

Datasheet for #sbcw24426 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 #sbcw24426 DN (please note that AlN submount numbering is A0ZXT)

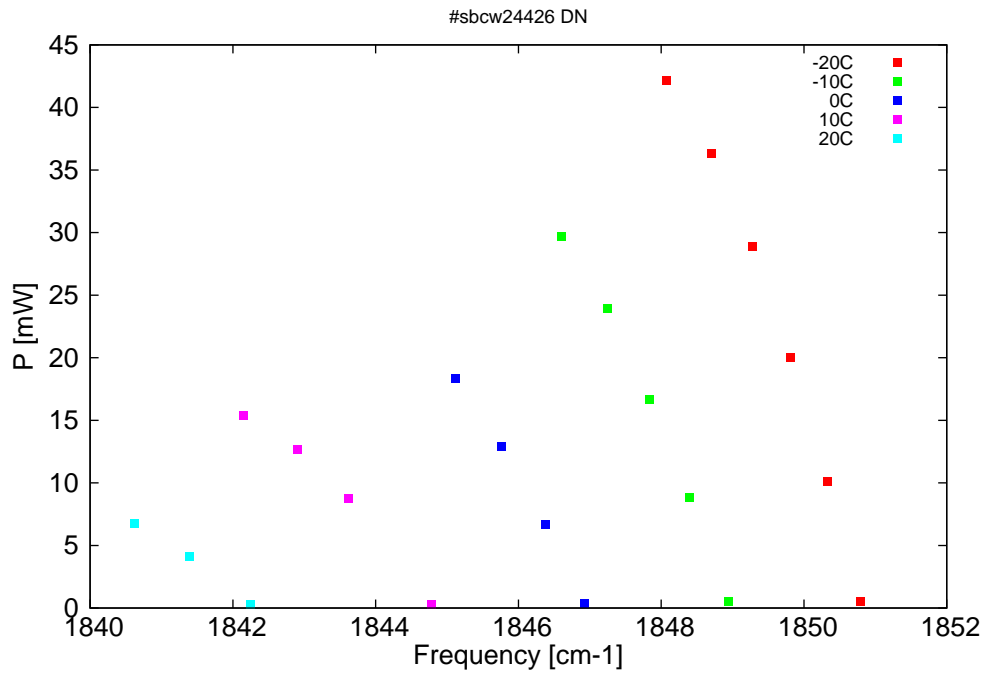


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

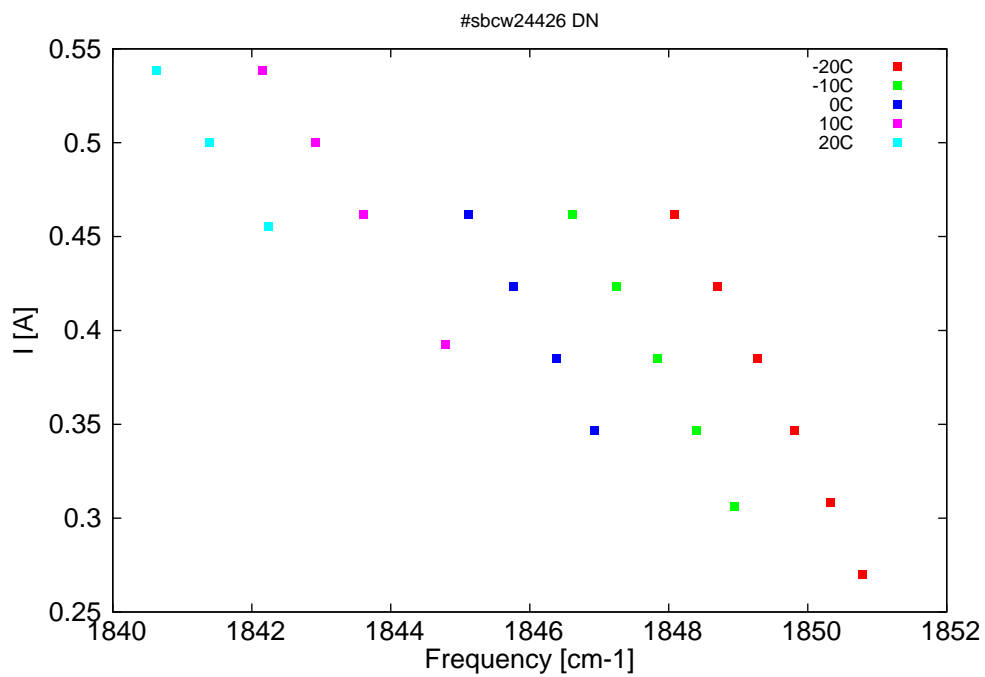


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
5403.1	1850.8	0.5	-20	8.7	0.27
5404.5	1850.3	10.1	-20	8.89	0.309
5405.9	1849.8	20	-20	9.08	0.347
5407.5	1849.3	28.9	-20	9.28	0.385
5409.2	1848.7	36.3	-20	9.48	0.423
5411	1848.1	42.2	-20	9.68	0.462
5408.5	1848.9	0.5	-10	8.83	0.306
5410.1	1848.4	8.8	-10	9.03	0.347
5411.7	1847.8	16.7	-10	9.23	0.385
5413.5	1847.2	23.9	-10	9.43	0.423
5415.3	1846.6	29.7	-10	9.63	0.462
5414.4	1846.9	0.4	0	8.98	0.347
5416	1846.4	6.7	0	9.17	0.385
5417.8	1845.8	12.9	0	9.37	0.424
5419.7	1845.1	18.3	0	9.58	0.462
5420.7	1844.8	0.3	10	9.16	0.393
5424.1	1843.6	8.7	10	9.52	0.462
5426.2	1842.9	12.7	10	9.73	0.5
5428.4	1842.1	15.4	10	9.94	0.539
5428.2	1842.2	0.3	20	9.44	0.455
5430.7	1841.4	4.1	20	9.67	0.5
5432.9	1840.6	6.8	20	9.89	0.539

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

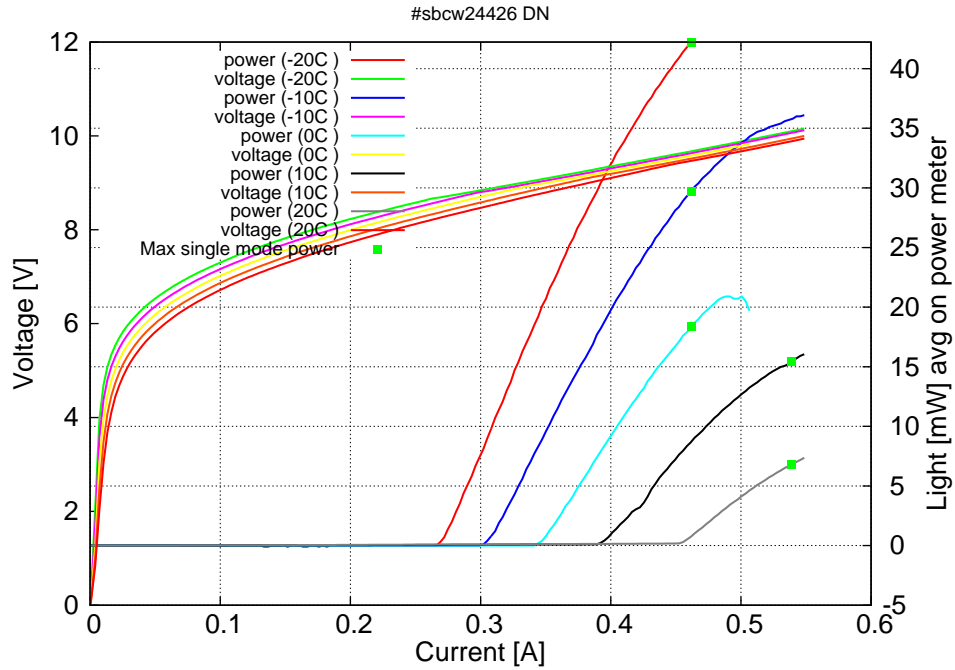


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.46A between -20C and 0C, 0.54A between 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

