

Datasheet for #sbcw23759 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 #sbcw23759 DN (please note that AlN submount numbering is A0Y3F)

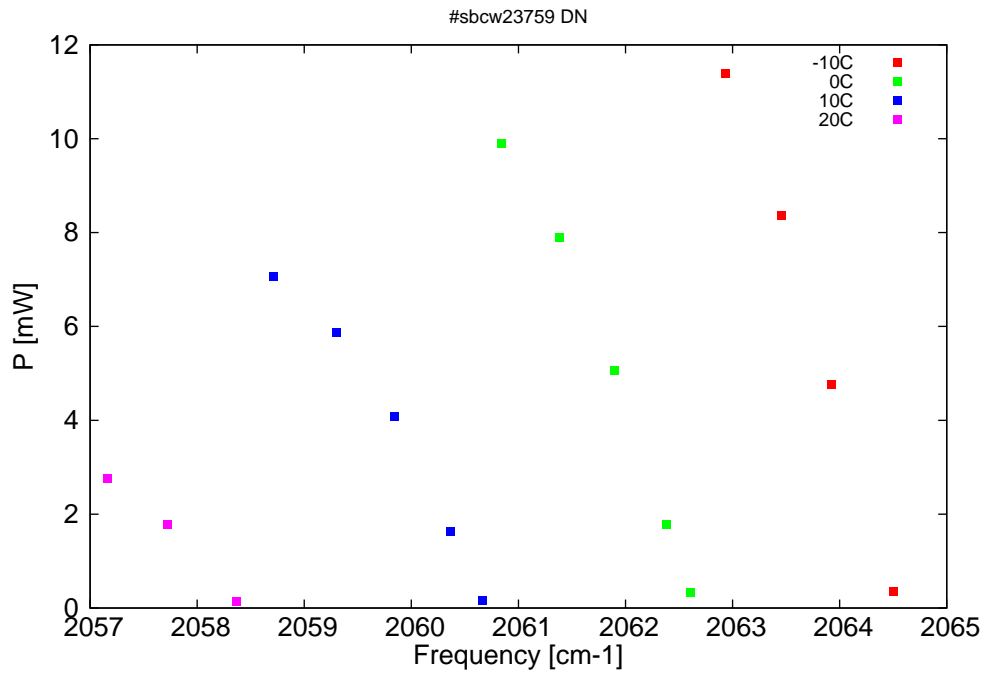


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

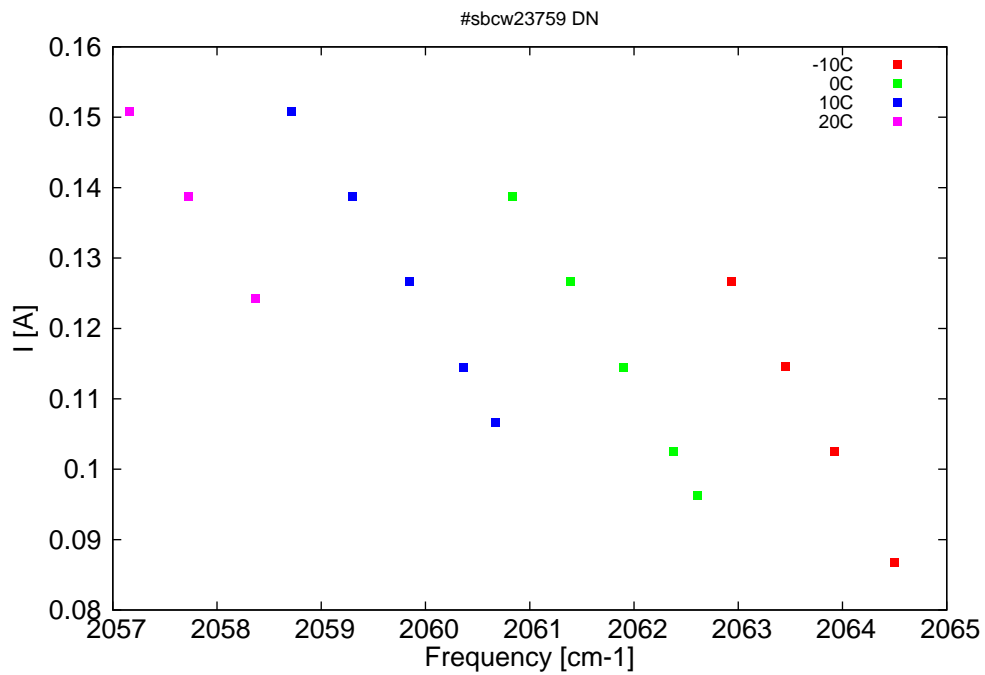


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4843.8	2064.5	0.4	-10	12.92	0.087
4845.1	2063.9	4.8	-10	13.36	0.103
4846.2	2063.5	8.4	-10	13.73	0.115
4847.5	2062.9	11.4	-10	14.1	0.127
4848.2	2062.6	0.3	0	12.95	0.096
4848.8	2062.4	1.8	0	13.12	0.103
4849.9	2061.9	5.1	0	13.45	0.115
4851.1	2061.4	7.9	0	13.8	0.127
4852.4	2060.8	9.9	0	14.18	0.139
4852.8	2060.7	0.2	10	13.08	0.107
4853.5	2060.4	1.6	10	13.27	0.115
4854.7	2059.8	4.1	10	13.6	0.127
4856	2059.3	5.9	10	13.95	0.139
4857.4	2058.7	7.1	10	14.32	0.151
4858.2	2058.4	0.1	20	13.4	0.124
4859.7	2057.7	1.8	20	13.78	0.139
4861.1	2057.2	2.8	20	14.12	0.151

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

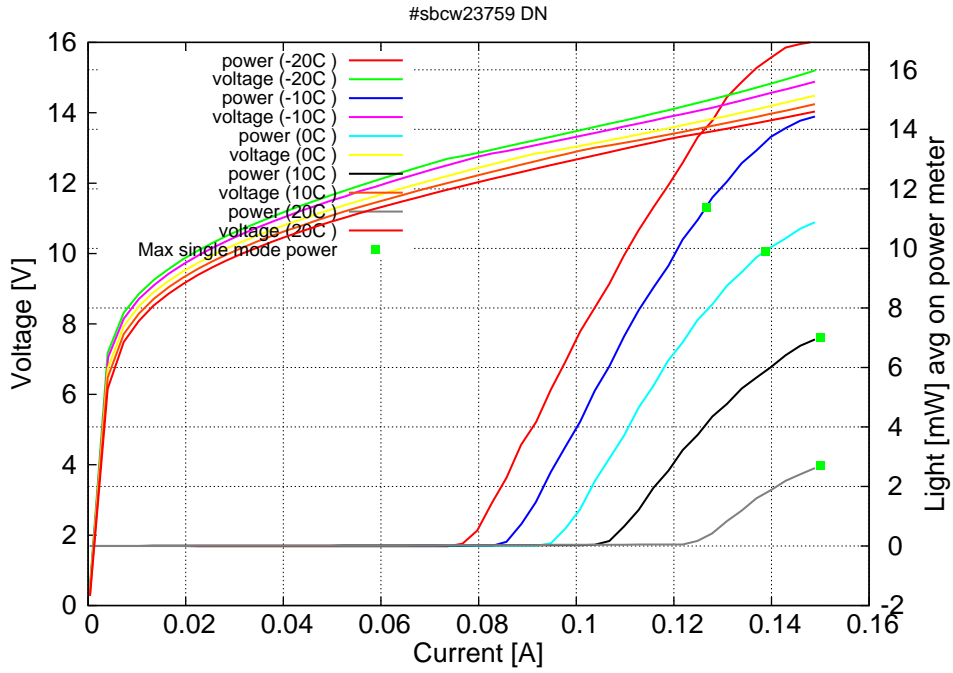


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=12.7V$ (2-wires measurements). Maximum operation current: 0.13A between -20C and -10C, 0.14A at 0C, 0.15A between 10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

