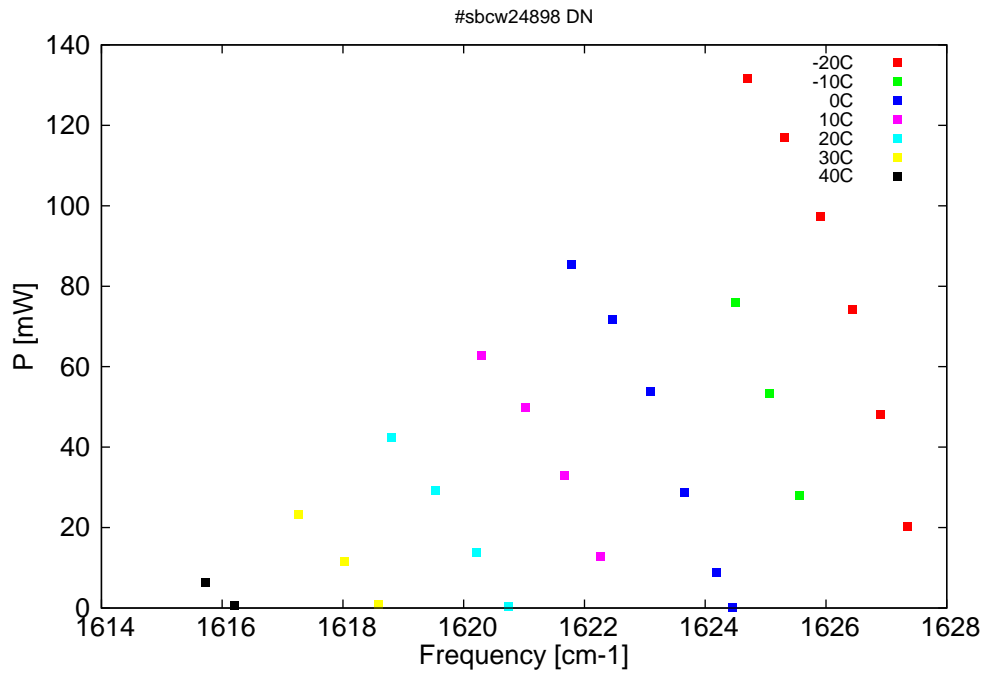


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

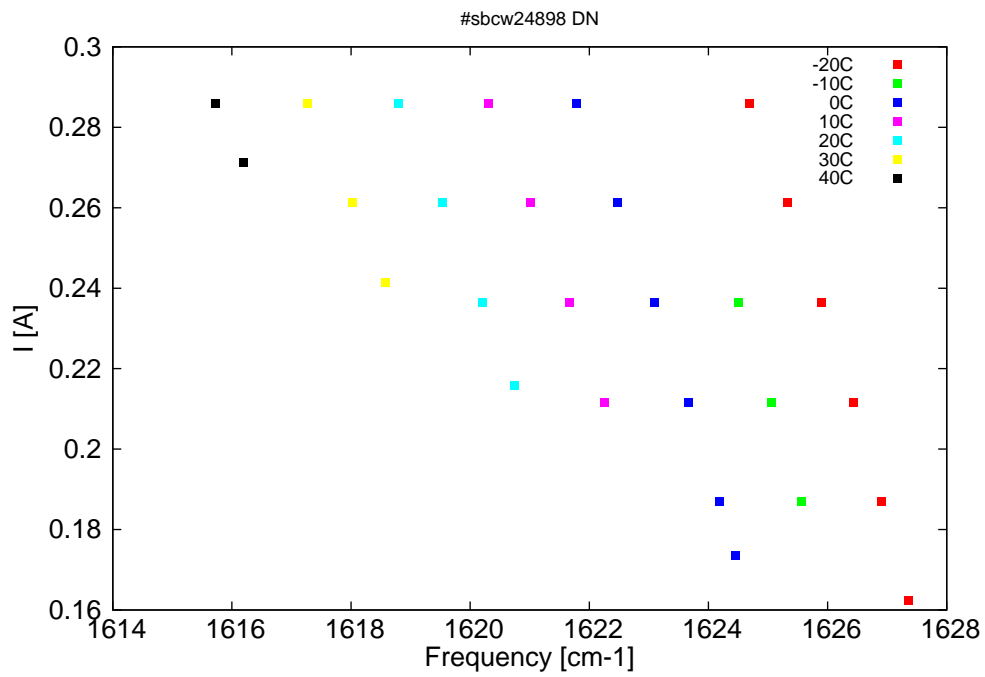


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
6145	1627.4	20.4	-20	9.25	0.162
6146.6	1626.9	48	-20	9.49	0.187
6148.4	1626.4	74.3	-20	9.72	0.212
6150.4	1625.9	97.4	-20	9.96	0.237
6152.6	1625.3	116.9	-20	10.19	0.261
6155	1624.7	131.6	-20	10.42	0.286
6151.7	1625.6	28	-10	9.43	0.187
6153.6	1625.1	53.3	-10	9.66	0.212
6155.7	1624.5	75.9	-10	9.9	0.237
6155.9	1624.5	0.1	0	9.23	0.174
6156.9	1624.2	8.8	0	9.36	0.187
6158.9	1623.7	28.7	0	9.6	0.212
6161.1	1623.1	53.8	0	9.84	0.236
6163.4	1622.5	71.7	0	10.08	0.261
6166	1621.8	85.5	0	10.32	0.286
6164.2	1622.3	12.8	10	9.54	0.212
6166.5	1621.7	32.9	10	9.79	0.236
6169	1621	49.8	10	10.03	0.261
6171.7	1620.3	62.9	10	10.28	0.286
6170	1620.7	0.4	20	9.53	0.216
6172	1620.2	13.8	20	9.74	0.236
6174.6	1619.5	29.3	20	9.98	0.261
6177.4	1618.8	42.4	20	10.24	0.286
6178.2	1618.6	0.9	30	9.74	0.242
6180.3	1618	11.7	30	9.94	0.261
6183.3	1617.3	23.3	30	10.19	0.286
6187.4	1616.2	0.7	40	10	0.271
6189.2	1615.7	6.4	40	10.15	0.286

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

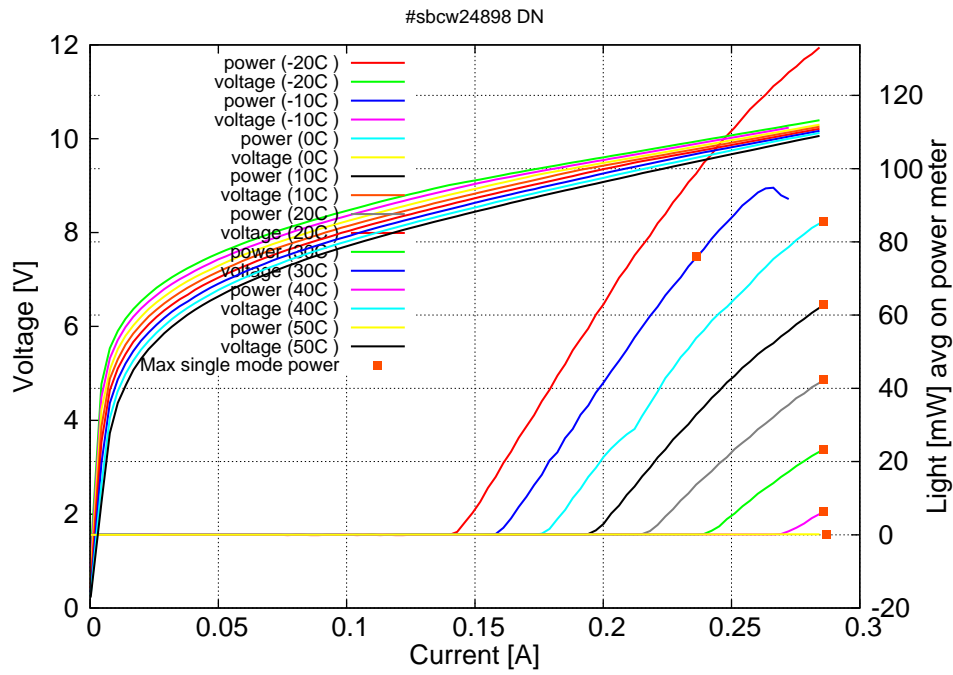


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.14A$  /  $V_{th}=9.0V$  (2-wires measurements). Maximum operation current: 0.287A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

