

Datasheet for #sbcw23716 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

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 #sbcw23716 DN (please note that AlN submount numbering is A0YXF)

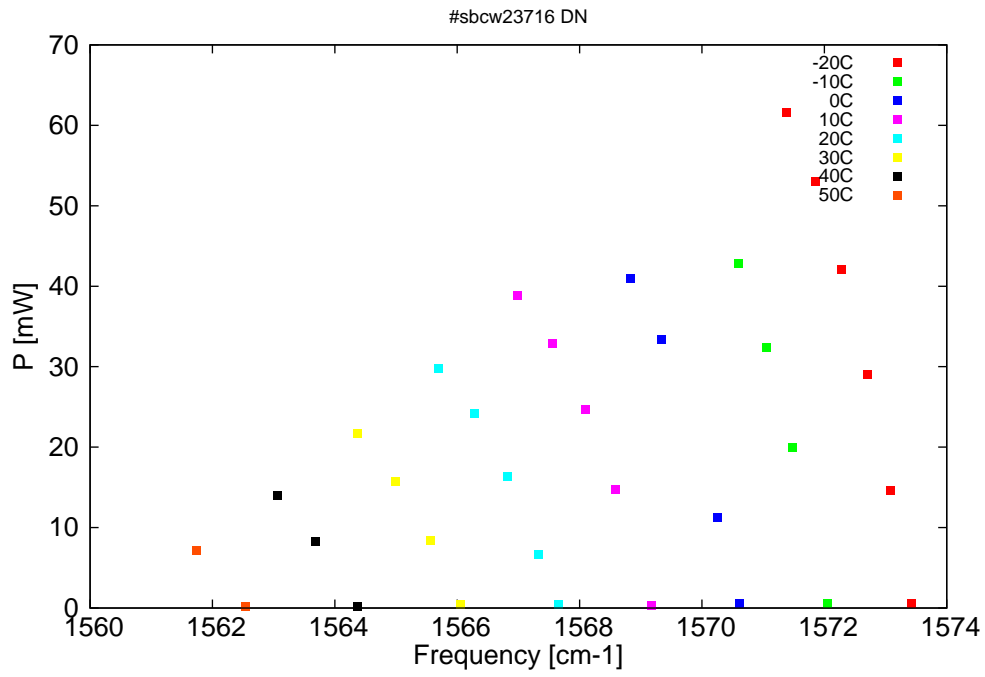


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

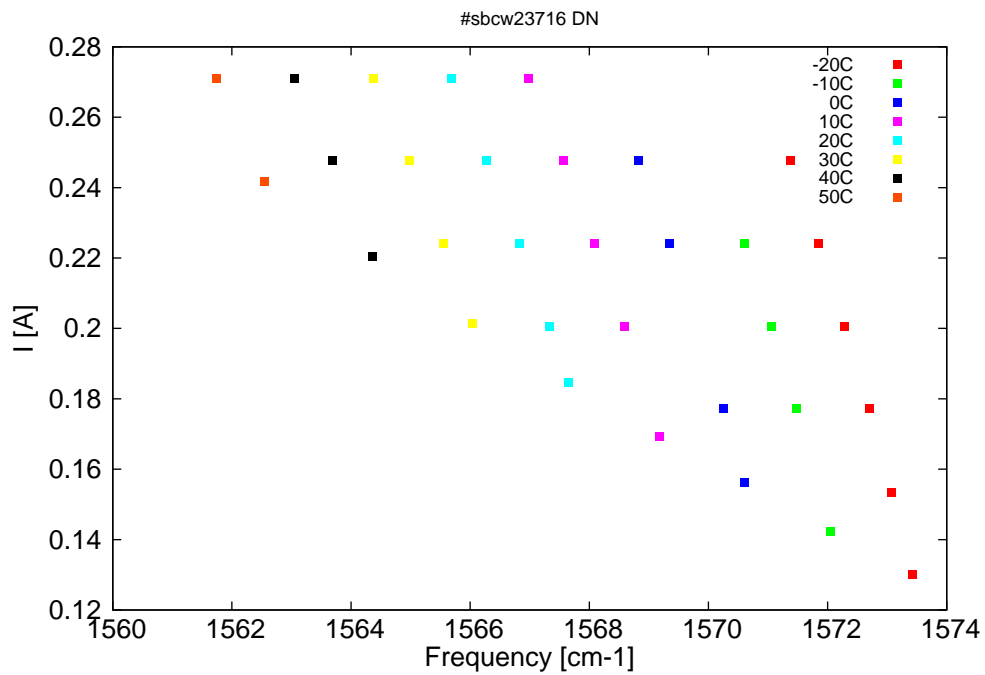


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6355.5	1573.4	0.6	-20	8.81	0.13
6357	1573.1	14.6	-20	9.05	0.154
6358.5	1572.7	29	-20	9.28	0.177
6360.2	1572.3	42.1	-20	9.5	0.201
6361.9	1571.8	53	-20	9.72	0.224
6363.8	1571.4	61.5	-20	9.95	0.248
6361.1	1572	0.5	-10	8.87	0.142
6363.4	1571.5	20	-10	9.22	0.177
6365.1	1571.1	32.4	-10	9.44	0.201
6367	1570.6	42.8	-10	9.66	0.224
6366.9	1570.6	0.6	0	8.95	0.156
6368.4	1570.3	11.3	0	9.16	0.177
6372.1	1569.3	33.4	0	9.61	0.224
6374.2	1568.8	41	0	9.84	0.248
6372.8	1569.2	0.4	10	9.02	0.169
6375.2	1568.6	14.7	10	9.34	0.201
6377.2	1568.1	24.7	10	9.56	0.224
6379.3	1567.6	32.8	10	9.8	0.248
6381.7	1567	38.8	10	10.03	0.271
6379	1567.7	0.4	20	9.12	0.185
6380.3	1567.3	6.7	20	9.28	0.201
6382.3	1566.8	16.3	20	9.52	0.224
6384.6	1566.3	24.1	20	9.75	0.248
6387	1565.7	29.8	20	9.99	0.271
6385.5	1566	0.5	30	9.25	0.202
6387.5	1565.6	8.4	30	9.47	0.224
6389.8	1565	15.7	30	9.71	0.248
6392.3	1564.4	21.8	30	9.95	0.271
6392.4	1564.4	0.3	40	9.39	0.22
6395.1	1563.7	8.2	40	9.66	0.248
6397.7	1563.1	14.1	40	9.9	0.271
6399.8	1562.5	0.2	50	9.55	0.242
6403.1	1561.7	7.1	50	9.85	0.271

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

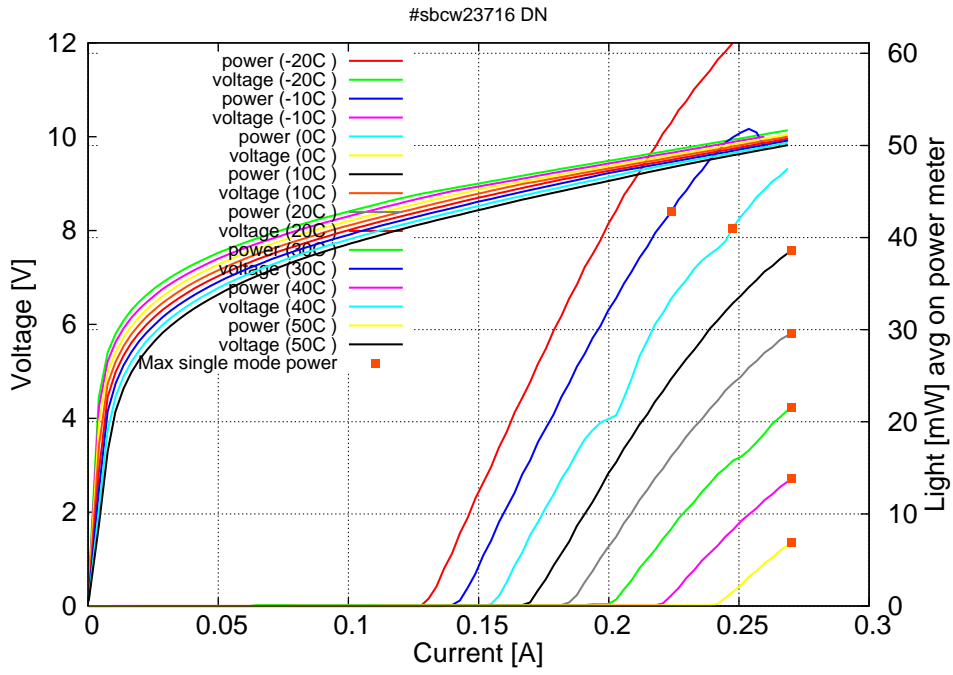


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.13A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.25A between -20C and 0C, 0.27A between 10C and 50C.

