

Datasheet for #sbcw25614 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.

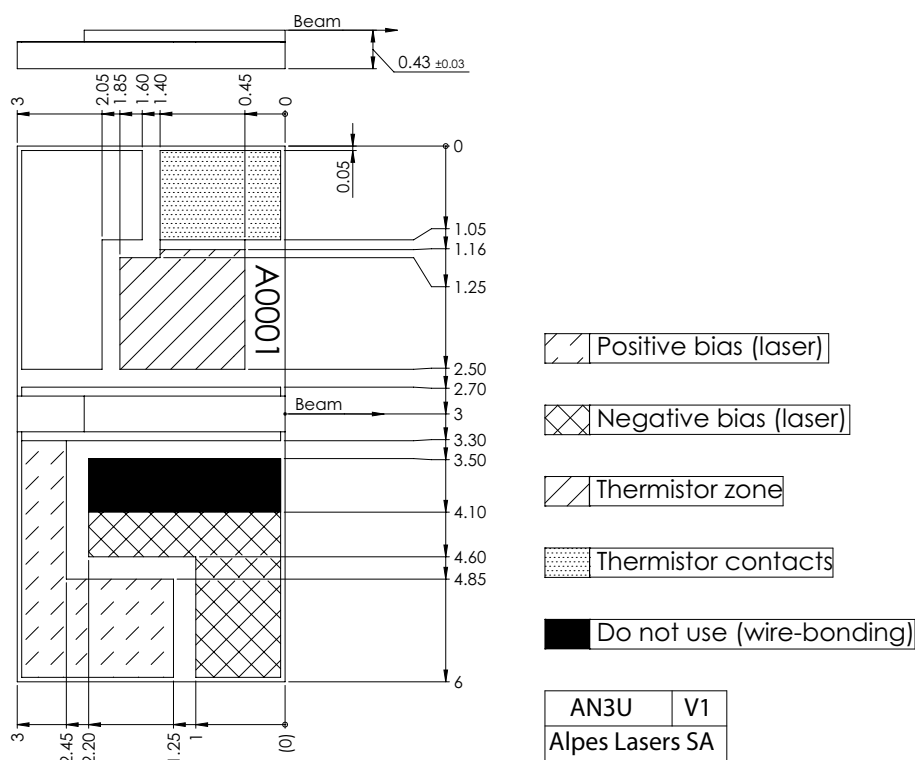


Figure 1: Mechanical and electrical interface for #sbcw25614 DN (please note that AlN submount numbering is A0ZYW)

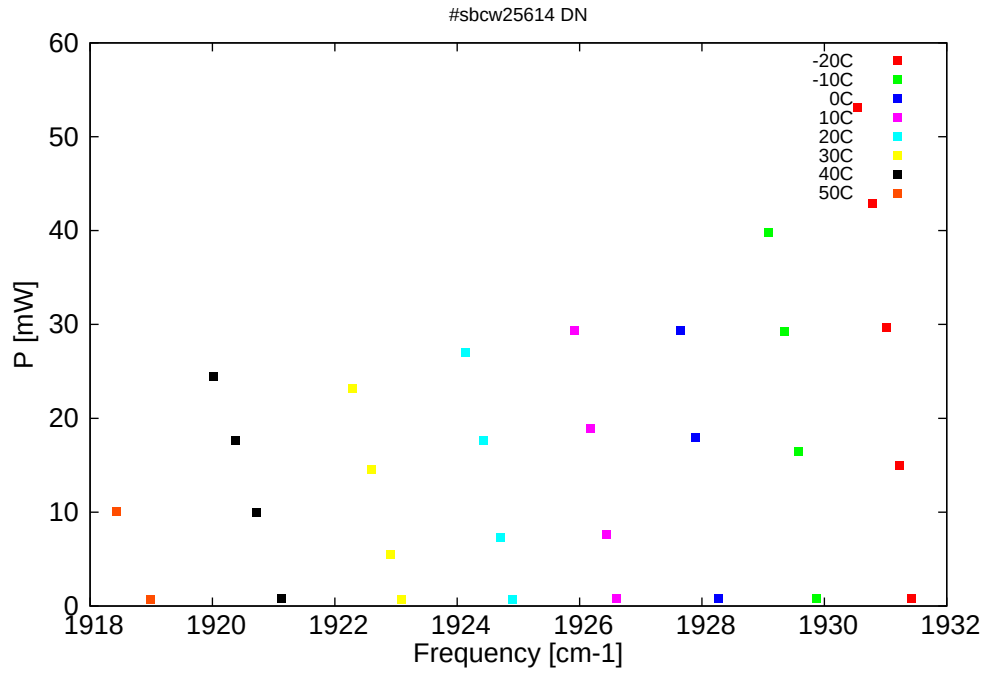


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

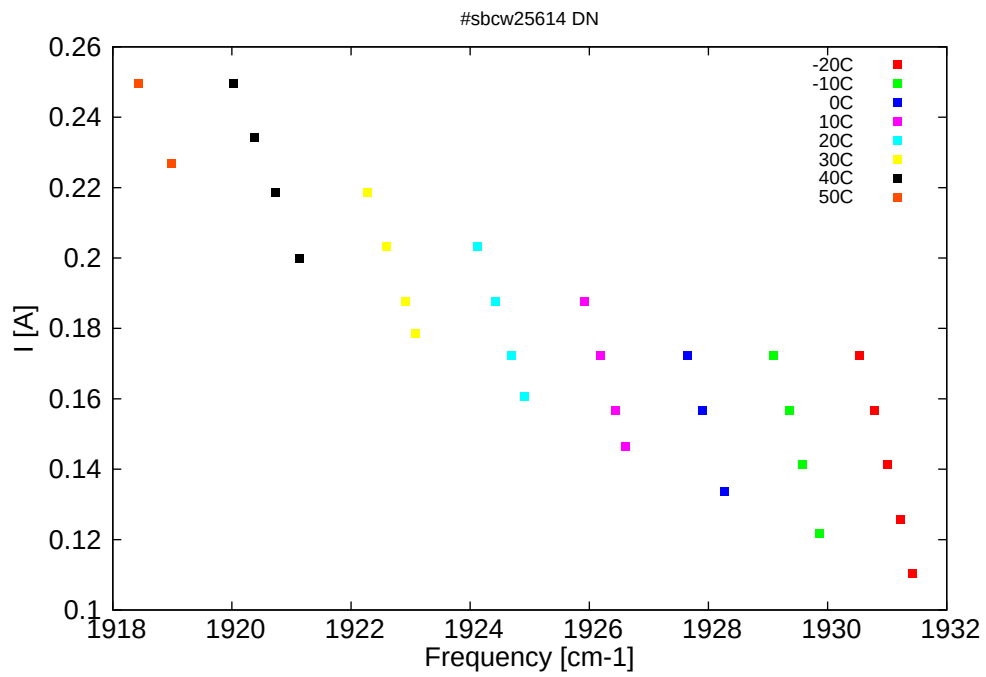


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5177.5	1931.4	0.8	-20	7.48	0.11
5178.1	1931.2	14.9	-20	7.59	0.126
5178.6	1931	29.7	-20	7.7	0.141
5179.2	1930.8	42.9	-20	7.8	0.157
5179.9	1930.5	53.1	-20	7.91	0.172
5181.7	1929.9	0.8	-10	7.52	0.122
5182.5	1929.6	16.4	-10	7.65	0.141
5183.1	1929.4	29.2	-10	7.76	0.157
5183.8	1929.1	39.9	-10	7.87	0.172
5186	1928.3	0.8	0	7.56	0.134
5187	1927.9	17.9	0	7.72	0.157
5187.7	1927.7	29.3	0	7.83	0.172
5190.5	1926.6	0.9	10	7.62	0.146
5190.9	1926.4	7.6	10	7.69	0.157
5191.6	1926.2	18.9	10	7.8	0.172
5192.3	1925.9	29.4	10	7.91	0.188
5195.1	1924.9	0.7	20	7.69	0.161
5195.6	1924.7	7.3	20	7.76	0.172
5196.4	1924.4	17.6	20	7.87	0.188
5197.2	1924.1	27	20	7.99	0.203
5200	1923.1	0.8	30	7.79	0.179
5200.4	1922.9	5.5	30	7.84	0.188
5201.3	1922.6	14.5	30	7.96	0.203
5202.2	1922.3	23.2	30	8.07	0.219
5205.3	1921.1	0.8	40	7.94	0.2
5206.4	1920.7	9.9	40	8.08	0.219
5207.3	1920.4	17.7	40	8.19	0.234
5208.3	1920	24.5	40	8.33	0.25
5211.1	1919	0.7	50	8.08	0.227
5212.6	1918.4	10.1	50	8.25	0.25

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

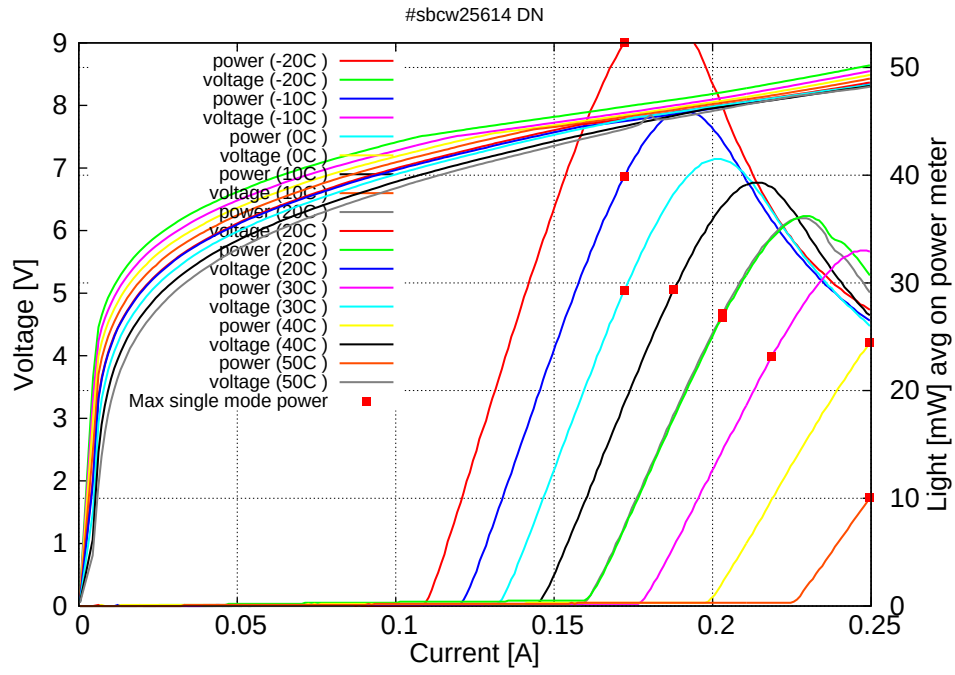


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.11A$ / $V_{th}=7.5V$ (2-wires measurements). Maximum operation current: 0.17A between -20C and 0C, 0.19A at 10C, 0.205A at 20C, 0.22A at 30C, 0.25A between 40C and 50C.

Figure 3: spectra at different temperatures for various DC currents

