

Datasheet for #sbcw26056 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 #sbcw26056 DN (please note that AlN submount numbering is A0WJN)

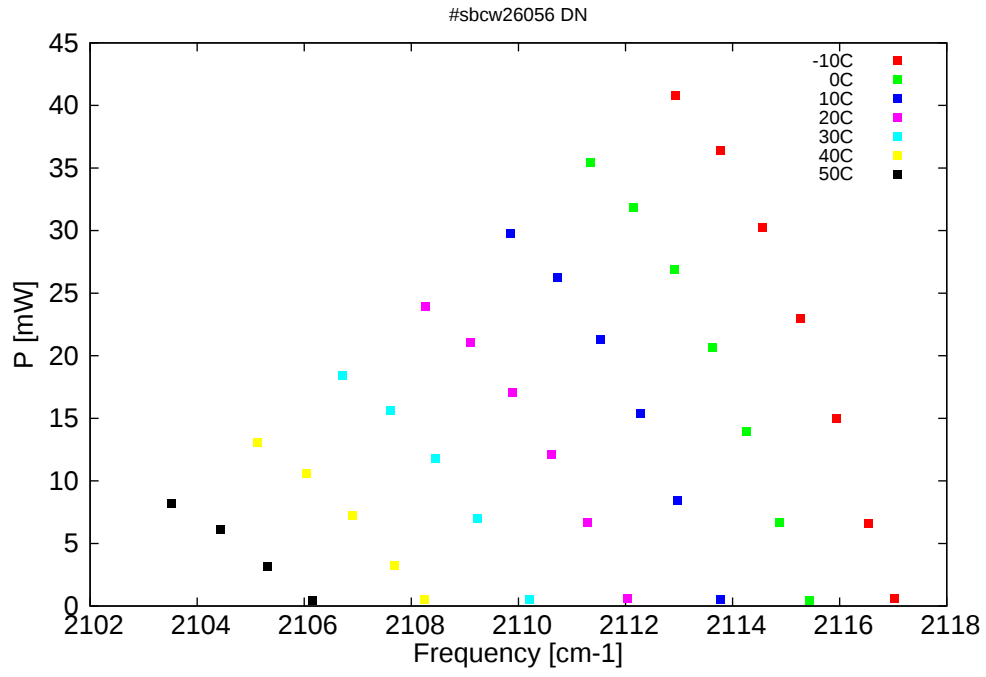


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

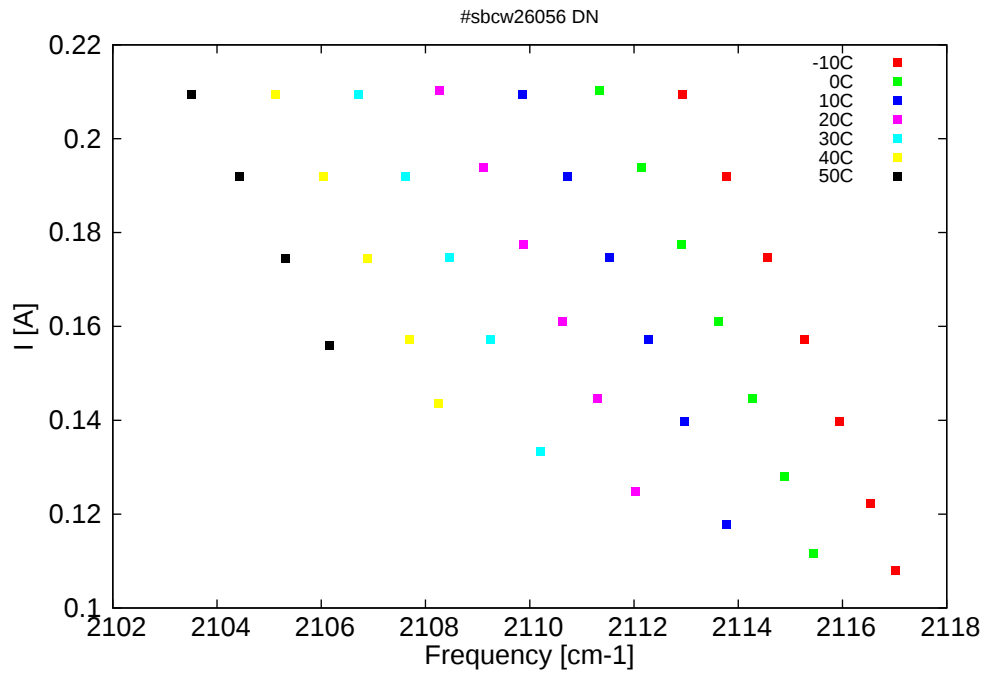


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4723.6	2117	0.6	-10	12.42	0.108
4724.7	2116.5	6.6	-10	12.59	0.122
4726	2115.9	15	-10	12.83	0.14
4727.5	2115.3	23	-10	13.1	0.157
4729.1	2114.6	30.3	-10	13.4	0.175
4730.9	2113.8	36.4	-10	13.74	0.192
4732.8	2112.9	40.8	-10	14.11	0.209
4727.1	2115.4	0.5	0	12.42	0.112
4728.4	2114.9	6.7	0	12.61	0.128
4729.8	2114.3	14	0	12.83	0.145
4731.2	2113.6	20.7	0	13.09	0.161
4732.8	2112.9	26.9	0	13.38	0.177
4734.5	2112.1	31.9	0	13.69	0.194
4736.3	2111.3	35.4	0	14.03	0.21
4730.9	2113.8	0.5	10	12.41	0.118
4732.7	2113	8.5	10	12.67	0.14
4734.2	2112.3	15.4	10	12.92	0.157
4735.9	2111.5	21.3	10	13.21	0.175
4737.7	2110.7	26.2	10	13.52	0.192
4739.7	2109.9	29.8	10	13.85	0.209
4734.8	2112	0.6	20	12.45	0.125
4736.4	2111.3	6.7	20	12.68	0.145
4737.9	2110.6	12.1	20	12.92	0.161
4739.6	2109.9	17.1	20	13.18	0.177
4741.3	2109.1	21.1	20	13.46	0.194
4743.2	2108.3	24	20	13.76	0.21
4738.9	2110.2	0.5	30	12.49	0.133
4741	2109.2	7	30	12.78	0.157
4742.8	2108.5	11.8	30	13.04	0.175
4744.7	2107.6	15.6	30	13.32	0.192
4746.7	2106.7	18.4	30	13.62	0.209
4743.3	2108.2	0.5	40	12.57	0.144
4744.5	2107.7	3.2	40	12.72	0.157
4746.3	2106.9	7.3	40	12.96	0.175
4748.3	2106	10.6	40	13.22	0.192
4750.3	2105.1	13.1	40	13.5	0.209
4748	2106.2	0.4	50	12.68	0.156
4749.9	2105.3	3.2	50	12.9	0.175
4751.9	2104.4	6.1	50	13.14	0.192
4754	2103.5	8.2	50	13.4	0.209

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

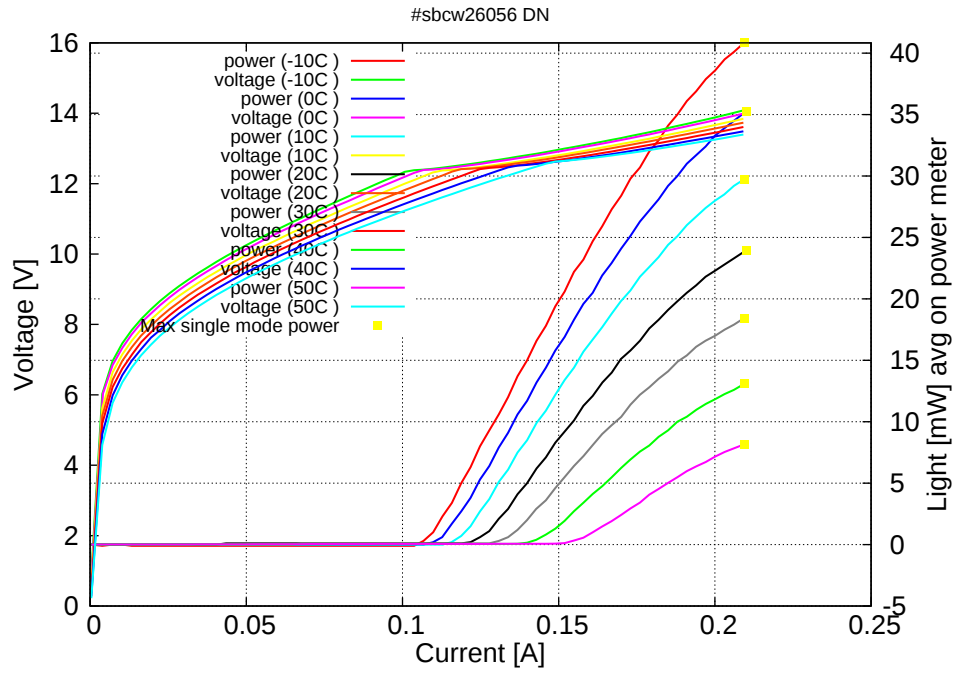


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.11A$ / $V_{th}=12.4V$ (2-wires measurements). Maximum operation current: 0.21A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

