

Datasheet for #sbcw26566 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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.

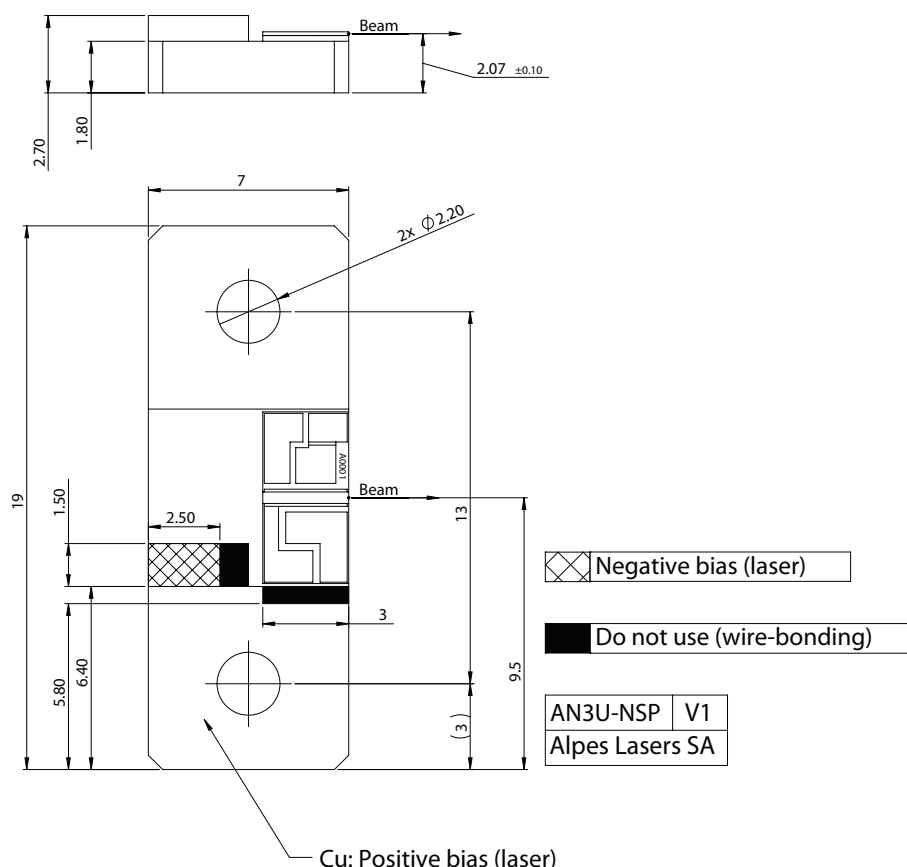


Figure 1: Mechanical and electrical interface for #sbcw26566 DN

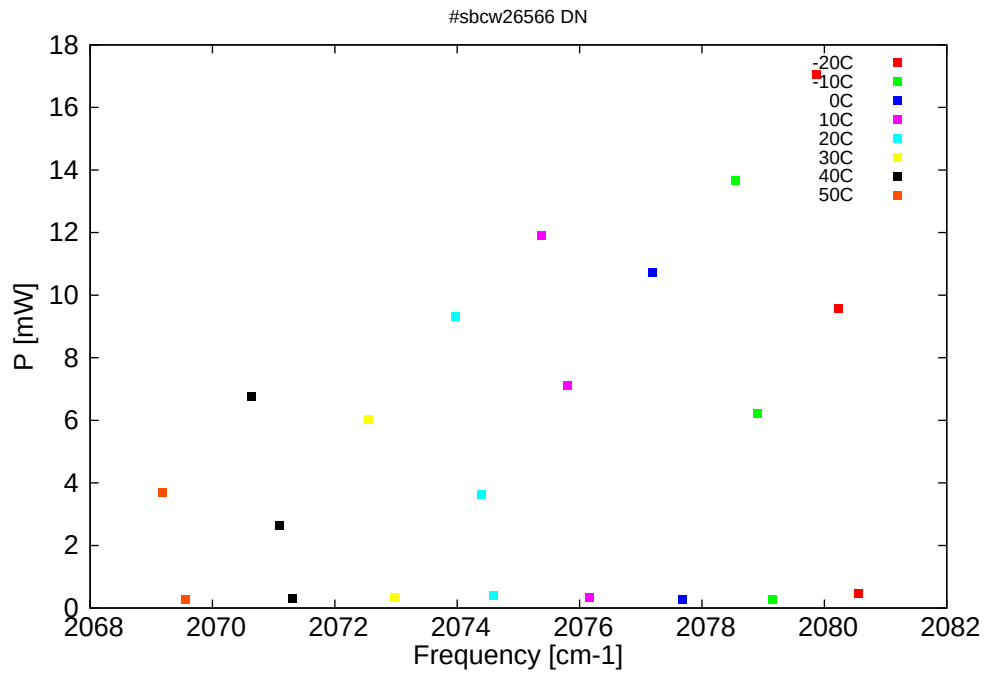


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

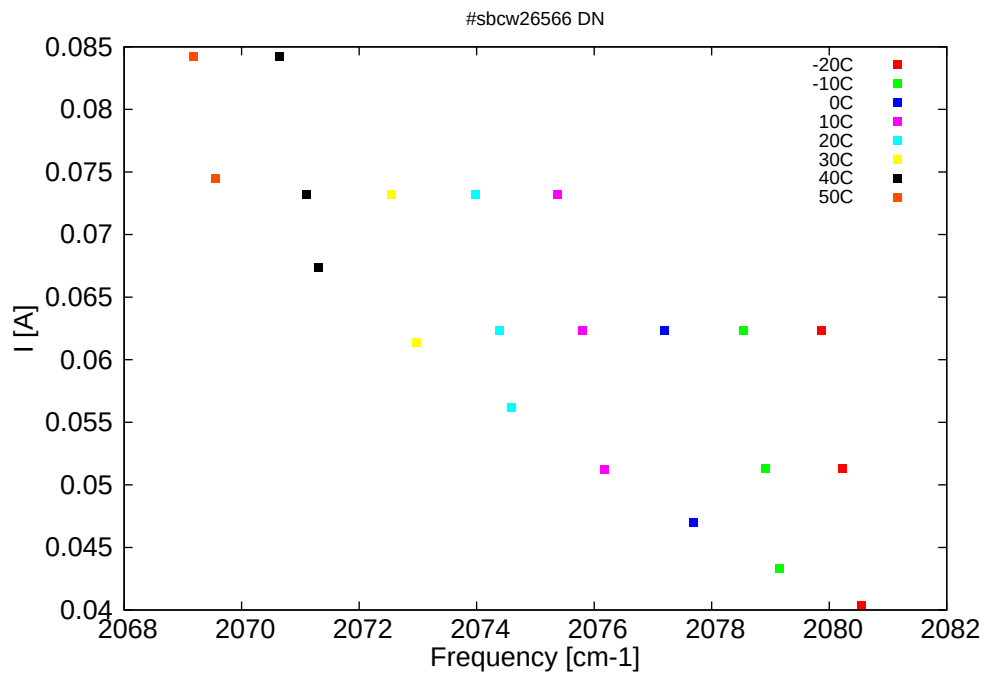


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4806.4	2080.6	0.5	-20	12.07	0.04
4807.2	2080.2	9.6	-20	12.49	0.051
4808	2079.9	17	-20	12.88	0.062
4809.7	2079.2	0.3	-10	12.04	0.043
4810.2	2078.9	6.2	-10	12.33	0.051
4811.1	2078.5	13.7	-10	12.72	0.062
4813.1	2077.7	0.3	0	12.05	0.047
4814.2	2077.2	10.7	0	12.57	0.062
4816.6	2076.2	0.3	10	12.08	0.051
4817.4	2075.8	7.1	10	12.43	0.062
4818.4	2075.4	11.9	10	12.8	0.073
4820.2	2074.6	0.4	20	12.14	0.056
4820.7	2074.4	3.6	20	12.3	0.062
4821.6	2074	9.3	20	12.65	0.073
4824	2073	0.3	30	12.2	0.061
4825	2072.6	6	30	12.52	0.073
4827.9	2071.3	0.3	40	12.29	0.067
4828.4	2071.1	2.6	40	12.41	0.073
4829.4	2070.6	6.8	40	12.72	0.084
4832	2069.6	0.3	50	12.41	0.075
4832.8	2069.2	3.7	50	12.6	0.084

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

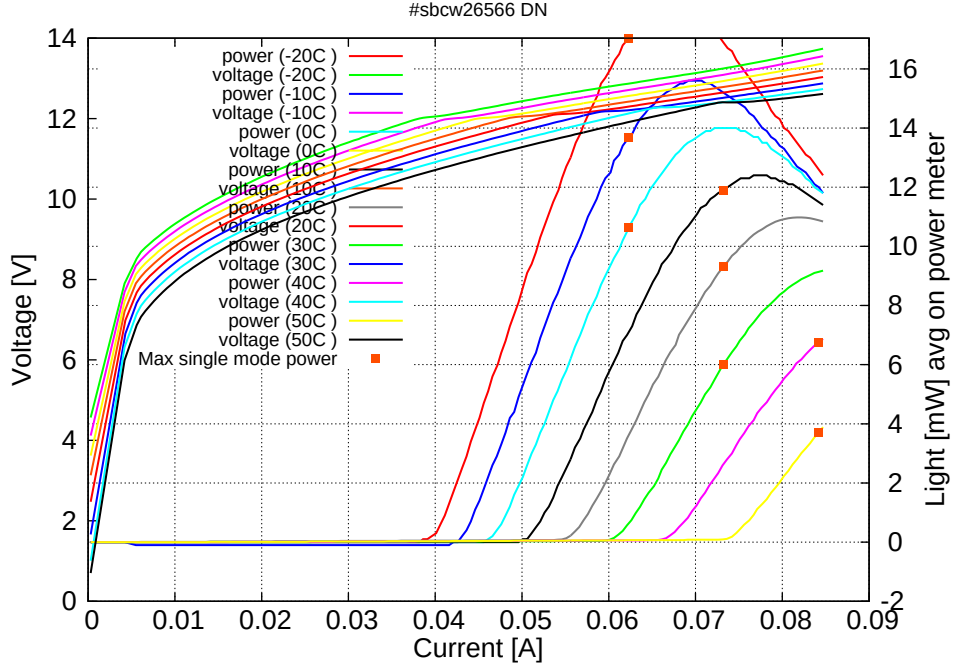


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.04A$ / $V_{th}=12.0V$ (2-wires measurements). Maximum operation

current: 0.065A between -20C and 0C, 0.075A between 10C and 30C, 0.085A between 40C and 50C.

Figure 3: spectra at different temperatures for various DC currents

