

**Datasheet for #sbcw25507 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 #sbcw25507 DN (please note that AlN submount numbering is A12MZ)

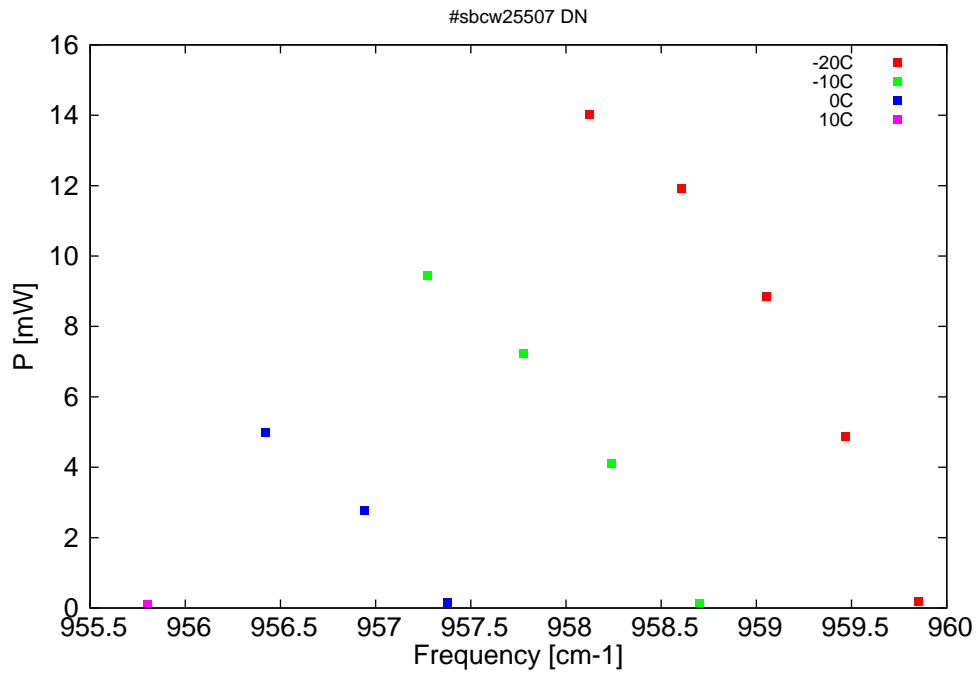


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

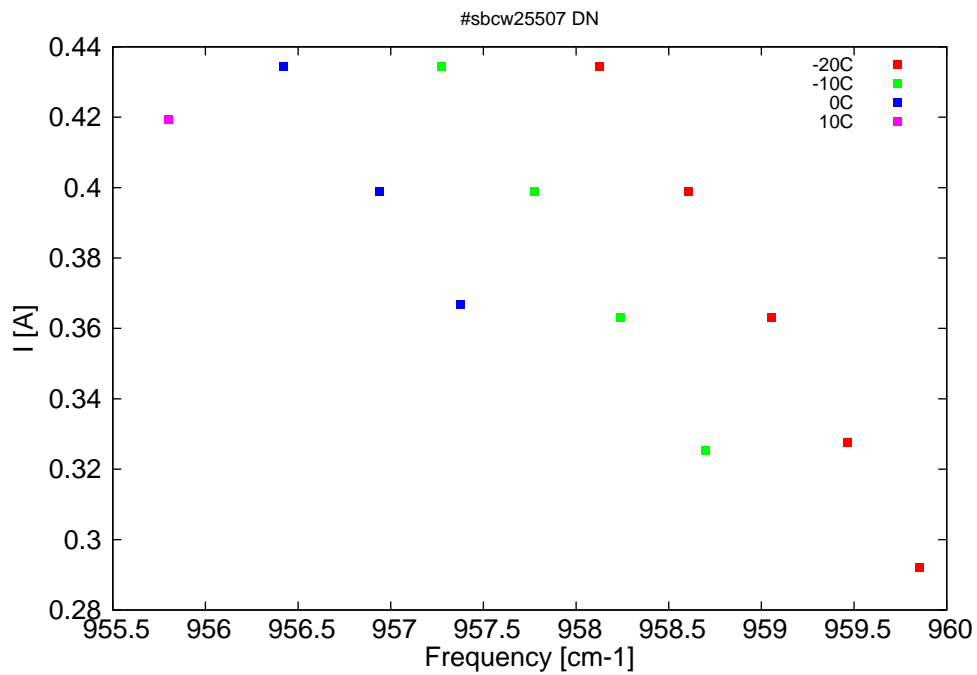


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
10418.3	959.9	0.2	-20	9.46	0.292
10422.5	959.5	4.9	-20	9.75	0.328
10427	959.1	8.9	-20	10.05	0.363
10431.8	958.6	11.9	-20	10.34	0.399
10437.1	958.1	14	-20	10.63	0.434
10430.8	958.7	0.1	-10	9.62	0.325
10435.8	958.2	4.1	-10	9.94	0.363
10440.9	957.8	7.2	-10	10.24	0.399
10446.3	957.3	9.4	-10	10.55	0.434
10445.2	957.4	0.1	0	9.88	0.367
10450	956.9	2.8	0	10.15	0.399
10455.7	956.4	5	0	10.46	0.434
10462.4	955.8	0.1	10	10.27	0.419

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

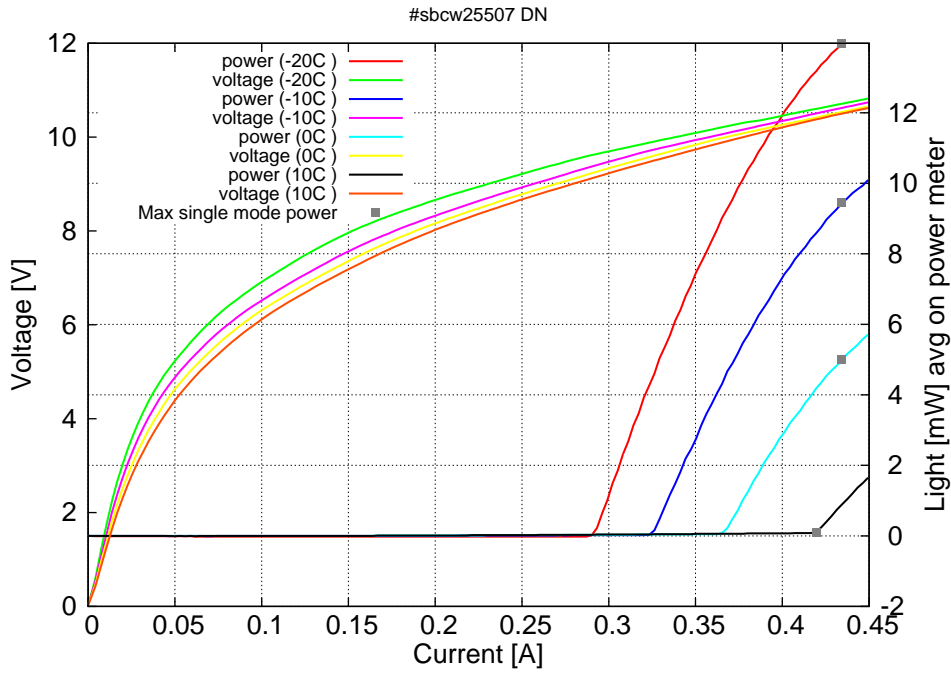


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.29A$  /  $V_{th}=9.4V$  (2-wires measurements). Maximum operation current: 0.450A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

