

Datasheet for #sbcw25648 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 #sbcw25648 DN (please note that AlN submount numbering is A0UTD)

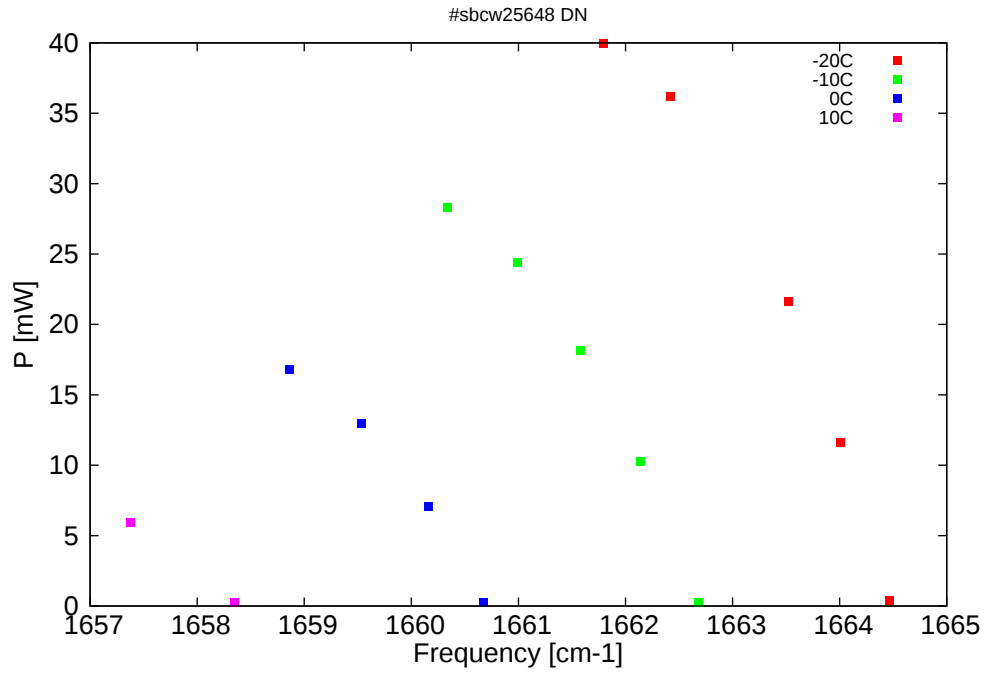


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

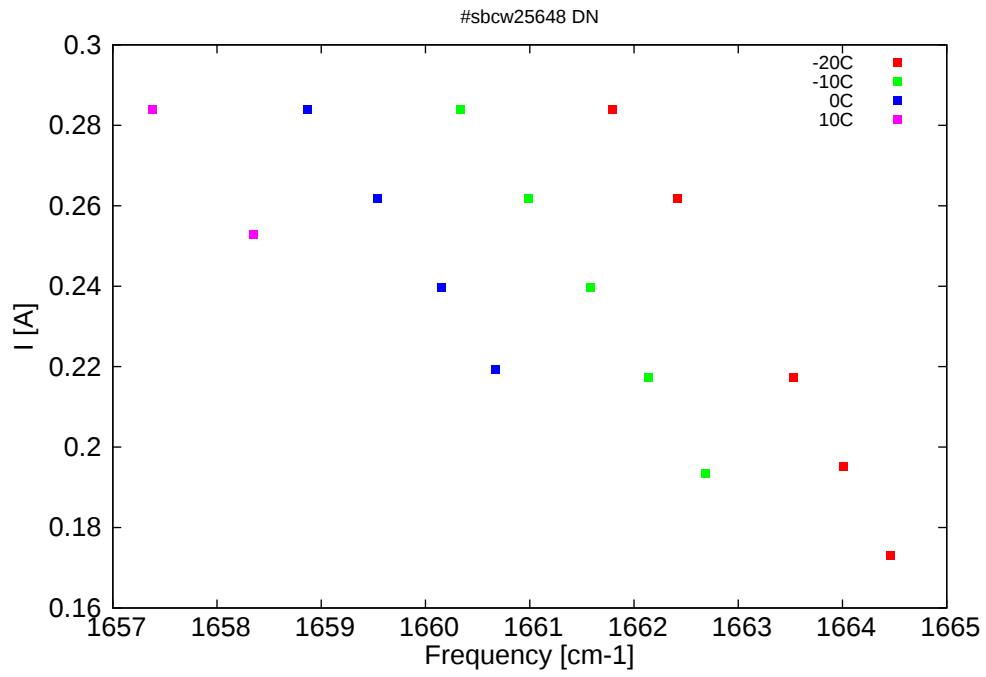


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6007.9	1664.5	0.4	-20	10	0.173
6009.6	1664	11.6	-20	10.23	0.195
6011.3	1663.5	21.6	-20	10.47	0.217
6015.3	1662.4	36.2	-20	10.96	0.262
6017.6	1661.8	40	-20	11.22	0.284
6014.4	1662.7	0.2	-10	10.14	0.194
6016.3	1662.1	10.3	-10	10.4	0.217
6018.4	1661.6	18.2	-10	10.65	0.24
6020.5	1661	24.4	-10	10.9	0.262
6022.9	1660.3	28.3	-10	11.16	0.284
6021.6	1660.7	0.2	0	10.36	0.219
6023.5	1660.2	7.1	0	10.59	0.24
6025.8	1659.5	12.9	0	10.84	0.262
6028.2	1658.9	16.8	0	11.1	0.284
6030.1	1658.3	0.2	10	10.68	0.253
6033.6	1657.4	5.9	10	11.05	0.284

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

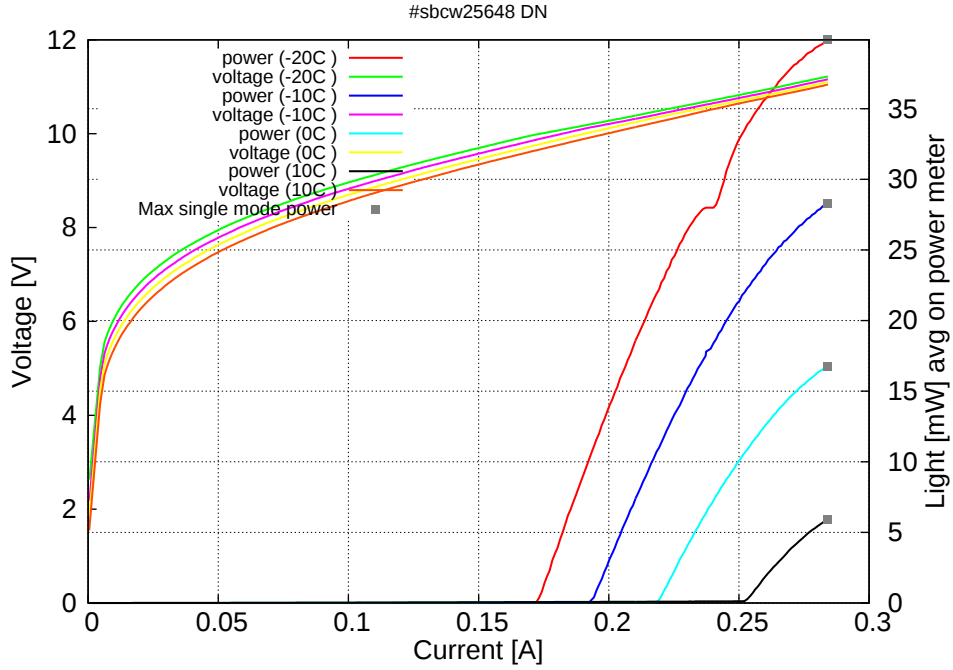


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.17A$ / $V_{th}=10.0V$ (2-wires measurements). Maximum operation current: 0.285A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

