

Datasheet for #sbcw23276 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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 #sbcw23276 DN

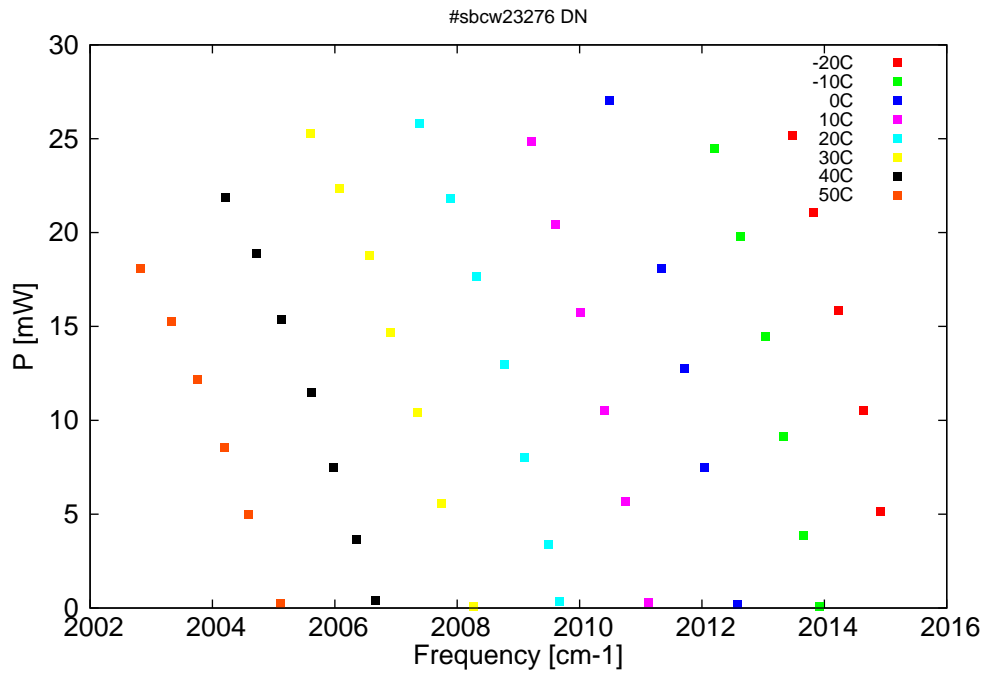


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

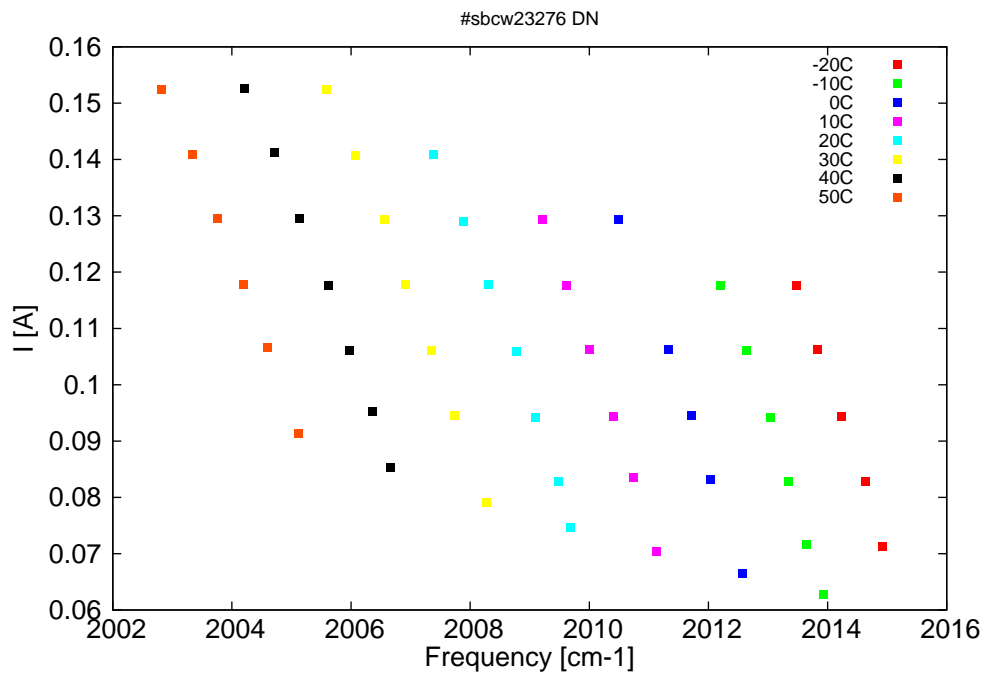


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4963	2014.9	5.1	-20	12.04	0.071
4963.7	2014.6	10.5	-20	12.4	0.083
4964.7	2014.2	15.8	-20	12.73	0.094
4965.7	2013.8	21	-20	13.09	0.106
4966.5	2013.5	25.2	-20	13.46	0.118
4965.4	2013.9	0.1	-10	11.63	0.063
4966.1	2013.7	3.9	-10	11.87	0.072
4966.9	2013.3	9.1	-10	12.2	0.083
4967.6	2013	14.5	-10	12.52	0.094
4968.6	2012.6	19.8	-10	12.86	0.106
4969.7	2012.2	24.5	-10	13.19	0.118
4968.7	2012.6	0.2	0	11.58	0.066
4970.1	2012	7.5	0	12.03	0.083
4970.9	2011.7	12.8	0	12.34	0.094
4971.8	2011.3	18.1	0	12.65	0.106
4973.9	2010.5	27	0	13.3	0.129
4972.3	2011.1	0.3	10	11.56	0.07
4973.3	2010.7	5.7	10	11.88	0.084
4974.1	2010.4	10.5	10	12.18	0.094
4975.1	2010	15.7	10	12.48	0.106
4976.1	2009.6	20.4	10	12.77	0.118
4977.1	2009.2	24.9	10	13.09	0.129
4975.9	2009.7	0.3	20	11.55	0.075
4976.4	2009.5	3.4	20	11.74	0.083
4977.3	2009.1	8	20	12.03	0.094
4978.1	2008.8	13	20	12.32	0.106
4979.3	2008.3	17.7	20	12.61	0.118
4980.3	2007.9	21.8	20	12.89	0.129
4981.6	2007.4	25.8	20	13.2	0.141
4979.4	2008.3	0.1	30	11.55	0.079
4980.7	2007.7	5.6	30	11.9	0.094
4981.7	2007.4	10.4	30	12.19	0.106
4982.8	2006.9	14.7	30	12.47	0.118
4983.6	2006.6	18.8	30	12.74	0.129
4984.9	2006.1	22.3	30	13.02	0.141
4986.1	2005.6	25.3	30	13.32	0.152
4983.4	2006.7	0.4	40	11.59	0.085
4984.2	2006.4	3.7	40	11.81	0.095
4985.1	2006	7.5	40	12.06	0.106
4986	2005.6	11.5	40	12.33	0.118
4987.2	2005.1	15.4	40	12.59	0.129
4988.2	2004.7	18.9	40	12.86	0.141
4989.5	2004.2	21.8	40	13.14	0.153
4987.2	2005.1	0.3	50	11.62	0.091
4988.5	2004.6	5	50	11.95	0.107
4989.6	2004.2	8.6	50	12.2	0.118
4990.6	2003.7	12.2	50	12.46	0.13
4991.7	2003.3	15.2	50	12.71	0.141
4993	2002.8	18.1	50	12.98	0.152

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

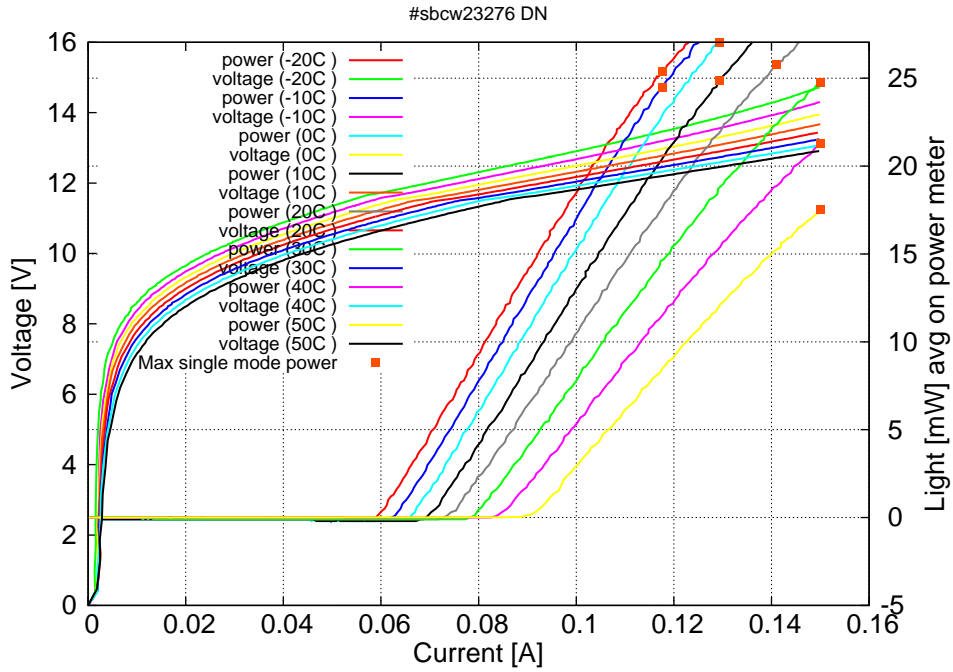


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.06\text{A}$ / $V_{th}=11.7\text{V}$ (2-wires measurements). Maximum operation current: 0.12A between -20C and -10C, 0.13A between 0C and 10C, 0.14A at 20C, 0.15A between 30C and 50C.

