

Datasheet for #sbcw26545 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.

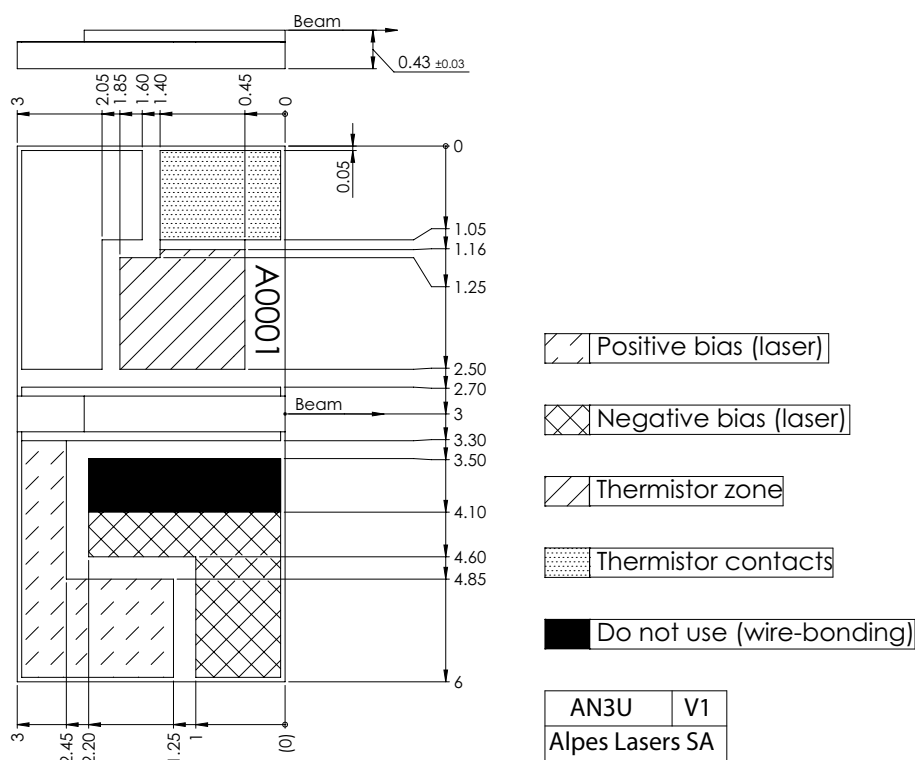


Figure 1: Mechanical and electrical interface for #sbcw26545 DN (please note that AlN submount numbering is A0YMF)

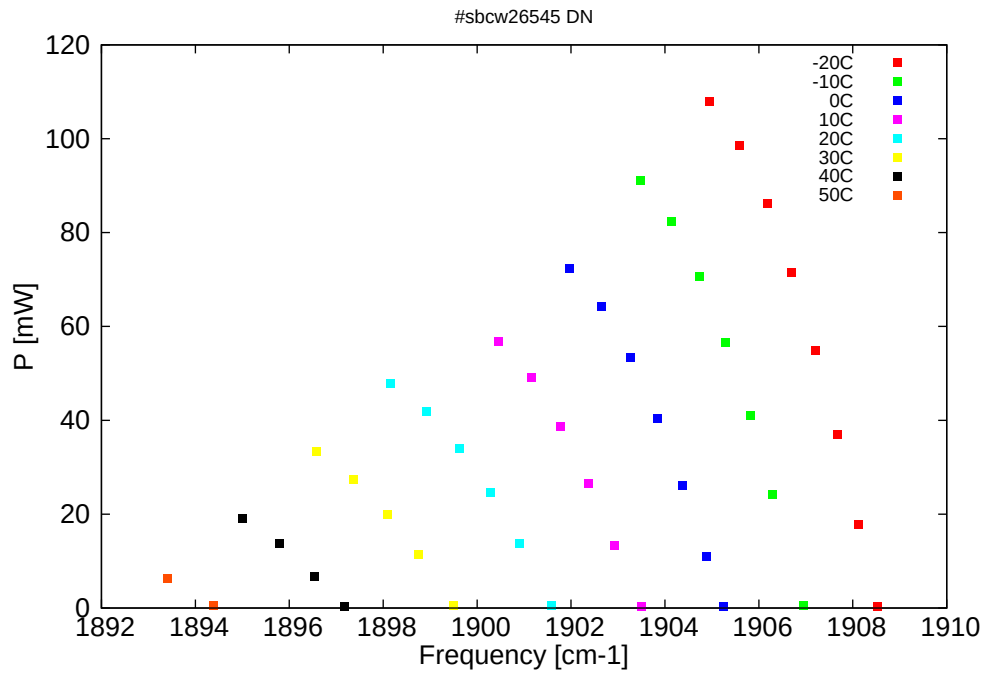


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

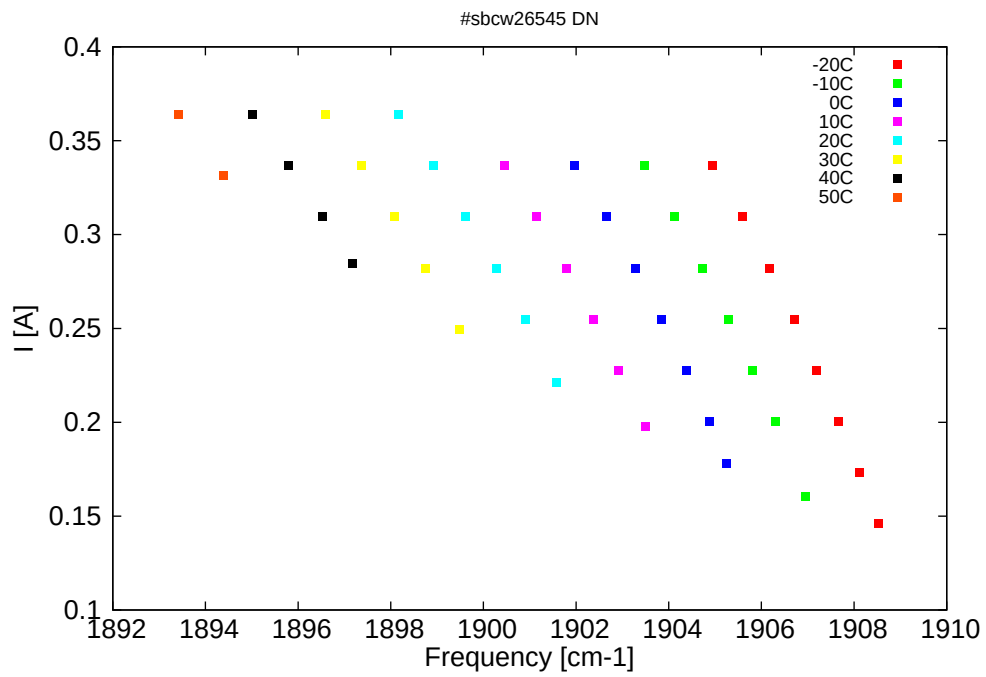


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5239.6	1908.5	0.2	-20	7.51	0.146
5240.8	1908.1	17.8	-20	7.66	0.173
5242	1907.7	36.9	-20	7.82	0.2
5243.3	1907.2	54.9	-20	7.98	0.228
5244.7	1906.7	71.6	-20	8.15	0.255
5246.1	1906.2	86.2	-20	8.31	0.282
5247.7	1905.6	98.5	-20	8.48	0.31
5249.5	1905	108	-20	8.67	0.337
5244	1906.9	0.6	-10	7.53	0.161
5245.8	1906.3	24.2	-10	7.75	0.2
5247.1	1905.8	41	-10	7.91	0.228
5248.6	1905.3	56.6	-10	8.07	0.255
5250.1	1904.7	70.6	-10	8.23	0.282
5251.7	1904.1	82.3	-10	8.4	0.31
5253.5	1903.5	91	-10	8.58	0.337
5248.6	1905.3	0.4	0	7.57	0.178
5249.7	1904.9	11	0	7.69	0.2
5251.1	1904.4	26.1	0	7.85	0.228
5252.6	1903.8	40.4	0	8.01	0.255
5254.1	1903.3	53.4	0	8.17	0.282
5255.8	1902.7	64.3	0	8.34	0.31
5257.7	1902	72.4	0	8.51	0.337
5253.5	1903.5	0.3	10	7.63	0.198
5255.1	1902.9	13.2	10	7.79	0.228
5256.6	1902.4	26.5	10	7.94	0.255
5258.2	1901.8	38.7	10	8.11	0.282
5260	1901.2	49.1	10	8.27	0.31
5261.9	1900.5	56.9	10	8.45	0.337
5258.8	1901.6	0.5	20	7.71	0.221
5260.6	1900.9	13.7	20	7.89	0.255
5262.4	1900.3	24.7	20	8.05	0.282
5264.2	1899.6	34.1	20	8.21	0.31
5266.1	1898.9	41.8	20	8.38	0.337
5268.3	1898.2	47.9	20	8.56	0.364
5264.6	1899.5	0.6	30	7.81	0.249
5266.6	1898.8	11.3	30	7.99	0.282
5268.5	1898.1	20	30	8.15	0.31
5270.5	1897.4	27.5	30	8.32	0.337
5272.6	1896.6	33.4	30	8.49	0.364
5271	1897.2	0.4	40	7.96	0.285
5272.8	1896.5	6.7	40	8.1	0.31
5274.8	1895.8	13.7	40	8.26	0.337
5277	1895	19.2	40	8.43	0.364
5278.7	1894.4	0.5	50	8.18	0.331
5281.5	1893.4	6.4	50	8.37	0.364

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

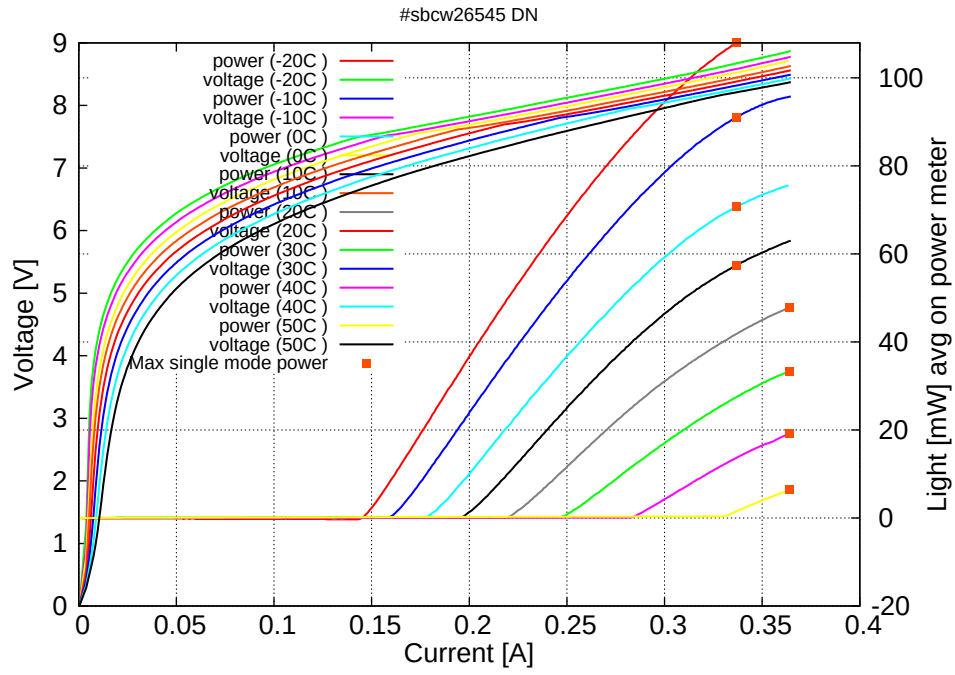


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.14A$ / $V_{th}=7.5V$ (2-wires measurements). Maximum operation current: 0.34A between -20C and 10C, 0.365A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

