

Datasheet for #sbcw26544 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.

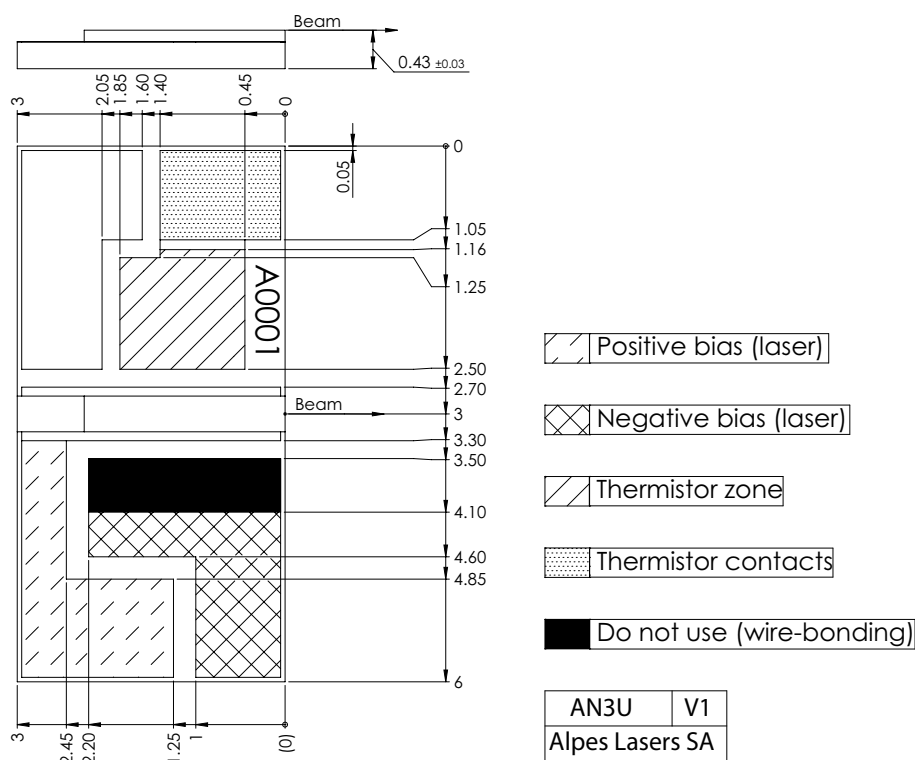


Figure 1: Mechanical and electrical interface for #sbcw26544 DN (please note that AlN submount numbering is A0U99)

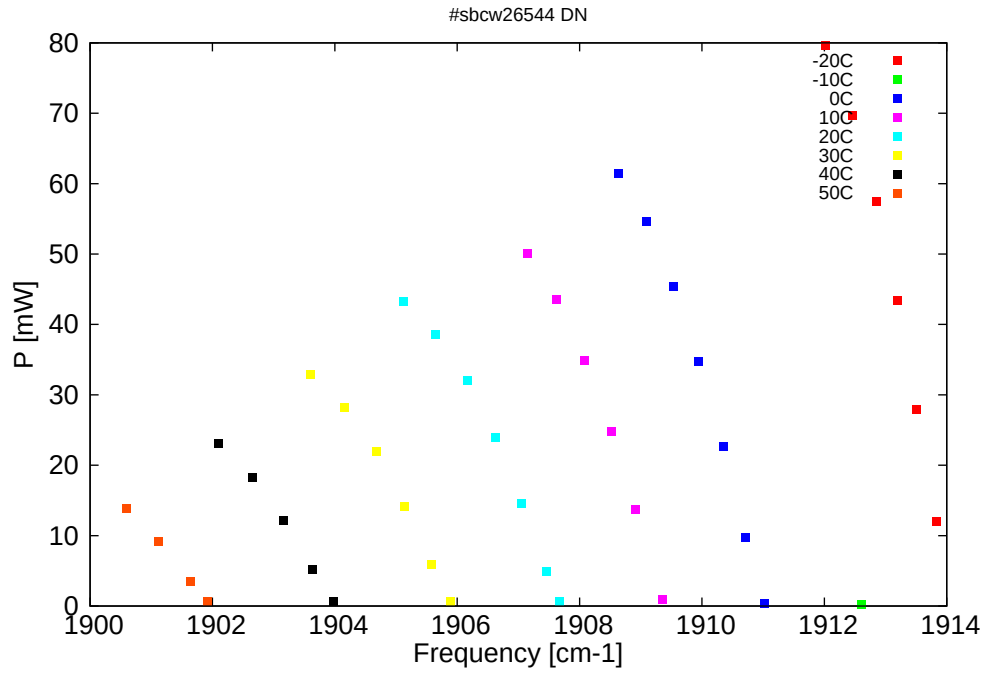


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

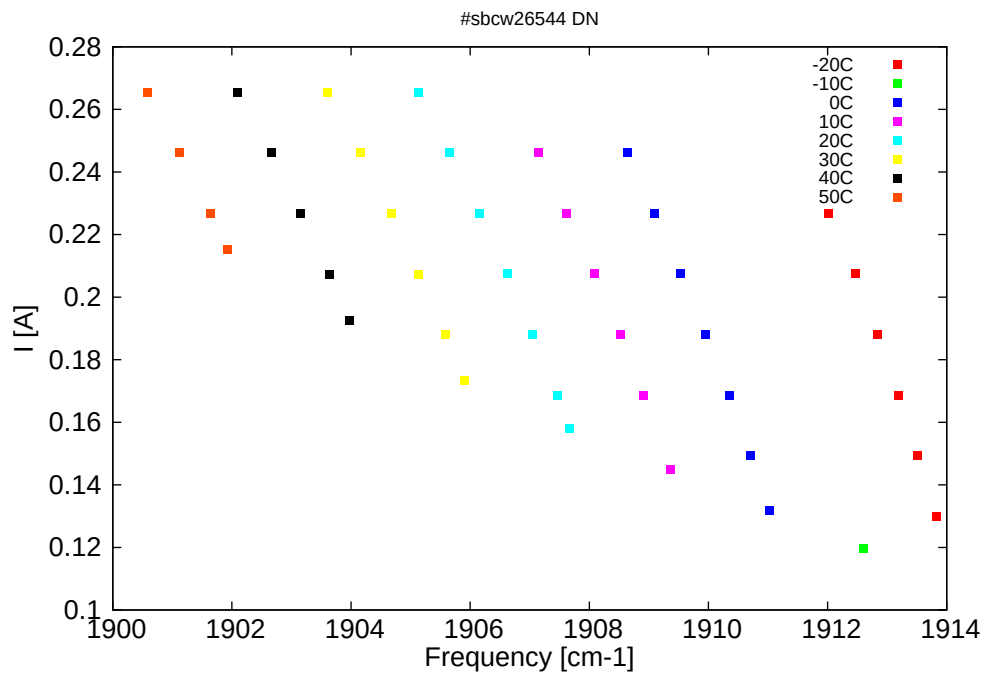


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5225.1	1913.8	12	-20	7.87	0.13
5226	1913.5	27.9	-20	8.04	0.149
5226.9	1913.2	43.4	-20	8.21	0.169
5227.8	1912.8	57.5	-20	8.38	0.188
5228.9	1912.5	69.7	-20	8.56	0.207
5230.1	1912	79.7	-20	8.75	0.227
5228.5	1912.6	0.2	-10	7.71	0.12
5232.8	1911	0.4	0	7.74	0.132
5233.7	1910.7	9.8	0	7.88	0.149
5234.6	1910.4	22.7	0	8.05	0.169
5235.7	1910	34.8	0	8.22	0.188
5236.9	1909.5	45.3	0	8.39	0.207
5238.1	1909.1	54.6	0	8.57	0.227
5239.3	1908.6	61.4	0	8.76	0.246
5237.4	1909.4	0.9	10	7.8	0.145
5238.6	1908.9	13.7	10	7.99	0.169
5239.6	1908.5	24.8	10	8.16	0.188
5240.9	1908.1	34.9	10	8.33	0.207
5242.2	1907.6	43.6	10	8.51	0.227
5243.4	1907.1	50.1	10	8.69	0.246
5242	1907.7	0.7	20	7.85	0.158
5242.6	1907.5	4.9	20	7.93	0.169
5243.7	1907	14.6	20	8.09	0.188
5244.8	1906.6	24	20	8.26	0.207
5246.1	1906.2	32.1	20	8.43	0.227
5247.6	1905.6	38.5	20	8.61	0.246
5249	1905.1	43.3	20	8.8	0.265
5246.9	1905.9	0.6	30	7.9	0.173
5247.7	1905.6	5.8	30	8.02	0.188
5249	1905.1	14.2	30	8.18	0.207
5250.2	1904.7	21.9	30	8.35	0.227
5251.7	1904.2	28.2	30	8.52	0.246
5253.2	1903.6	33	30	8.7	0.265
5252.2	1904	0.6	40	8.04	0.193
5253.1	1903.6	5.2	40	8.16	0.207
5254.4	1903.2	12.1	40	8.32	0.227
5255.8	1902.7	18.2	40	8.49	0.246
5257.4	1902.1	23.1	40	8.67	0.265
5257.8	1901.9	0.6	50	8.16	0.215
5258.6	1901.6	3.5	50	8.25	0.227
5260.1	1901.1	9.1	50	8.41	0.246
5261.5	1900.6	13.9	50	8.58	0.265

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

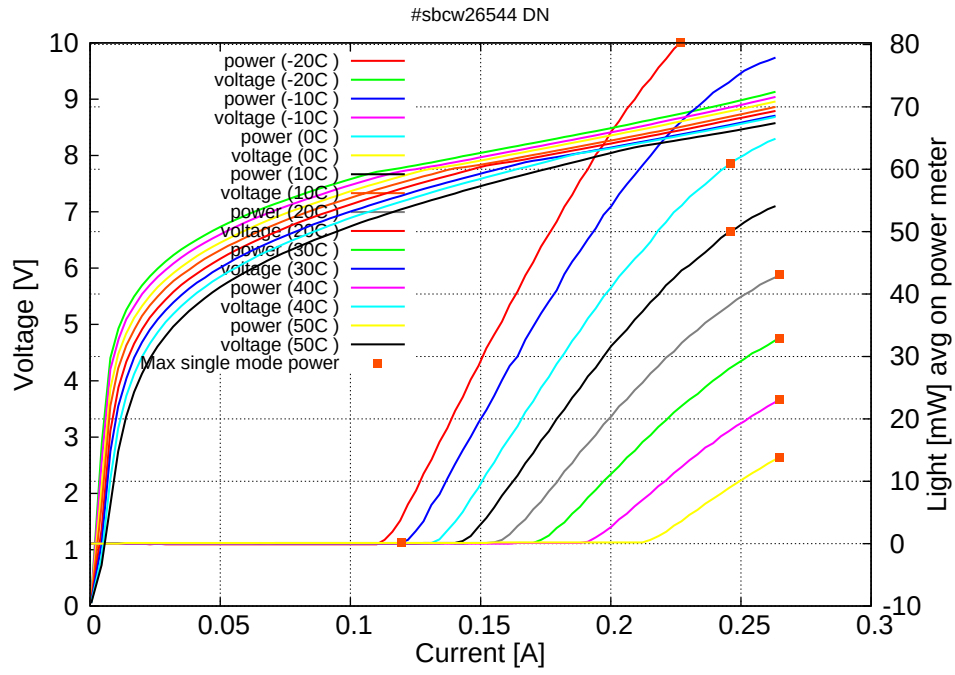


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=7.7V$ (2-wires measurements). Maximum operation current: 0.225A between -20C and -10C, 0.245A between 0C and 10C, 0.265A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

