

Datasheet for #sbcw25618 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.

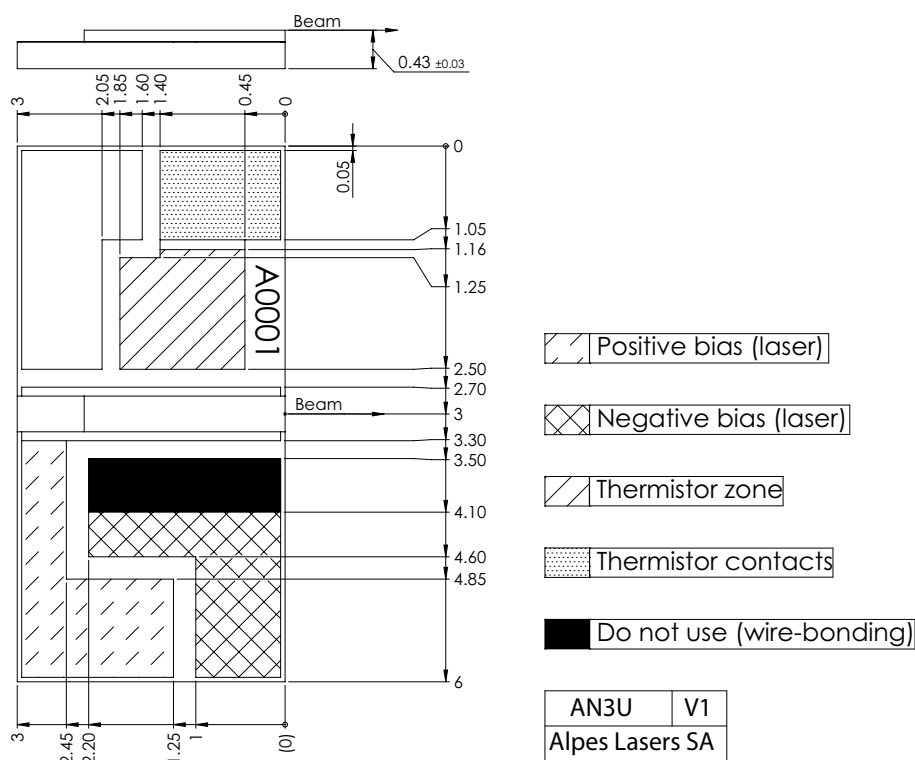


Figure 1: Mechanical and electrical interface for #sbcw25618 DN (please note that AlN submount numbering is A12N5)

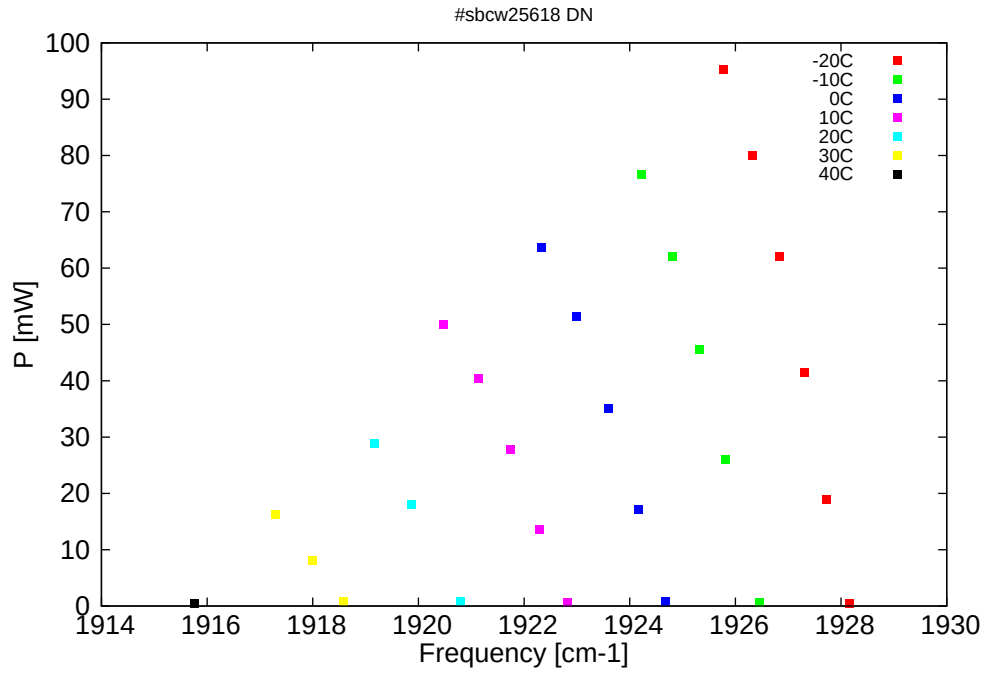


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

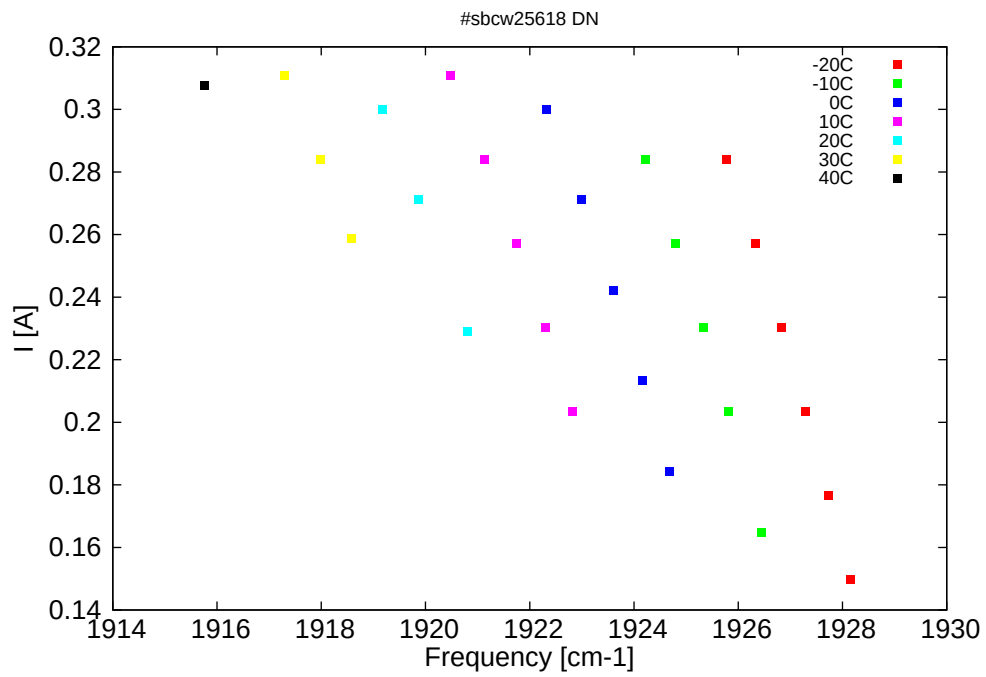


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5186.3	1928.2	0.5	-20	7.91	0.15
5187.5	1927.7	19	-20	8.1	0.177
5188.6	1927.3	41.4	-20	8.3	0.204
5189.9	1926.8	62	-20	8.5	0.23
5191.2	1926.3	80	-20	8.72	0.257
5192.7	1925.8	95.4	-20	8.94	0.284
5190.9	1926.4	0.6	-10	7.96	0.165
5192.6	1925.8	26	-10	8.24	0.204
5193.9	1925.3	45.5	-10	8.44	0.23
5195.3	1924.8	62.1	-10	8.66	0.257
5196.9	1924.2	76.7	-10	8.88	0.284
5195.7	1924.7	0.9	0	8.07	0.184
5197.1	1924.2	17.2	0	8.26	0.213
5198.6	1923.6	35.1	0	8.49	0.242
5200.2	1923	51.4	0	8.73	0.271
5202	1922.3	63.6	0	8.97	0.3
5200.7	1922.8	0.7	10	8.14	0.203
5202.1	1922.3	13.6	10	8.33	0.23
5203.6	1921.7	27.8	10	8.54	0.257
5205.2	1921.1	40.4	10	8.76	0.284
5207.1	1920.5	50	10	8.99	0.311
5206.2	1920.8	0.8	20	8.3	0.229
5208.7	1919.9	18	20	8.61	0.271
5210.6	1919.2	28.9	20	8.85	0.3
5212.2	1918.6	0.7	30	8.47	0.259
5213.8	1918	8.1	30	8.66	0.284
5215.7	1917.3	16.2	30	8.88	0.311
5219.9	1915.8	0.4	40	8.8	0.308

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

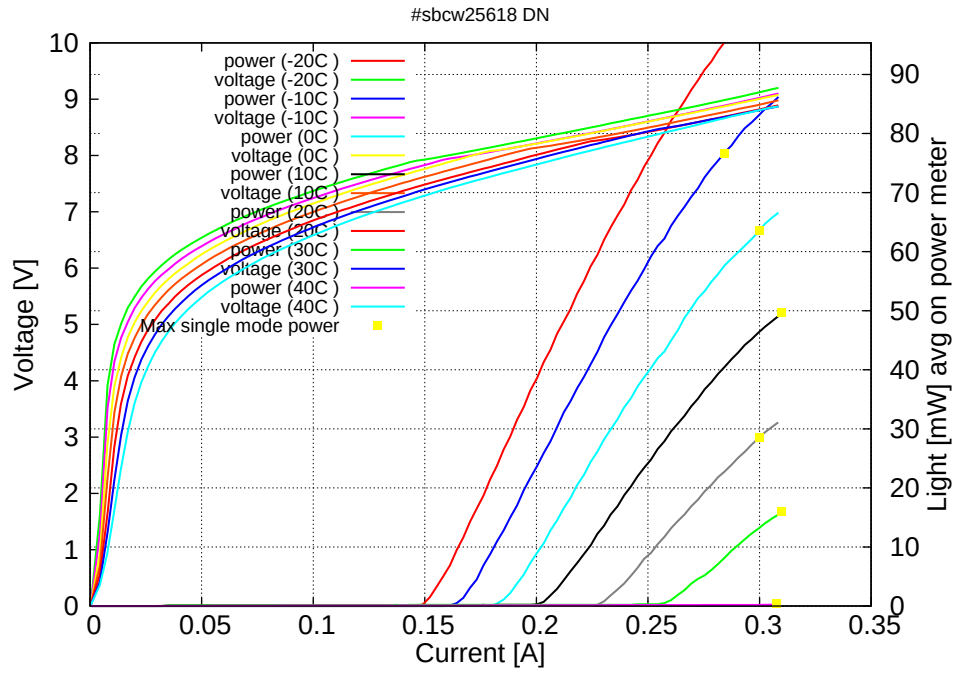


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=7.9V$ (2-wires measurements). Maximum operation current: 0.285A between -20C and -10C, 0.31A between 0C and 40C.

Figure 3: spectra at different temperatures for various DC currents

