

Datasheet for #sbcw25667 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.

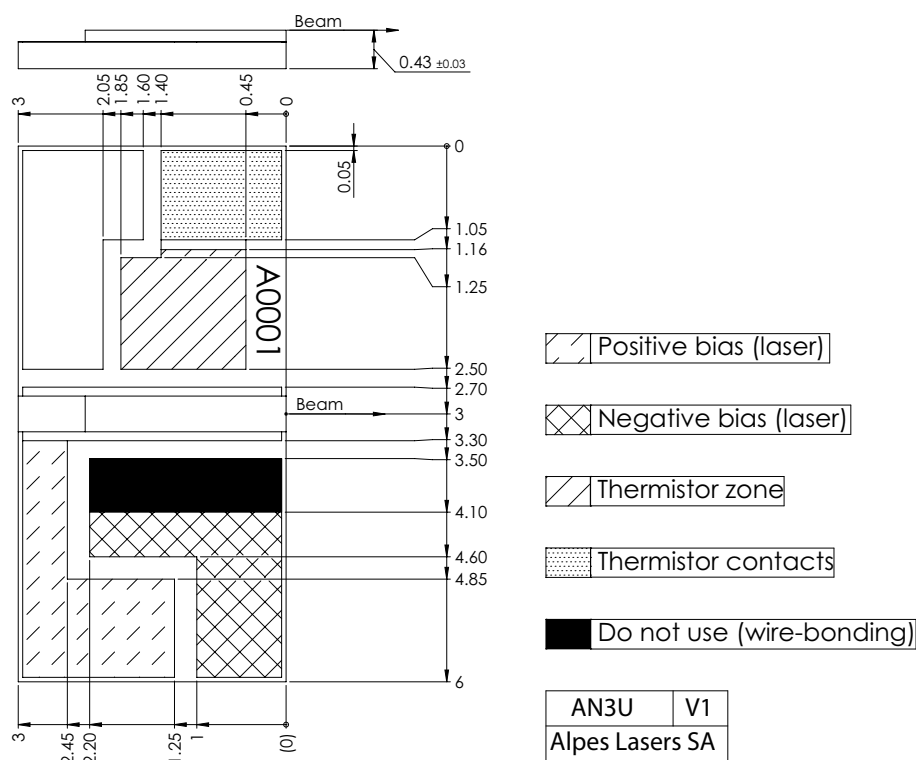


Figure 1: Mechanical and electrical interface for #sbcw25667 DN (please note that AlN submount numbering is A0UT4)

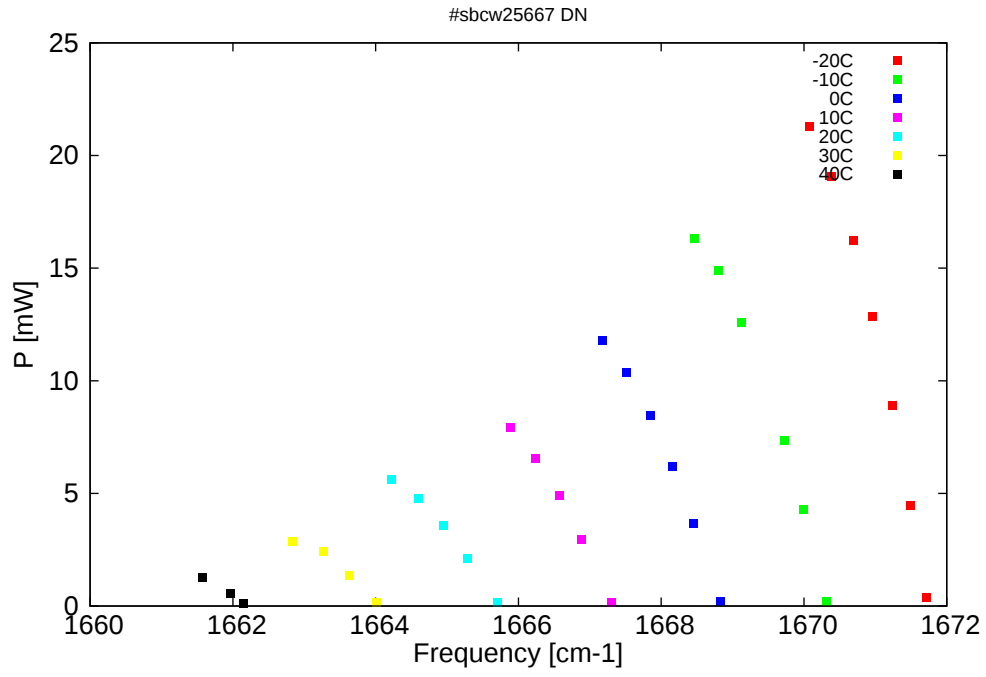


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

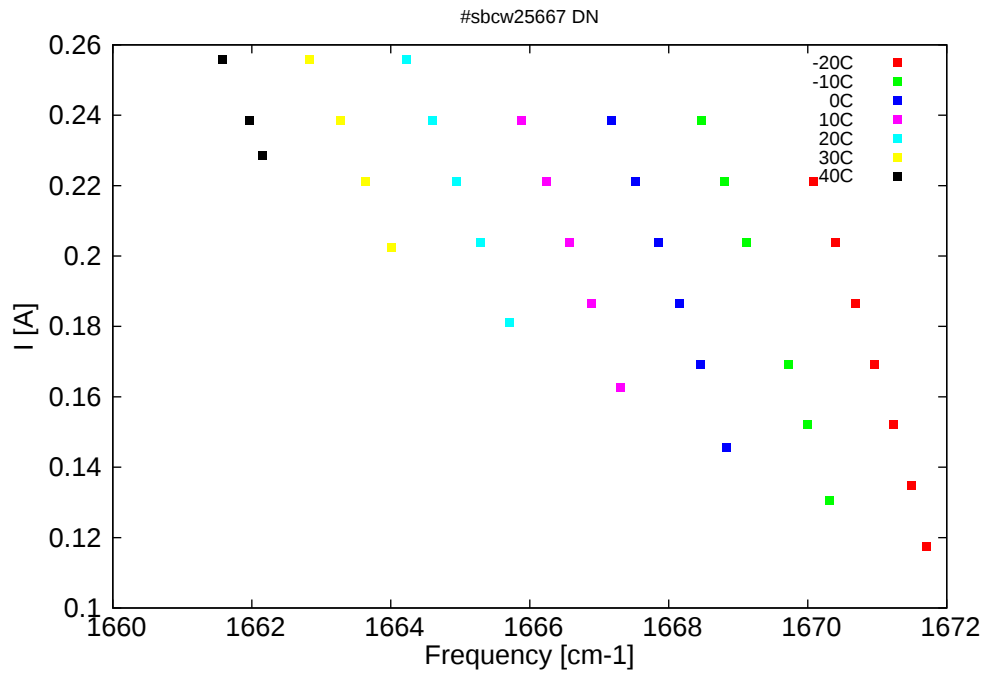


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
5981.9	1671.7	0.4	-20	9.63	0.118
5982.7	1671.5	4.5	-20	9.88	0.135
5983.6	1671.2	8.9	-20	10.12	0.152
5984.6	1671	12.9	-20	10.35	0.169
5985.6	1670.7	16.3	-20	10.57	0.187
5986.6	1670.4	19.1	-20	10.79	0.204
5987.7	1670.1	21.3	-20	11	0.221
5986.9	1670.3	0.2	-10	9.72	0.131
5988.1	1670	4.3	-10	10.02	0.152
5989	1669.7	7.4	-10	10.25	0.169
5991.2	1669.1	12.6	-10	10.69	0.204
5992.3	1668.8	14.9	-10	10.9	0.221
5993.5	1668.5	16.3	-10	11.12	0.238
5992.2	1668.8	0.2	0	9.83	0.146
5993.6	1668.5	3.6	0	10.15	0.169
5994.6	1668.2	6.2	0	10.38	0.187
5995.8	1667.8	8.4	0	10.6	0.204
5996.9	1667.5	10.3	0	10.82	0.221
5998.2	1667.2	11.8	0	11.03	0.238
5997.7	1667.3	0.2	10	9.97	0.163
5999.2	1666.9	3	10	10.28	0.187
6000.3	1666.6	4.9	10	10.51	0.204
6001.6	1666.2	6.6	10	10.73	0.221
6002.8	1665.9	7.9	10	10.94	0.238
6003.4	1665.7	0.1	20	10.12	0.181
6005	1665.3	2.1	20	10.41	0.204
6006.2	1664.9	3.6	20	10.63	0.221
6007.5	1664.6	4.8	20	10.85	0.238
6008.8	1664.2	5.6	20	11.07	0.256
6009.6	1664	0.1	30	10.3	0.202
6010.9	1663.6	1.3	30	10.54	0.221
6012.2	1663.3	2.4	30	10.75	0.238
6013.8	1662.8	2.9	30	10.97	0.256
6016.3	1662.2	0.1	40	10.53	0.229
6017	1662	0.5	40	10.65	0.238
6018.4	1661.6	1.3	40	10.87	0.256

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

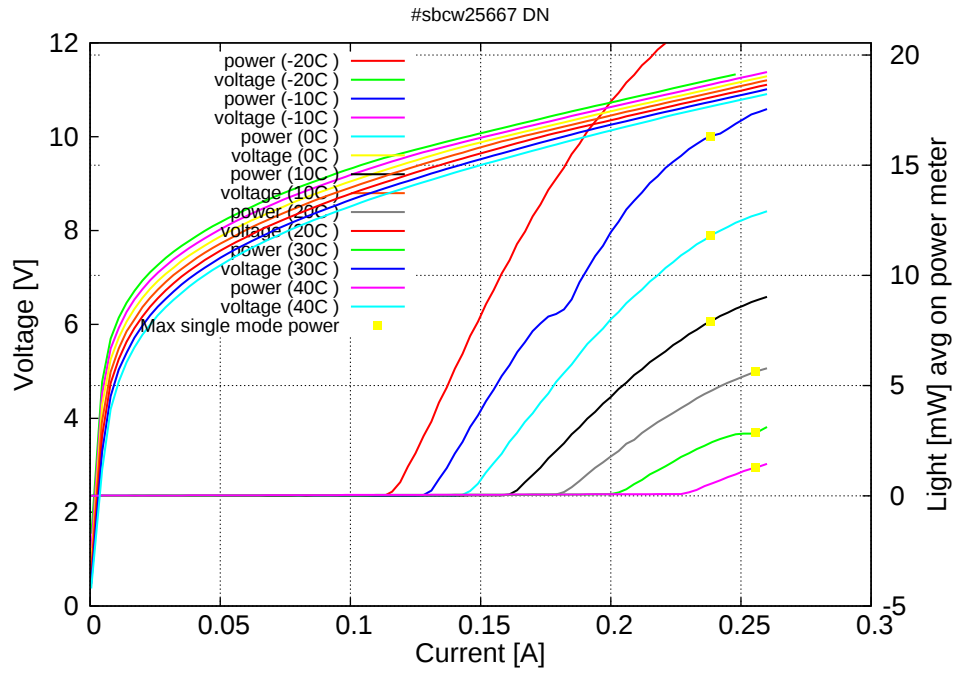


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.12A$ / $V_{th}=9.6V$ (2-wires measurements). Maximum operation current: 0.22A at -20C, 0.24A between -10C and 10C, 0.26A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

