

**Datasheet for #sbcw25505 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 #sbcw25505 DN (please note that AlN submount numbering is A12LY)

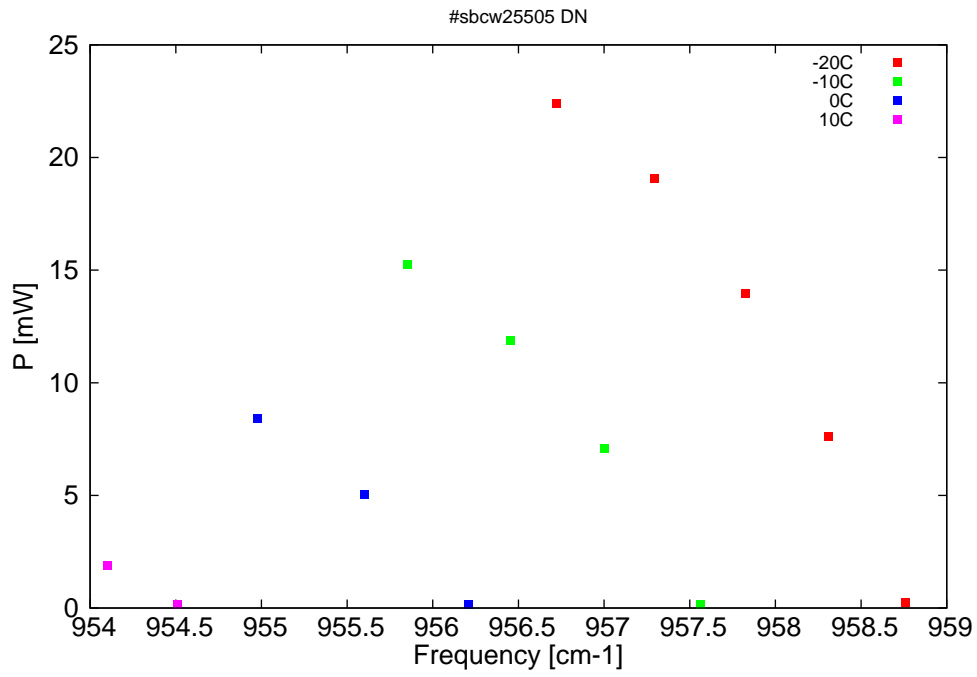


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

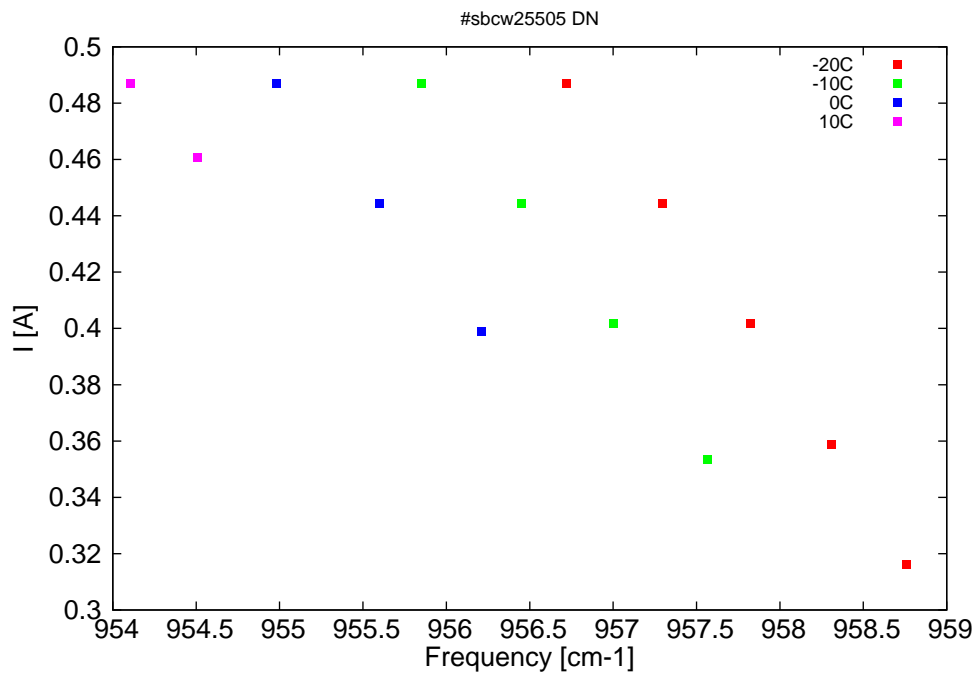


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10430.2	958.8	0.3	-20	9.19	0.316
10435	958.3	7.6	-20	9.52	0.359
10440.3	957.8	14	-20	9.84	0.402
10446.1	957.3	19.1	-20	10.17	0.444
10452.4	956.7	22.4	-20	10.51	0.487
10443.1	957.6	0.2	-10	9.39	0.353
10449.3	957	7.1	-10	9.76	0.402
10455.3	956.5	11.9	-10	10.09	0.444
10461.8	955.9	15.3	-10	10.43	0.487
10458	956.2	0.2	0	9.66	0.399
10464.6	955.6	5.1	0	10.02	0.444
10471.4	955	8.4	0	10.36	0.487
10476.6	954.5	0.2	10	10.09	0.461
10481	954.1	1.9	10	10.3	0.487

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

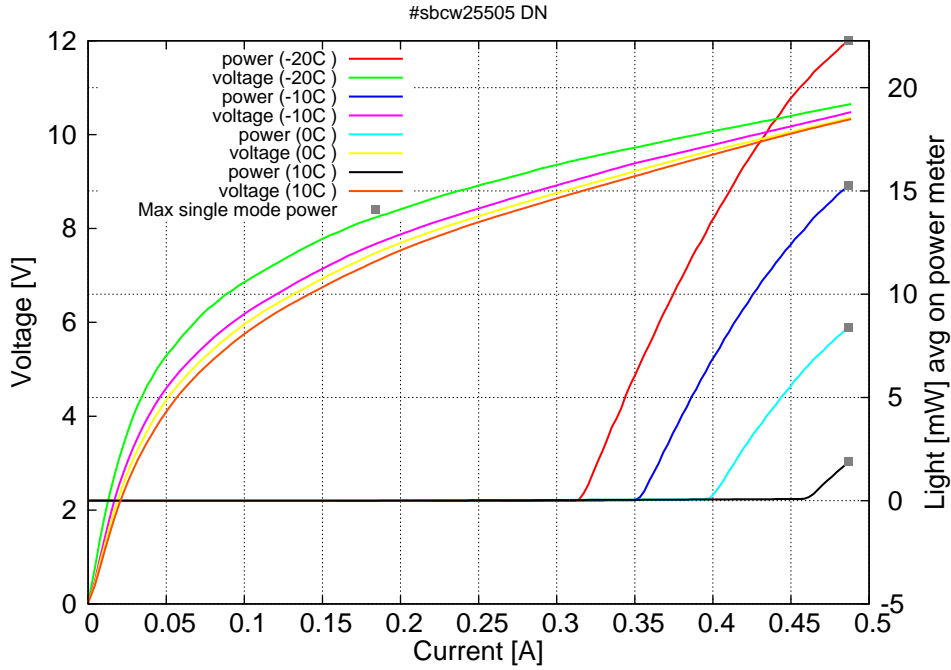


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.31A$  /  $V_{th}=9.3V$  (2-wires measurements). Maximum operation current: 0.490A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

