

Datasheet for #sbcw24279 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 #sbcw24279 DN (please note that AlN submount numbering is A0V98)

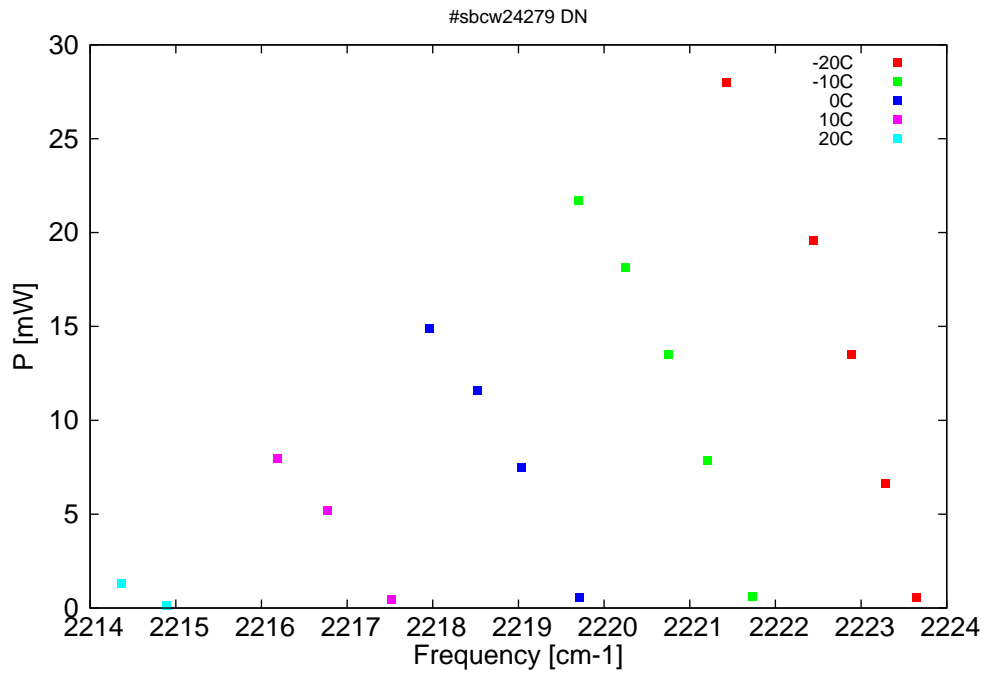


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

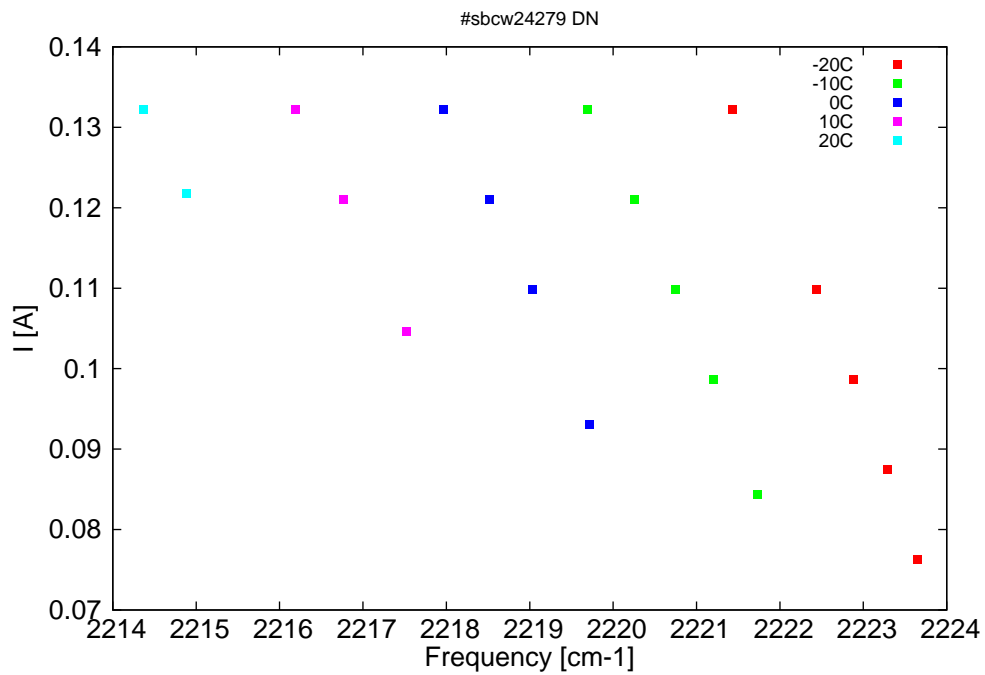


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4497.1	2223.7	0.6	-20	12.54	0.076
4497.8	2223.3	6.7	-20	12.76	0.088
4498.7	2222.9	13.5	-20	13	0.099
4499.6	2222.4	19.6	-20	13.23	0.11
4501.6	2221.4	28	-20	13.74	0.132
4501	2221.7	0.6	-10	12.67	0.084
4502.1	2221.2	7.8	-10	12.95	0.099
4503	2220.8	13.5	-10	13.19	0.11
4504	2220.3	18.1	-10	13.43	0.121
4505.1	2219.7	21.7	-10	13.69	0.132
4505.1	2219.7	0.5	0	12.82	0.093
4506.5	2219	7.5	0	13.15	0.11
4507.5	2218.5	11.6	0	13.39	0.121
4508.6	2218	14.9	0	13.64	0.132
4509.5	2217.5	0.4	10	13.04	0.105
4511.1	2216.8	5.2	10	13.36	0.121
4512.2	2216.2	7.9	10	13.61	0.132
4514.9	2214.9	0.1	20	13.43	0.122
4516	2214.4	1.3	20	13.63	0.132

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

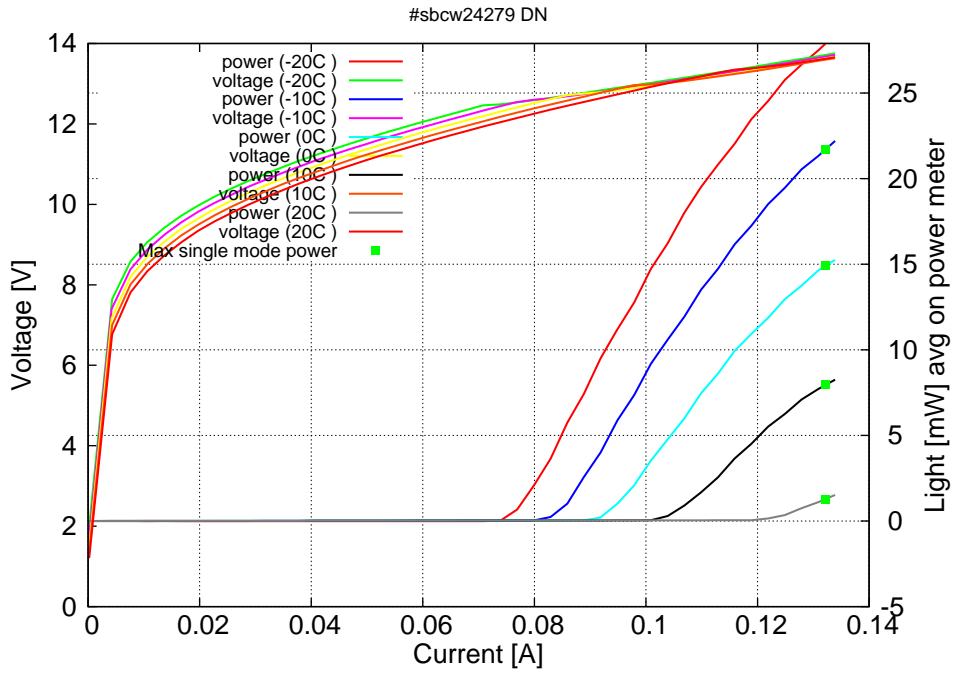


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=12.5V$ (2-wires measurements). Maximum operation current: 0.135A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

