

Datasheet for #sbcw25506 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 #sbcw25506 DN (please note that AlN submount numbering is A12KX)

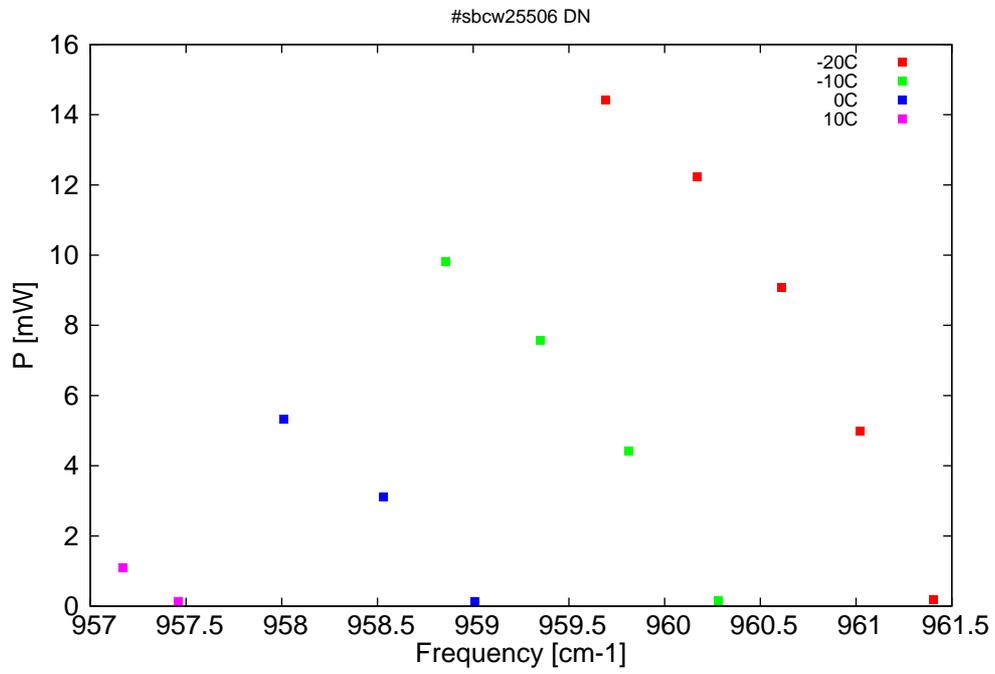


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

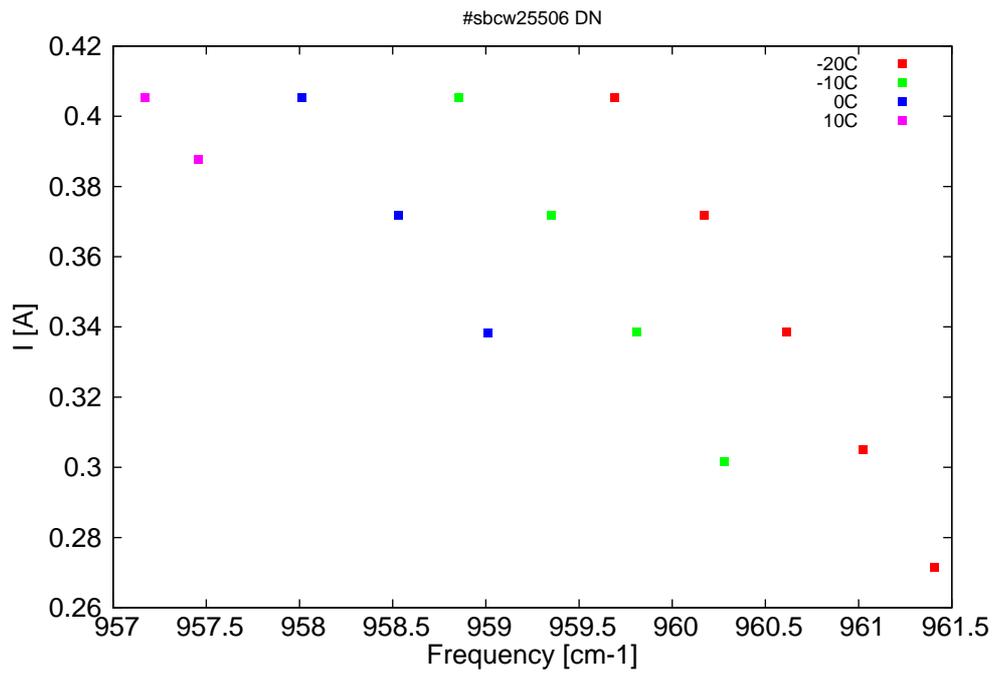


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10401.4	961.4	0.2	-20	9.65	0.272
10405.6	961	5	-20	9.97	0.305
10410	960.6	9.1	-20	10.28	0.339
10414.8	960.2	12.2	-20	10.6	0.372
10420	959.7	14.4	-20	10.9	0.405
10413.6	960.3	0.2	-10	9.81	0.302
10418.7	959.8	4.4	-10	10.16	0.339
10423.7	959.4	7.6	-10	10.49	0.372
10429.1	958.9	9.8	-10	10.8	0.405
10427.4	959	0.1	0	10.08	0.338
10432.7	958.5	3.1	0	10.4	0.372
10438.3	958	5.3	0	10.72	0.405
10444.3	957.5	0.1	10	10.49	0.388
10447.5	957.2	1.1	10	10.65	0.405

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

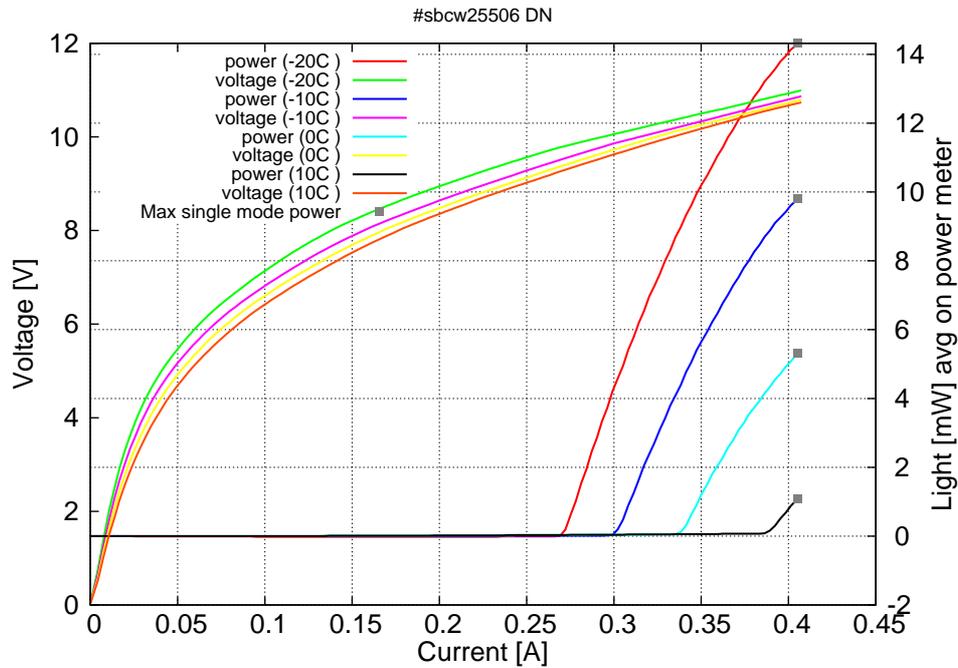


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.410A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

