

**Datasheet for #sbcw19562 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 #sbcw19562 DN (please note that AlN submount numbering is A0PG9)

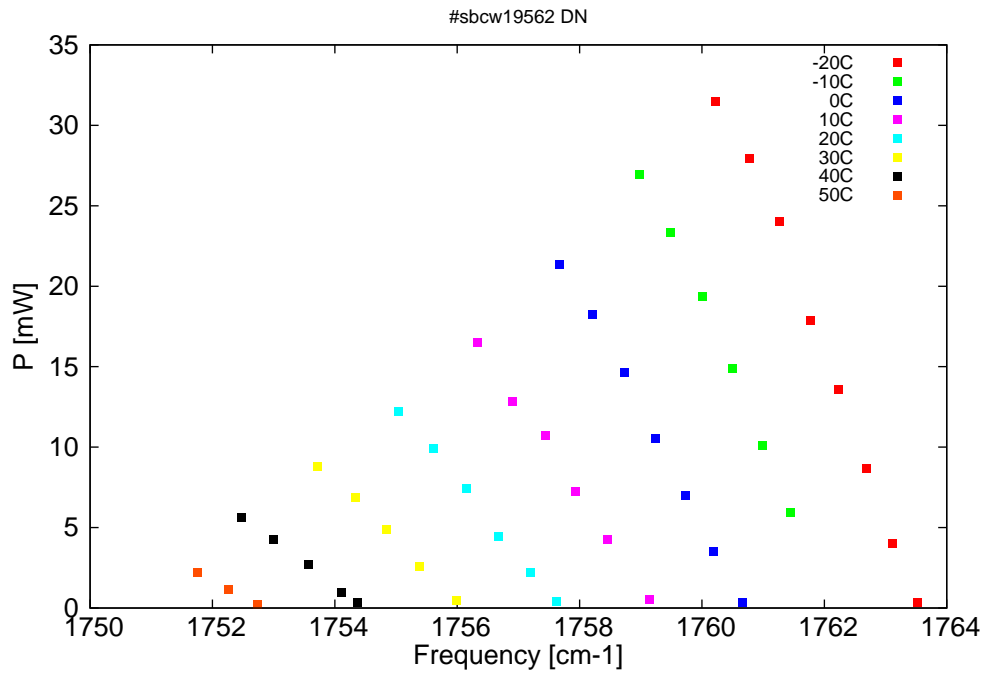


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

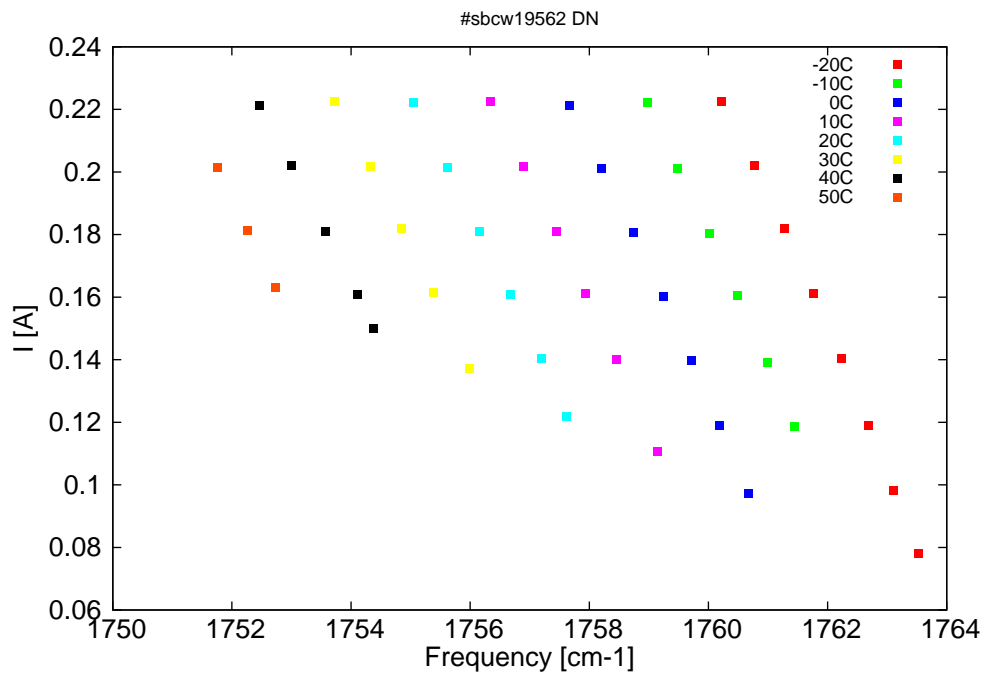


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5670.5	1763.5	0.3	-20	9.45	0.078
5671.8	1763.1	4	-20	9.81	0.098
5673.2	1762.7	8.7	-20	10.11	0.119
5674.6	1762.2	13.6	-20	10.39	0.14
5676.1	1761.8	17.9	-20	10.65	0.161
5677.7	1761.3	24	-20	10.89	0.182
5679.3	1760.8	28	-20	11.12	0.202
5681.1	1760.2	31.5	-20	11.35	0.223
5677.1	1761.5	5.9	-10	9.87	0.119
5678.6	1761	10.1	-10	10.14	0.139
5680.2	1760.5	14.9	-10	10.4	0.161
5681.8	1760	19.4	-10	10.63	0.18
5683.5	1759.5	23.4	-10	10.87	0.201
5685.1	1759	26.9	-10	11.09	0.222
5679.7	1760.7	0.3	0	9.31	0.097
5681.2	1760.2	3.5	0	9.64	0.119
5682.7	1759.7	7	0	9.91	0.14
5684.3	1759.2	10.6	0	10.16	0.16
5685.9	1758.7	14.6	0	10.39	0.181
5687.6	1758.2	18.3	0	10.62	0.201
5689.3	1757.7	21.3	0	10.83	0.221
5684.6	1759.1	0.5	10	9.3	0.111
5686.8	1758.5	4.3	10	9.7	0.14
5688.5	1757.9	7.2	10	9.95	0.161
5690.1	1757.4	10.7	10	10.18	0.181
5691.8	1756.9	12.8	10	10.4	0.202
5693.7	1756.3	16.5	10	10.62	0.223
5689.5	1757.6	0.4	20	9.25	0.122
5690.9	1757.2	2.2	20	9.5	0.14
5692.6	1756.7	4.5	20	9.74	0.161
5694.3	1756.2	7.4	20	9.97	0.181
5696	1755.6	9.9	20	10.18	0.201
5697.9	1755	12.2	20	10.39	0.222
5694.8	1756	0.5	30	9.26	0.137
5696.8	1755.4	2.6	30	9.56	0.162
5698.5	1754.8	4.9	30	9.78	0.182
5700.2	1754.3	6.8	30	9.99	0.202
5702.2	1753.7	8.8	30	10.2	0.222
5700	1754.4	0.3	40	9.24	0.15
5700.9	1754.1	1	40	9.36	0.161
5702.7	1753.6	2.7	40	9.59	0.181
5704.5	1753	4.3	40	9.8	0.202
5706.2	1752.5	5.6	40	9.99	0.221
5705.4	1752.7	0.2	50	9.22	0.163
5706.9	1752.3	1.2	50	9.42	0.181
5708.6	1751.8	2.2	50	9.62	0.201

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

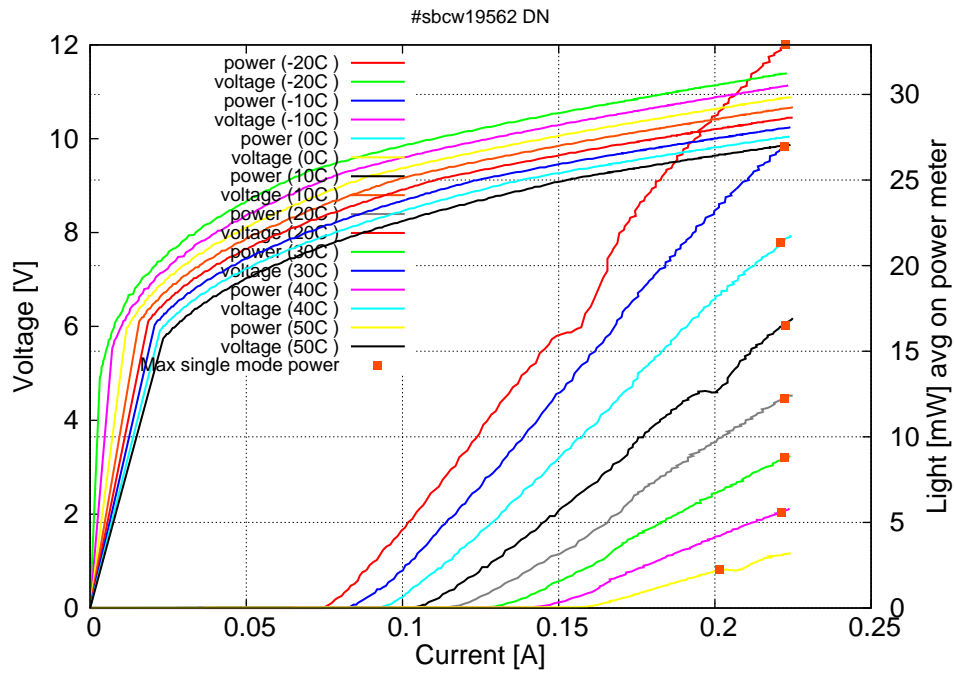


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.08A$  /  $V_{th}=9.5V$  (2-wires measurements). Maximum operation current: 0.225A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

