

**Datasheet for #sbcw26823 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.

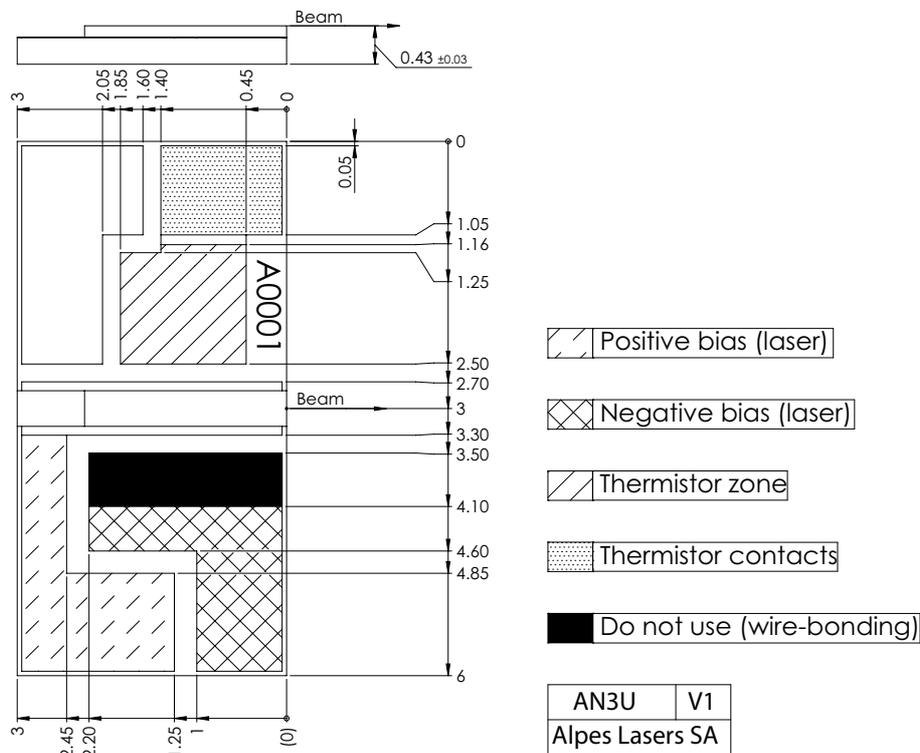


Figure 1: Mechanical and electrical interface for #sbcw26823 DN (please note that AlN submount numbering is A0WGF)

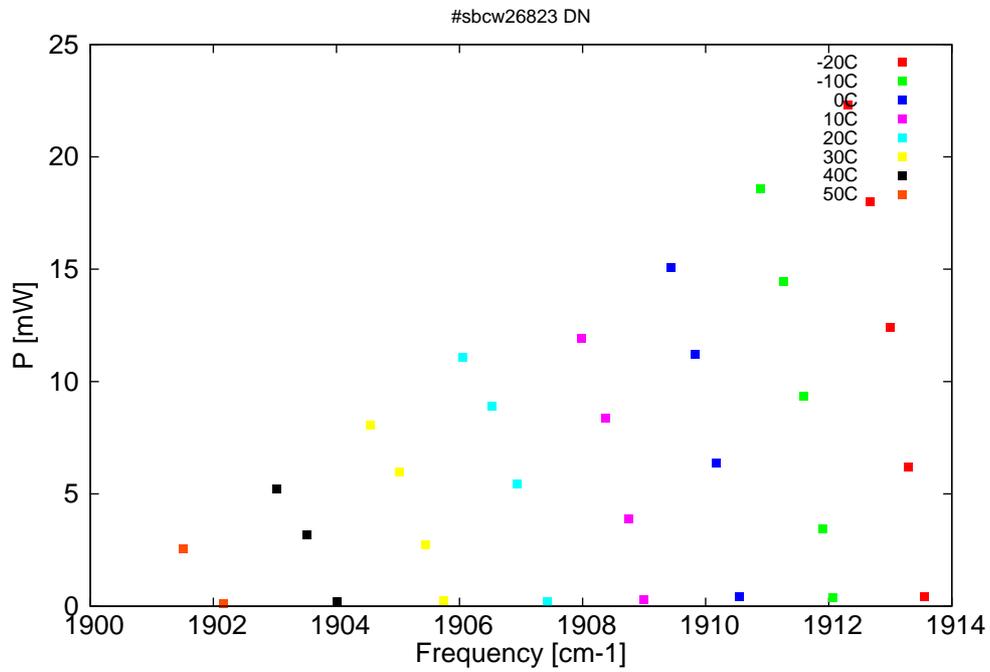


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

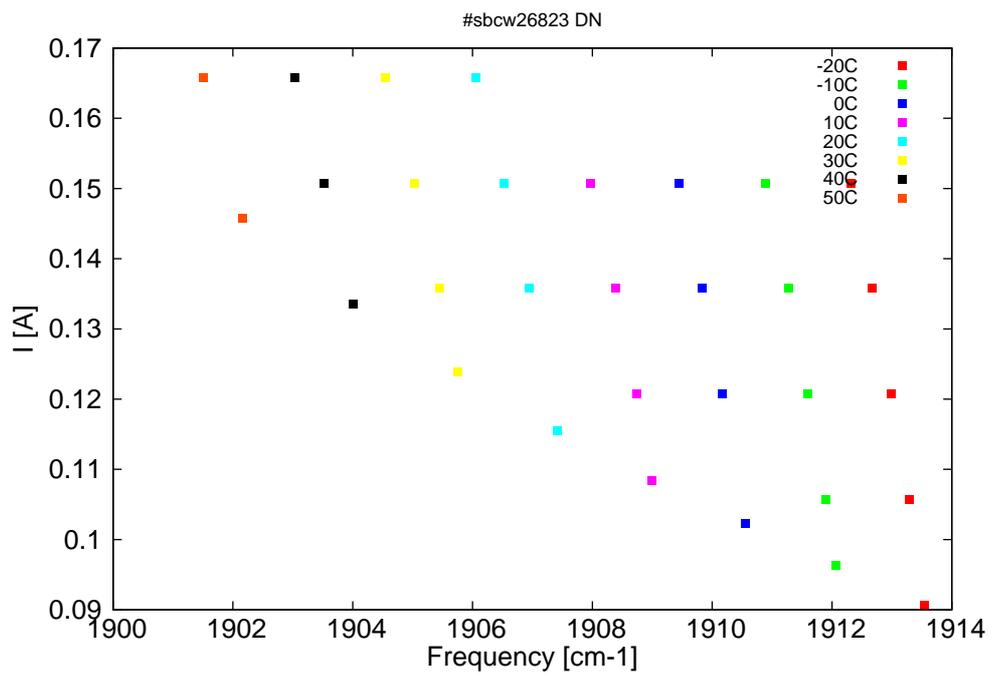


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda$ [nm]	$\nu$ [cm <sup>-1</sup> ]	P[mW]	Temp[°C]	$U_{LASER}$ [V]	I[A]
5225.9	1913.5	0.4	-20	7.81	0.091
5226.6	1913.3	6.2	-20	8.01	0.106
5227.4	1913	12.4	-20	8.23	0.121
5228.3	1912.7	18	-20	8.46	0.136
5229.3	1912.3	22.3	-20	8.73	0.151
5229.9	1912.1	0.4	-10	7.85	0.096
5230.4	1911.9	3.4	-10	7.98	0.106
5231.2	1911.6	9.4	-10	8.2	0.121
5232.1	1911.3	14.5	-10	8.44	0.136
5233.2	1910.9	18.6	-10	8.71	0.151
5234.1	1910.6	0.4	0	7.91	0.102
5235.1	1910.2	6.4	0	8.18	0.121
5236.1	1909.8	11.2	0	8.42	0.136
5237.1	1909.4	15.1	0	8.69	0.151
5238.3	1909	0.3	10	7.97	0.108
5239	1908.7	3.9	10	8.16	0.121
5240	1908.4	8.4	10	8.4	0.136
5241.1	1908	11.9	10	8.67	0.151
5242.7	1907.4	0.2	20	8.06	0.116
5244	1906.9	5.4	20	8.38	0.136
5245.2	1906.5	8.9	20	8.65	0.151
5246.4	1906.1	11.1	20	8.94	0.166
5247.3	1905.7	0.3	30	8.17	0.124
5248.1	1905.4	2.7	30	8.36	0.136
5249.3	1905	6	30	8.63	0.151
5250.6	1904.5	8.1	30	8.92	0.166
5252.1	1904	0.2	40	8.31	0.134
5253.4	1903.5	3.2	40	8.61	0.151
5254.8	1903	5.2	40	8.89	0.166
5257.2	1902.2	0.1	50	8.5	0.146
5259	1901.5	2.6	50	8.87	0.166

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

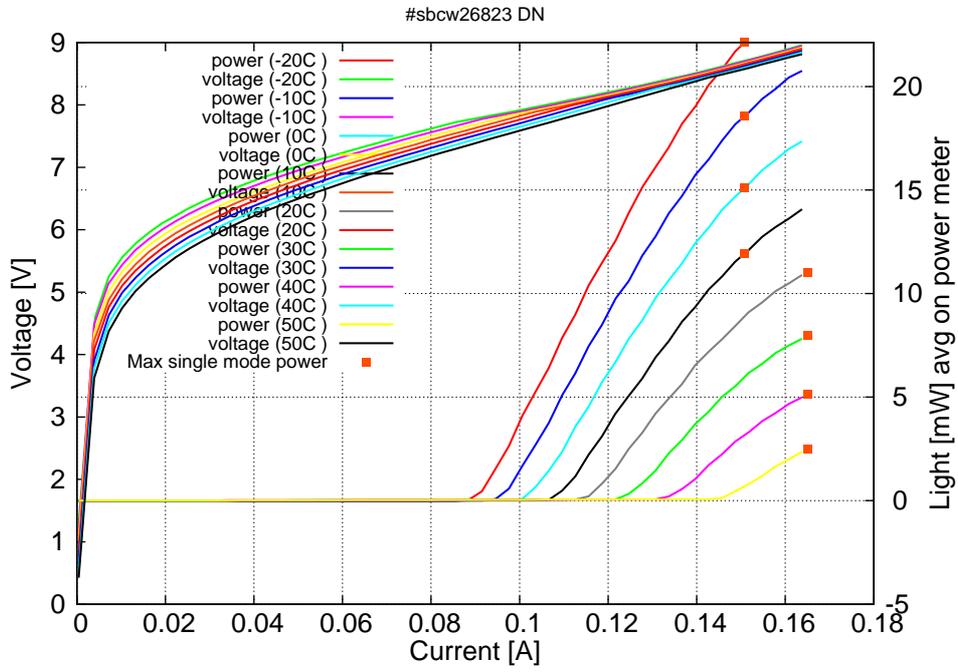


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C:  $I_{th}=0.09A$  /  $V_{th}=7.8V$  (2-wires measurements). Maximum operation current: 0.15A between -20C and 10C, 0.165A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

