

Datasheet for #sbcw26493 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.

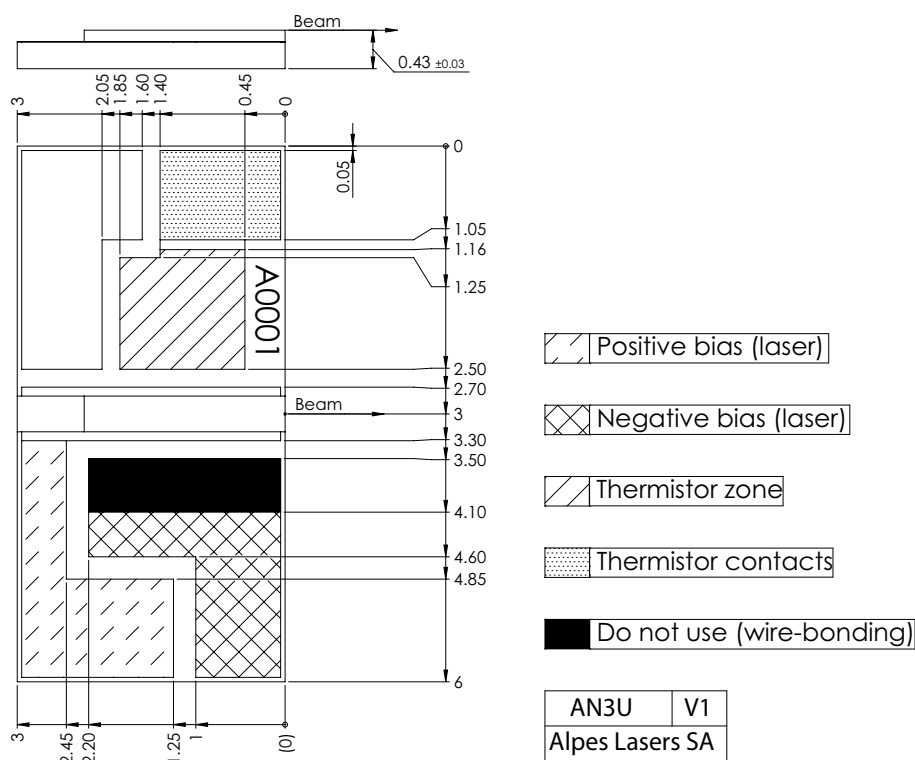


Figure 1: Mechanical and electrical interface for #sbcw26493 DN (please note that AlN submount numbering is A0V7H)

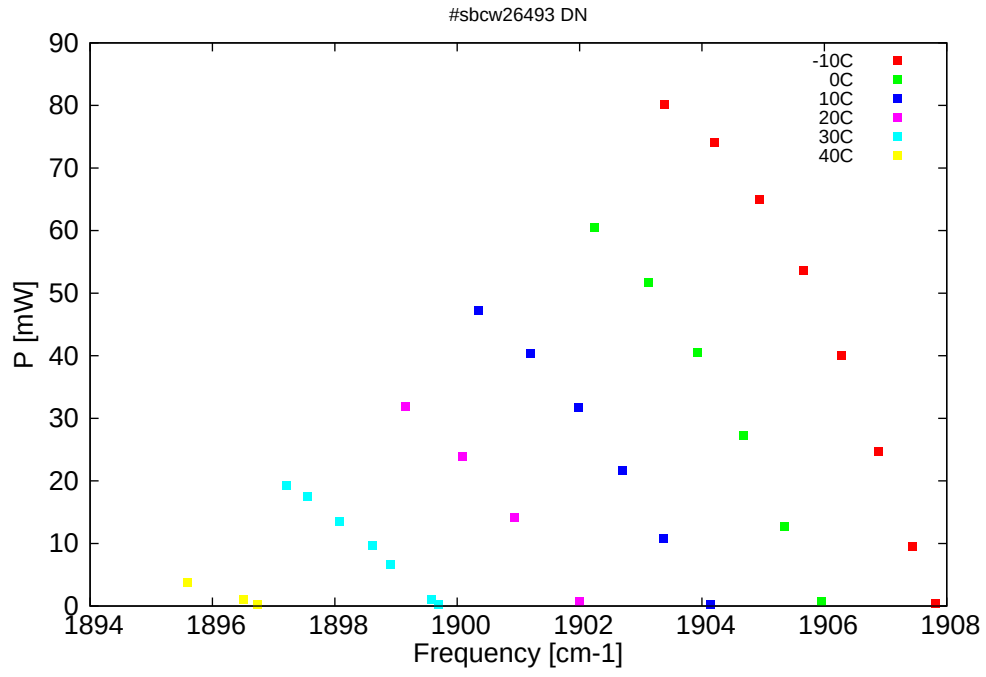


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

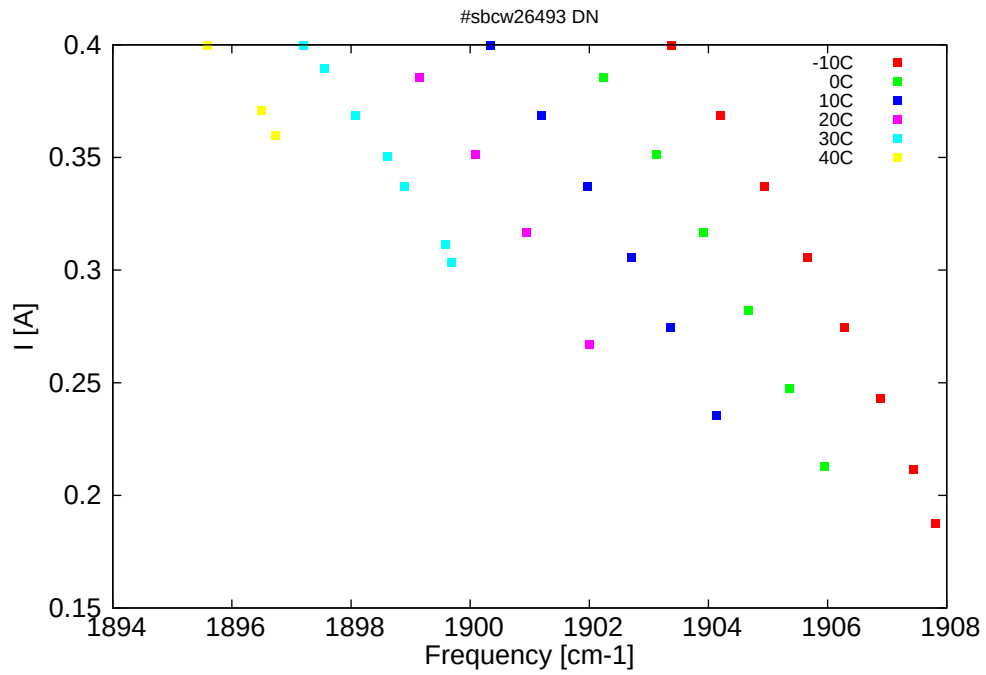


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5241.6	1907.8	0.5	-10	7.62	0.188
5242.6	1907.4	9.4	-10	7.75	0.212
5244.2	1906.9	24.7	-10	7.93	0.243
5245.8	1906.3	40	-10	8.13	0.274
5247.5	1905.7	53.7	-10	8.33	0.306
5249.5	1904.9	65	-10	8.53	0.337
5251.5	1904.2	74	-10	8.73	0.369
5253.8	1903.4	80.1	-10	8.95	0.4
5246.7	1906	0.8	0	7.68	0.213
5248.4	1905.4	12.7	0	7.87	0.248
5250.2	1904.7	27.2	0	8.08	0.282
5252.3	1903.9	40.5	0	8.3	0.317
5254.5	1903.1	51.6	0	8.52	0.351
5257	1902.2	60.5	0	8.75	0.386
5251.7	1904.1	0.3	10	7.75	0.235
5253.8	1903.4	10.8	10	7.96	0.274
5255.7	1902.7	21.6	10	8.15	0.306
5257.7	1902	31.7	10	8.35	0.337
5259.9	1901.2	40.3	10	8.55	0.369
5262.2	1900.3	47.3	10	8.76	0.4
5257.6	1902	0.8	20	7.86	0.267
5260.6	1900.9	14.2	20	8.14	0.317
5262.9	1900.1	23.9	20	8.36	0.351
5265.5	1899.2	31.9	20	8.58	0.386
5264	1899.7	0.3	30	7.99	0.303
5264.3	1899.6	1.1	30	8.01	0.311
5266.2	1898.9	6.6	30	8.18	0.337
5267	1898.6	9.6	30	8.23	0.35
5268.5	1898.1	13.5	30	8.38	0.369
5269.9	1897.6	17.5	30	8.48	0.39
5270.9	1897.2	19.2	30	8.58	0.4
5272.2	1896.7	0.3	40	8.28	0.36
5272.9	1896.5	1	40	8.31	0.371
5275.4	1895.6	3.8	40	8.53	0.4

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

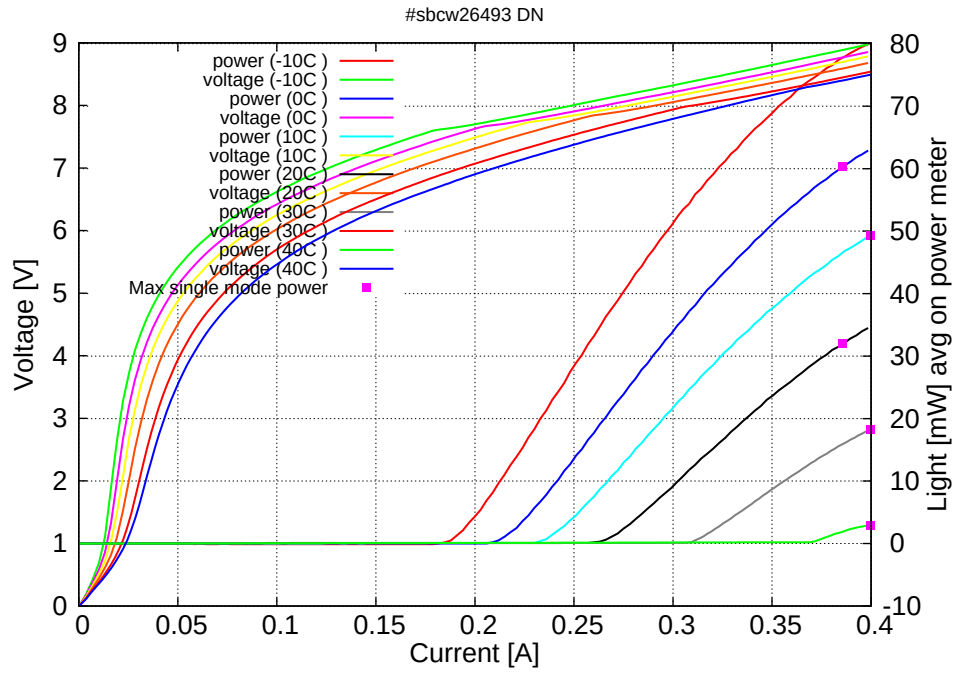


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.19A$ / $V_{th}=7.6V$ (2-wires measurements). Maximum operation current: 0.40A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

