

Datasheet for #sbcw25630 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 #sbcw25630 DN (please note that AlN submount numbering is A0WXU)

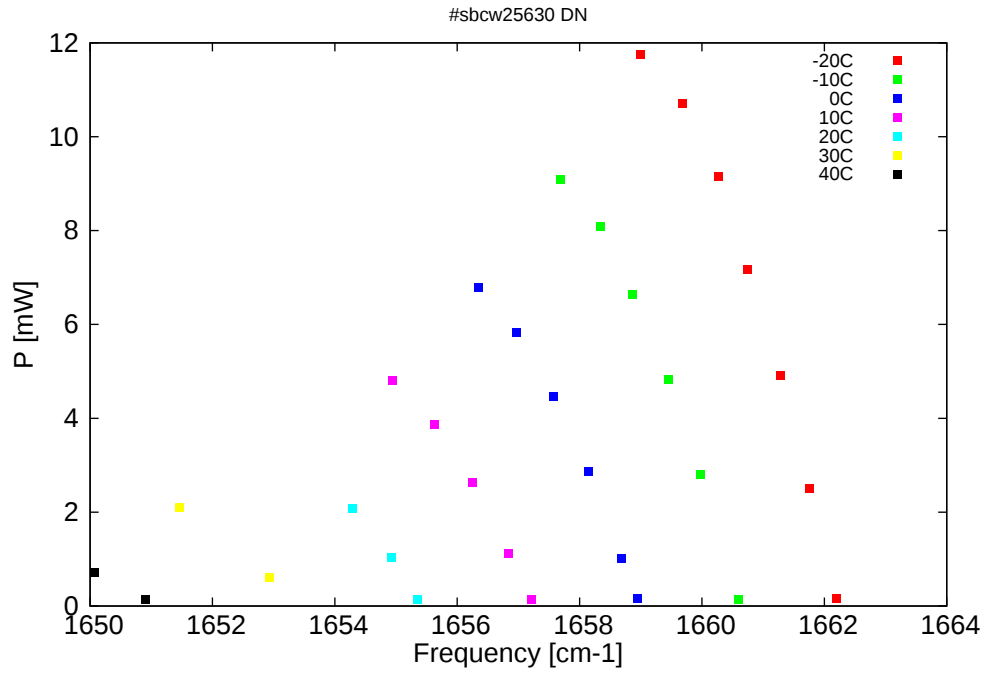


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

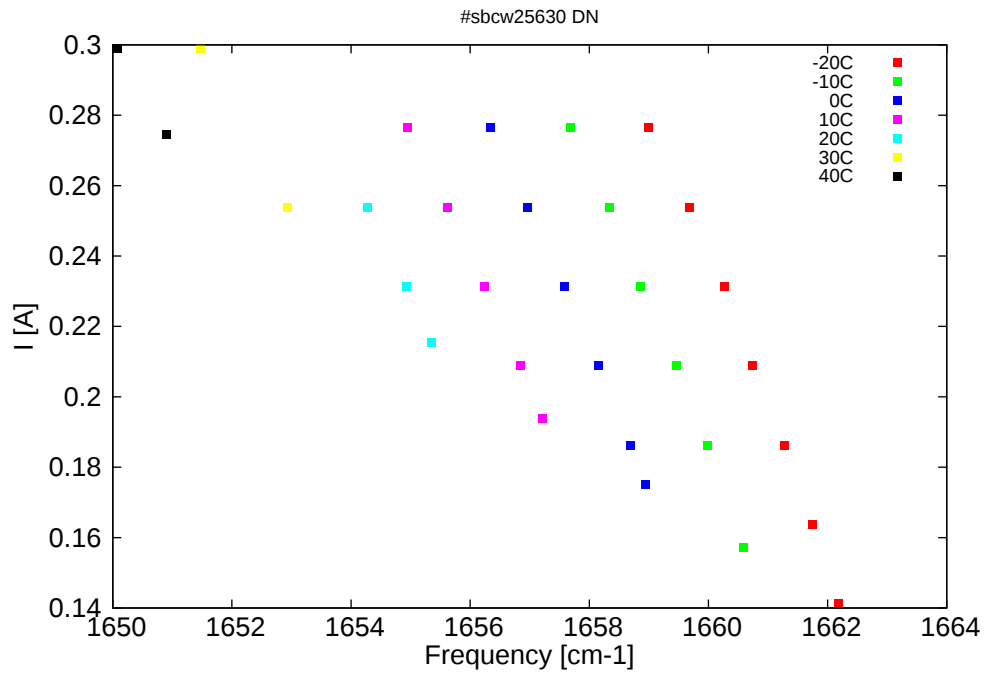


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
6016.2	1662.2	0.2	-20	9.48	0.141
6017.7	1661.8	2.5	-20	9.72	0.164
6019.5	1661.3	4.9	-20	9.97	0.186
6021.4	1660.7	7.2	-20	10.2	0.209
6023.1	1660.3	9.1	-20	10.45	0.231
6025.2	1659.7	10.7	-20	10.69	0.254
6027.8	1659	11.7	-20	10.94	0.276
6021.9	1660.6	0.1	-10	9.57	0.157
6024.2	1660	2.8	-10	9.88	0.186
6026.1	1659.5	4.8	-10	10.12	0.209
6028.2	1658.9	6.6	-10	10.36	0.231
6030.1	1658.3	8.1	-10	10.62	0.254
6032.5	1657.7	9.1	-10	10.87	0.276
6027.9	1658.9	0.2	0	9.69	0.175
6028.9	1658.7	1	0	9.81	0.186
6030.8	1658.2	2.9	0	10.06	0.209
6032.9	1657.6	4.5	0	10.3	0.231
6035.1	1657	5.8	0	10.56	0.254
6037.4	1656.3	6.8	0	10.81	0.276
6034.2	1657.2	0.1	10	9.83	0.194
6035.6	1656.8	1.1	10	9.99	0.209
6037.7	1656.2	2.6	10	10.24	0.231
6040	1655.6	3.9	10	10.5	0.254
6042.5	1654.9	4.8	10	10.76	0.276
6041	1655.4	0.2	20	10.01	0.215
6042.6	1654.9	1	20	10.19	0.231
6044.9	1654.3	2.1	20	10.44	0.254
6049.8	1652.9	0.6	30	10.35	0.254
6055.2	1651.5	2.1	30	10.86	0.299
6057.3	1650.9	0.1	40	10.52	0.275
6060.3	1650.1	0.7	40	10.79	0.299

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

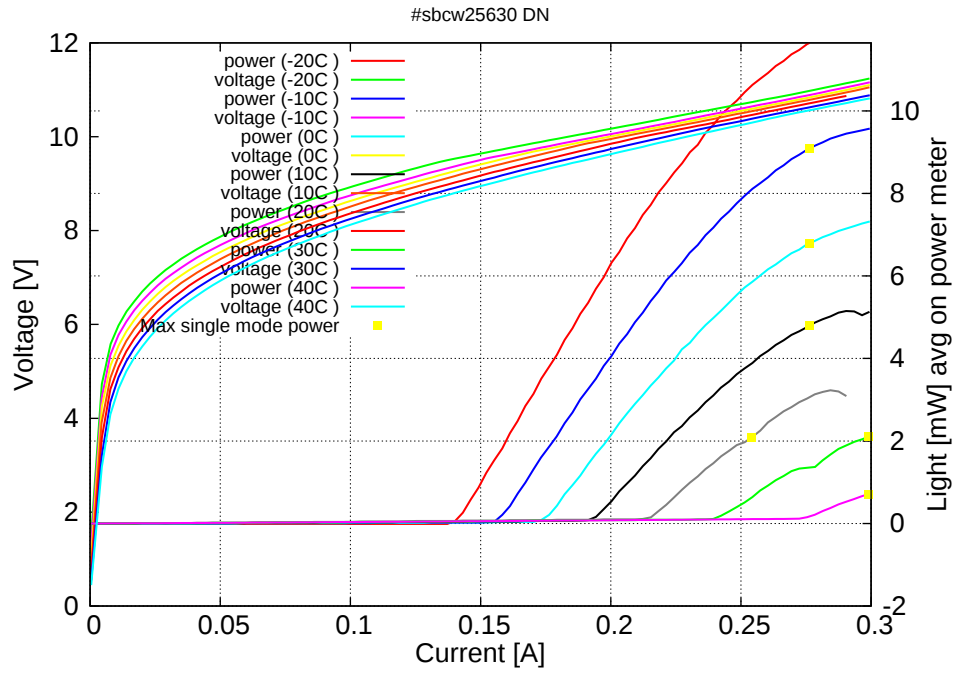


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.14A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.28A between -20C and 20C, 0.30A between 30C and 40C.

Figure 3: spectra at different temperatures for various DC currents

