

Datasheet for #sbcw26639 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.

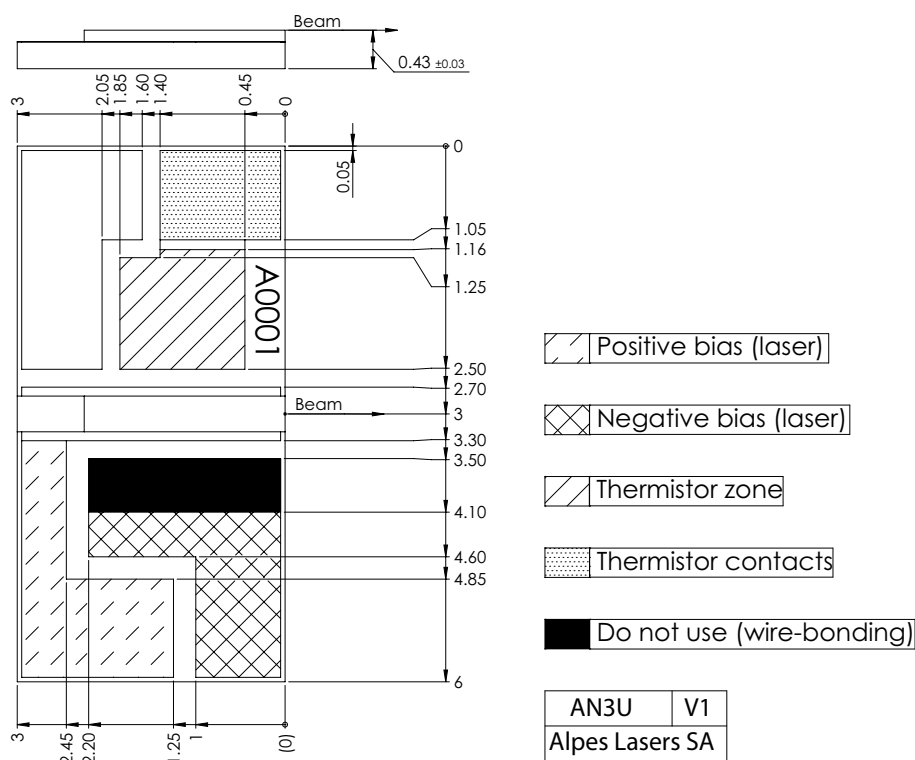


Figure 1: Mechanical and electrical interface for #sbcw26639 DN (please note that AlN submount numbering is A0U4D)

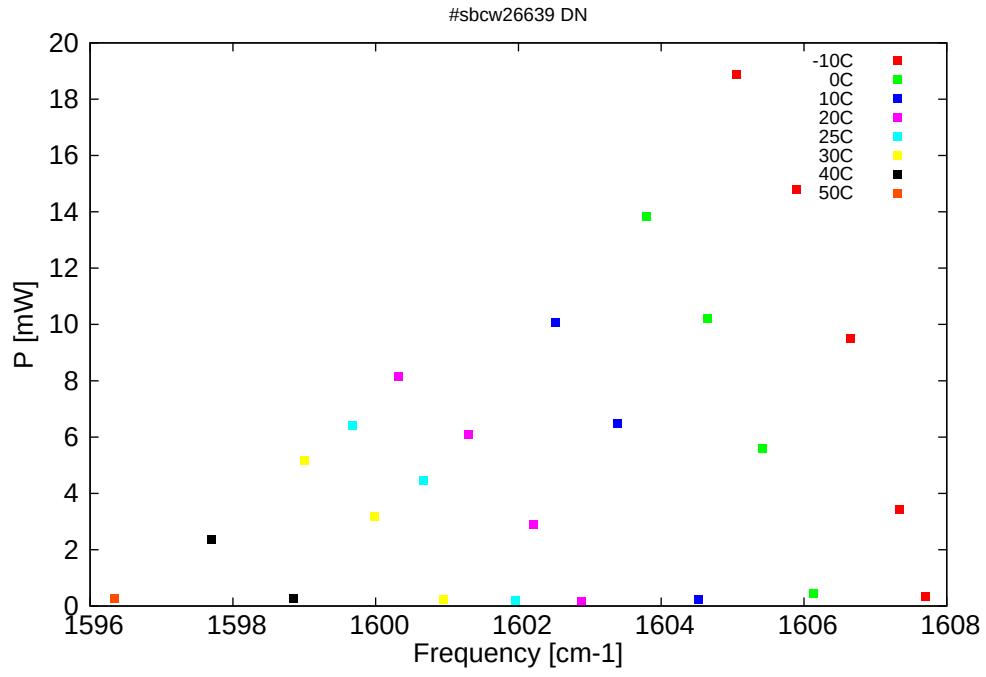


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

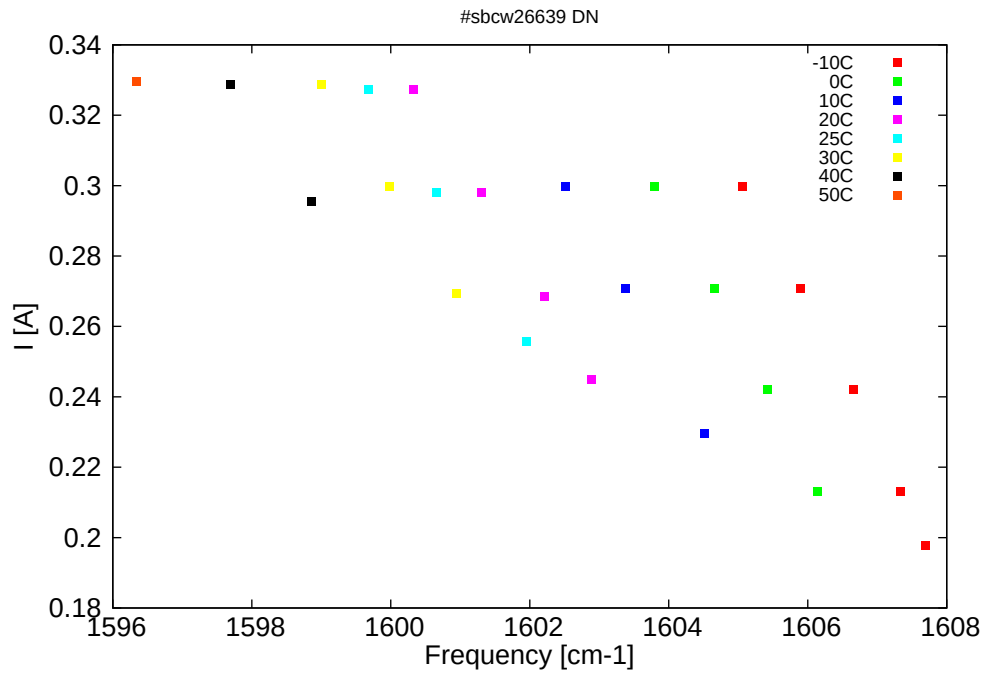


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6220.1	1607.7	0.3	-10	9.84	0.198
6221.5	1607.3	3.4	-10	10.01	0.213
6224.1	1606.7	9.5	-10	10.32	0.242
6227.1	1605.9	14.8	-10	10.65	0.271
6230.3	1605.1	18.9	-10	10.99	0.3
6226.1	1606.1	0.5	0	9.92	0.213
6228.9	1605.4	5.6	0	10.23	0.242
6231.9	1604.7	10.2	0	10.56	0.271
6235.2	1603.8	13.8	0	10.9	0.3
6232.4	1604.5	0.2	10	10.01	0.23
6236.8	1603.4	6.5	10	10.47	0.271
6240.2	1602.5	10.1	10	10.81	0.3
6238.7	1602.9	0.2	20	10.14	0.245
6241.3	1602.2	2.9	20	10.41	0.269
6244.9	1601.3	6.1	20	10.74	0.298
6248.7	1600.3	8.2	20	11.09	0.327
6242.4	1602	0.2	25	10.21	0.256
6247.4	1600.7	4.5	25	10.69	0.298
6251.3	1599.7	6.4	25	11.03	0.327
6246.3	1600.9	0.2	30	10.28	0.269
6250.1	1600	3.2	30	10.63	0.3
6253.9	1599	5.2	30	10.96	0.329
6254.5	1598.9	0.3	40	10.49	0.296
6259	1597.7	2.4	40	10.86	0.329
6264.3	1596.3	0.3	50	10.77	0.33

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

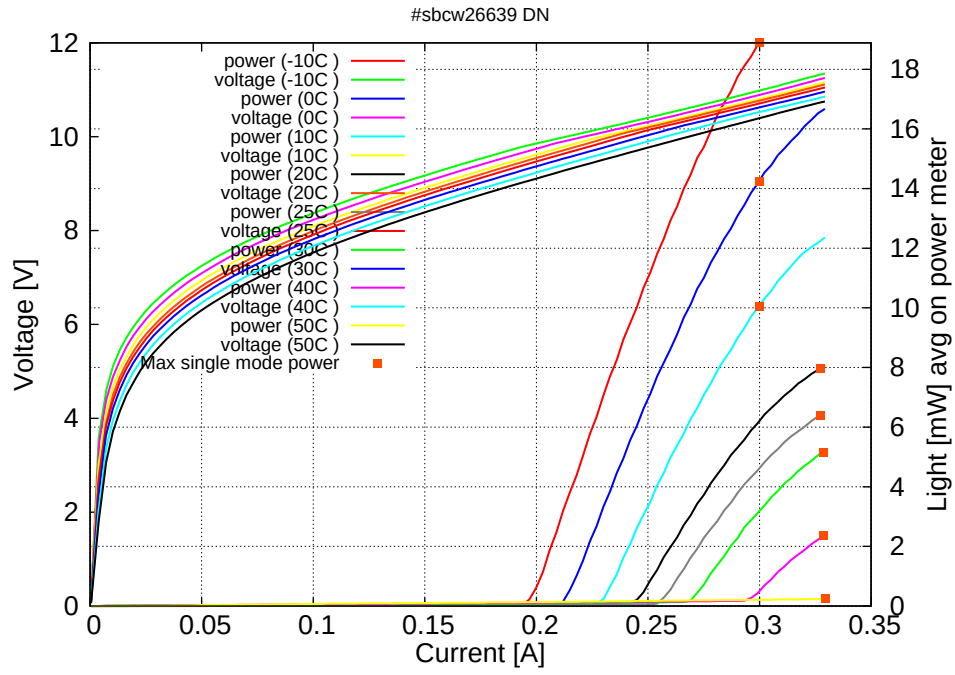


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.19A$ / $V_{th}=9.8V$ (2-wires measurements). Maximum operation current: 0.30A between -10C and 10C, 0.33A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

