

Datasheet for #sbcw26546 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 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 #sbcw26546 DN (please note that AlN submount numbering is A0YP7)

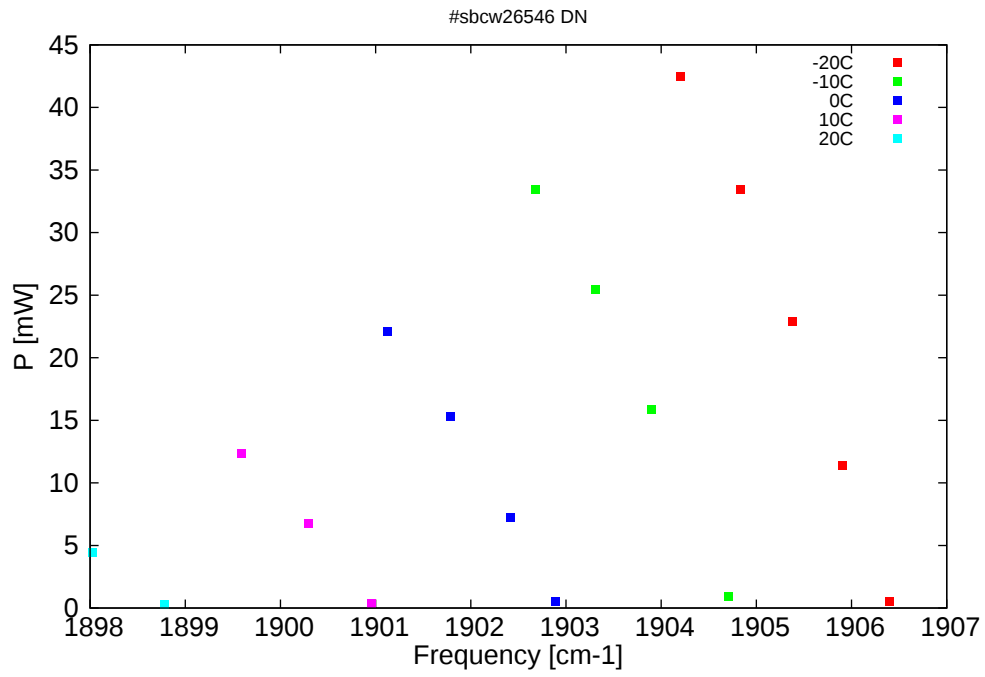


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

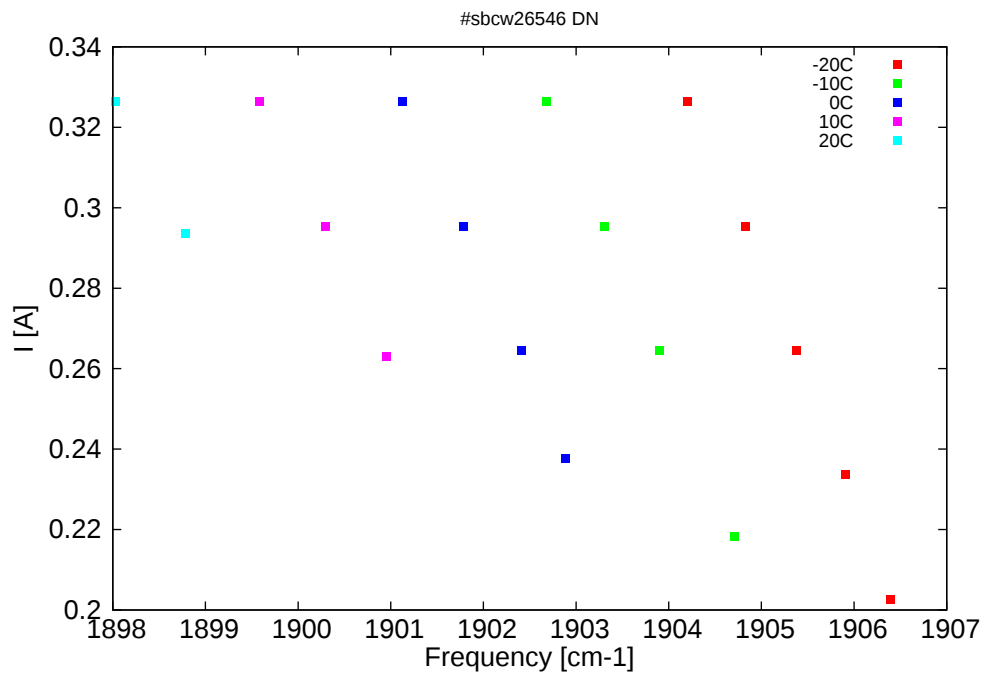


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5245.5	1906.4	0.5	-20	8.05	0.203
5246.8	1905.9	11.4	-20	8.26	0.234
5248.3	1905.4	22.9	-20	8.49	0.265
5249.8	1904.8	33.5	-20	8.67	0.295
5251.5	1904.2	42.5	-20	8.88	0.326
5250.1	1904.7	1	-10	8.09	0.218
5252.4	1903.9	15.9	-10	8.4	0.265
5254	1903.3	25.4	-10	8.59	0.295
5255.7	1902.7	33.4	-10	8.82	0.326
5255.2	1902.9	0.5	0	8.11	0.238
5256.5	1902.4	7.2	0	8.3	0.265
5258.2	1901.8	15.3	0	8.49	0.295
5260	1901.1	22.1	0	8.71	0.326
5260.5	1901	0.3	10	8.21	0.263
5262.3	1900.3	6.8	10	8.42	0.295
5264.3	1899.6	12.4	10	8.64	0.326
5266.5	1898.8	0.3	20	8.37	0.294
5268.6	1898	4.5	20	8.61	0.326

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

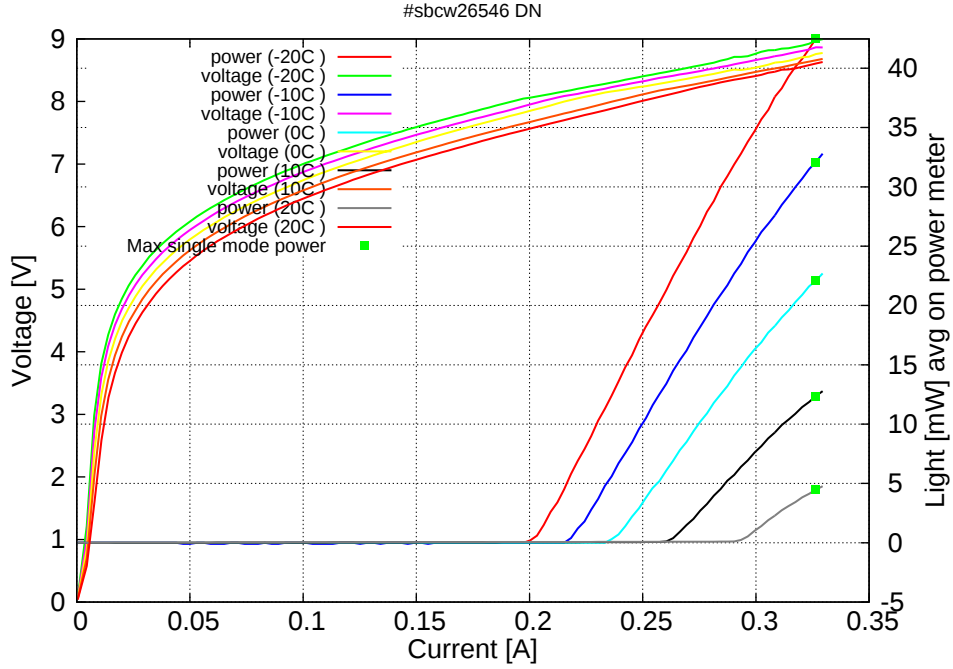


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20°C: $I_{th}=0.20\text{A}$ / $V_{th}=8.1\text{V}$ (2-wires measurements). Maximum operation current: 0.33A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

