

Datasheet for #sbcw24287 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 #sbcw24287 DN (please note that AlN submount numbering is A10ZY)

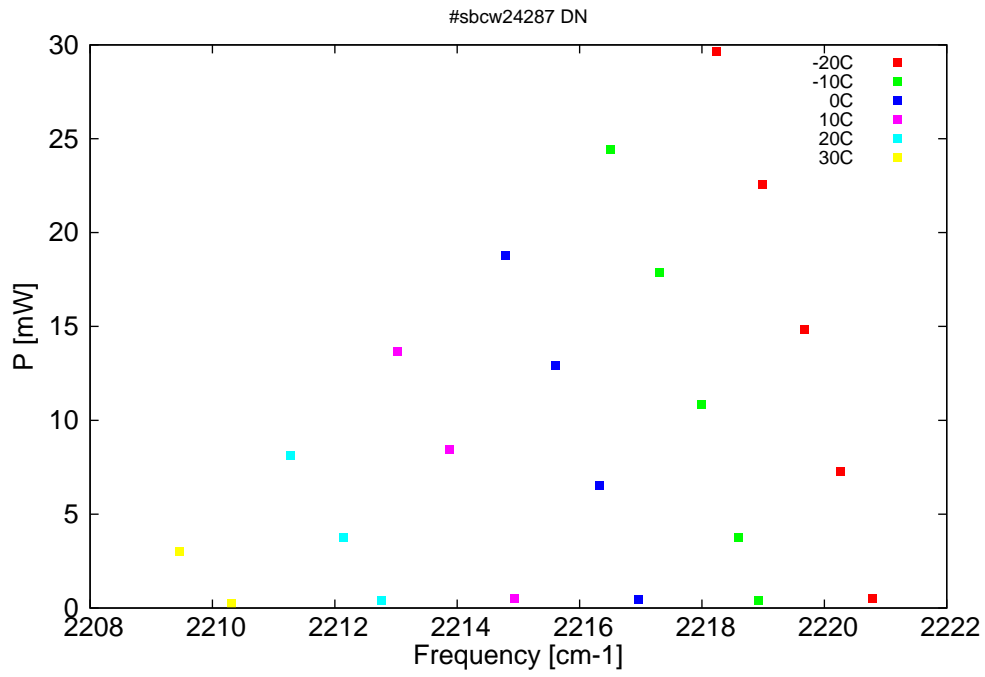


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

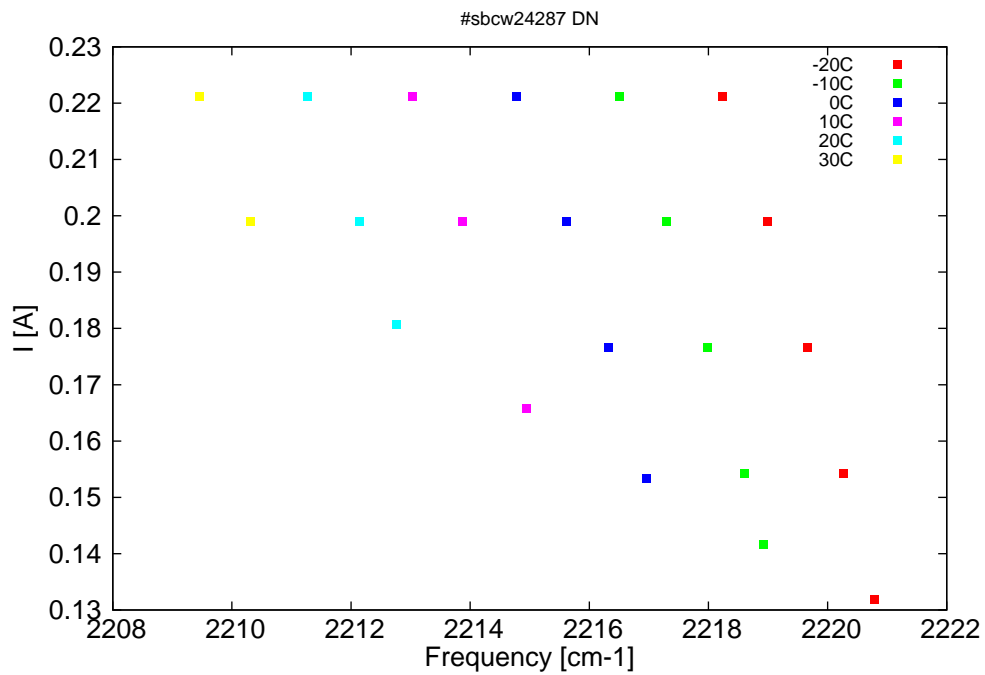


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4502.9	2220.8	0.5	-20	9.27	0.132
4504	2220.3	7.3	-20	9.52	0.154
4505.2	2219.7	14.8	-20	9.77	0.177
4506.5	2219	22.6	-20	10.04	0.199
4508.1	2218.2	29.7	-20	10.32	0.221
4506.7	2218.9	0.4	-10	9.35	0.142
4507.3	2218.6	3.7	-10	9.49	0.154
4508.6	2218	10.8	-10	9.75	0.177
4510	2217.3	17.9	-10	10.01	0.199
4511.6	2216.5	24.4	-10	10.3	0.221
4510.7	2217	0.5	0	9.47	0.153
4512	2216.3	6.5	0	9.72	0.177
4513.4	2215.6	12.9	0	9.99	0.199
4515.1	2214.8	18.8	0	10.28	0.221
4514.8	2214.9	0.5	10	9.59	0.166
4517	2213.9	8.5	10	9.97	0.199
4518.7	2213	13.7	10	10.26	0.221
4519.2	2212.8	0.4	20	9.76	0.181
4520.5	2212.1	3.8	20	9.96	0.199
4522.3	2211.3	8.1	20	10.25	0.221
4524.2	2210.3	0.3	30	9.99	0.199
4526	2209.5	3	30	10.25	0.221

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

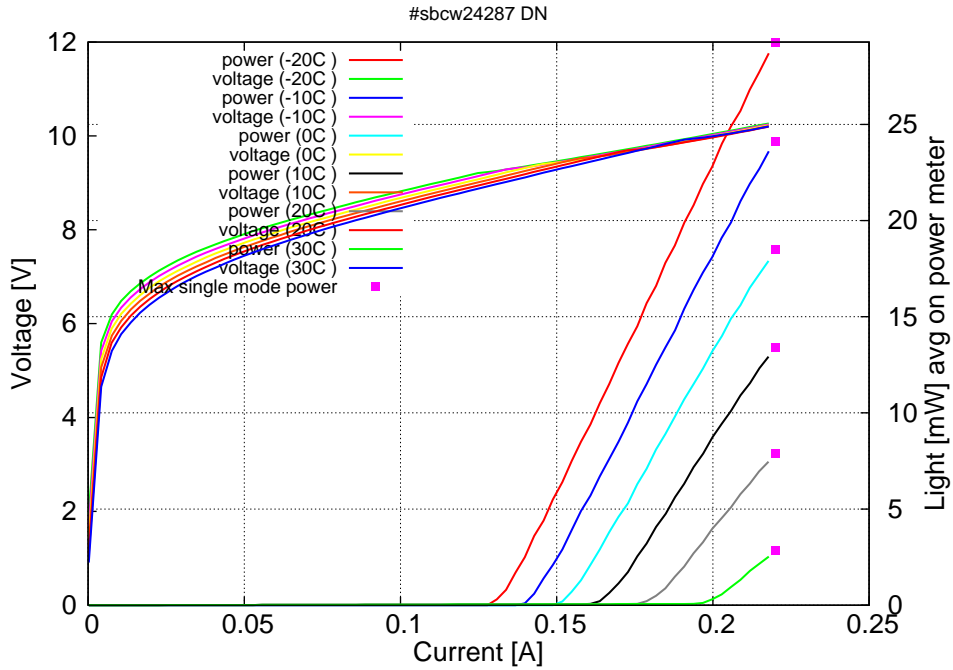


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=9.3V$ (2-wires measurements). Maximum operation current: 0.22A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

