

Datasheet for #sbcw22871 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 #sbcw22871 DN (please note that AlN submount numbering is A0X1D)

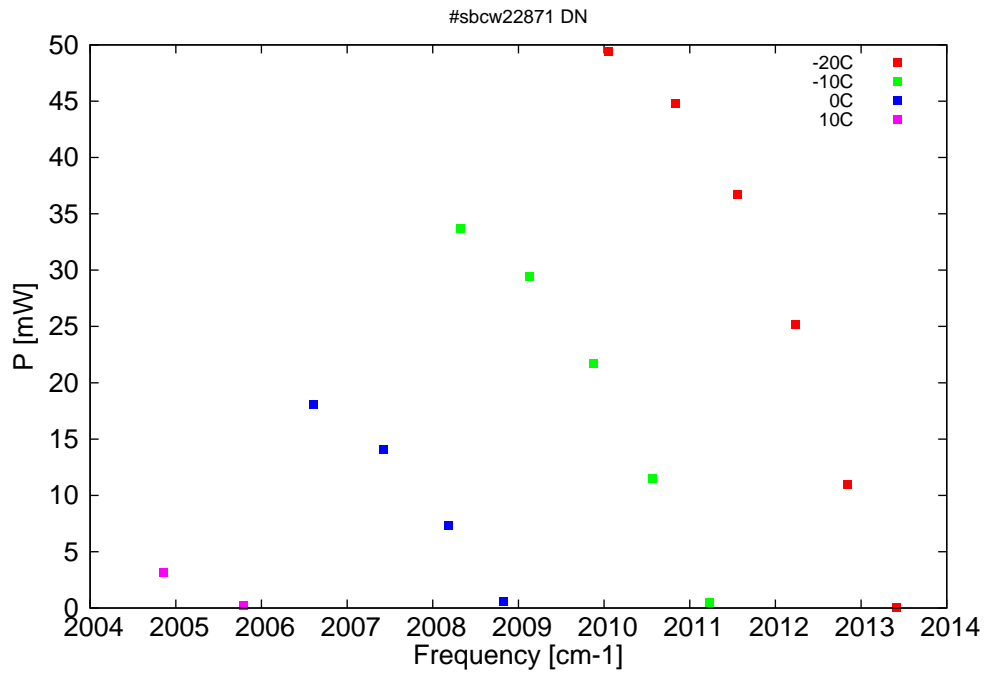


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

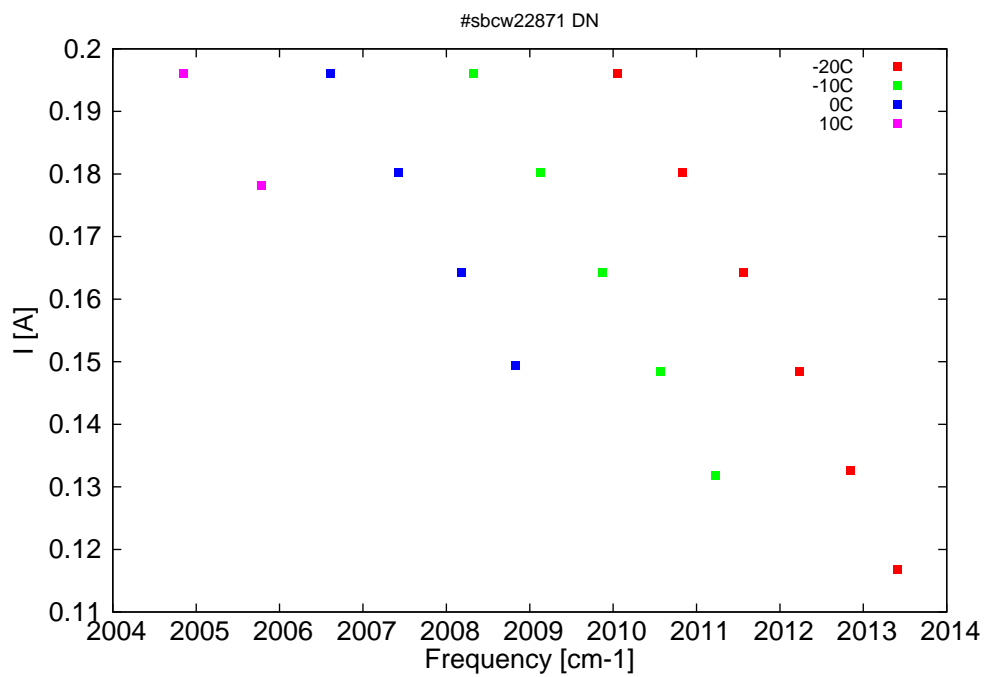


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4966.7	2013.4	0.1	-20	14.33	0.117
4968.1	2012.8	11	-20	14.64	0.133
4969.6	2012.2	25.1	-20	14.99	0.149
4971.3	2011.6	36.7	-20	15.34	0.164
4973.1	2010.8	44.8	-20	15.7	0.18
4975	2010	49.4	-20	16.06	0.196
4972.1	2011.2	0.5	-10	14.49	0.132
4973.7	2010.6	11.5	-10	14.84	0.149
4975.4	2009.9	21.7	-10	15.18	0.164
4977.3	2009.1	29.4	-10	15.54	0.18
4979.3	2008.3	33.7	-10	15.89	0.196
4978	2008.8	0.6	0	14.71	0.149
4979.6	2008.2	7.3	0	15	0.164
4981.5	2007.4	14.1	0	15.33	0.18
4983.5	2006.6	18.1	0	15.67	0.196
4985.6	2005.8	0.3	10	15.18	0.178
4987.9	2004.9	3.2	10	15.53	0.196

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

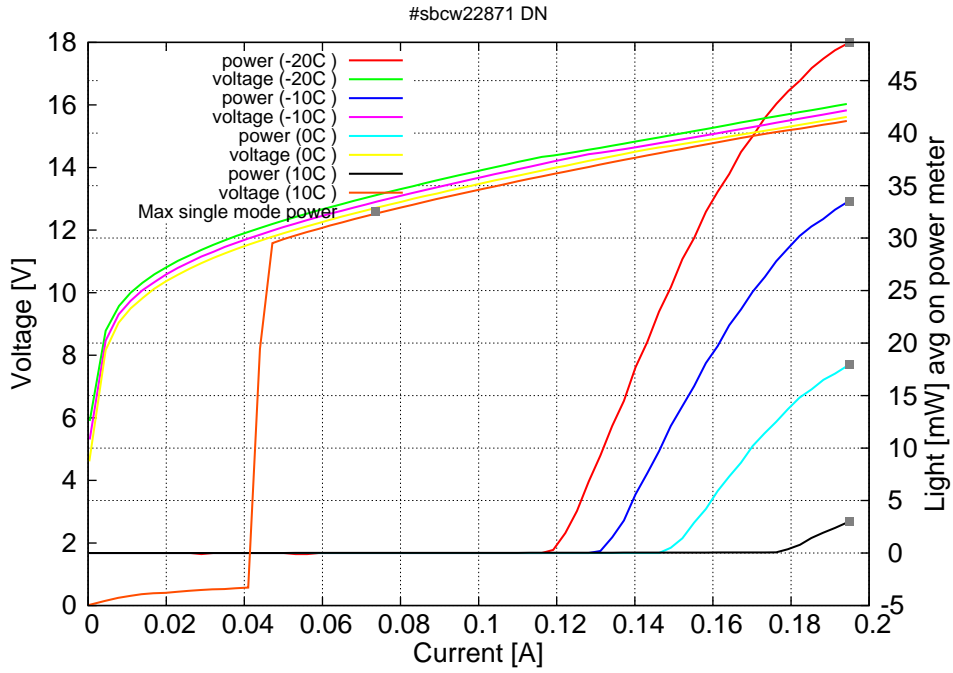


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.12A$ / $V_{th}=14.3V$ (2-wires measurements). Maximum operation current: 0.195A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

