

Datasheet for #sbcw24067 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 #sbcw24067 DN (please note that AlN submount numbering is A0ZR8)

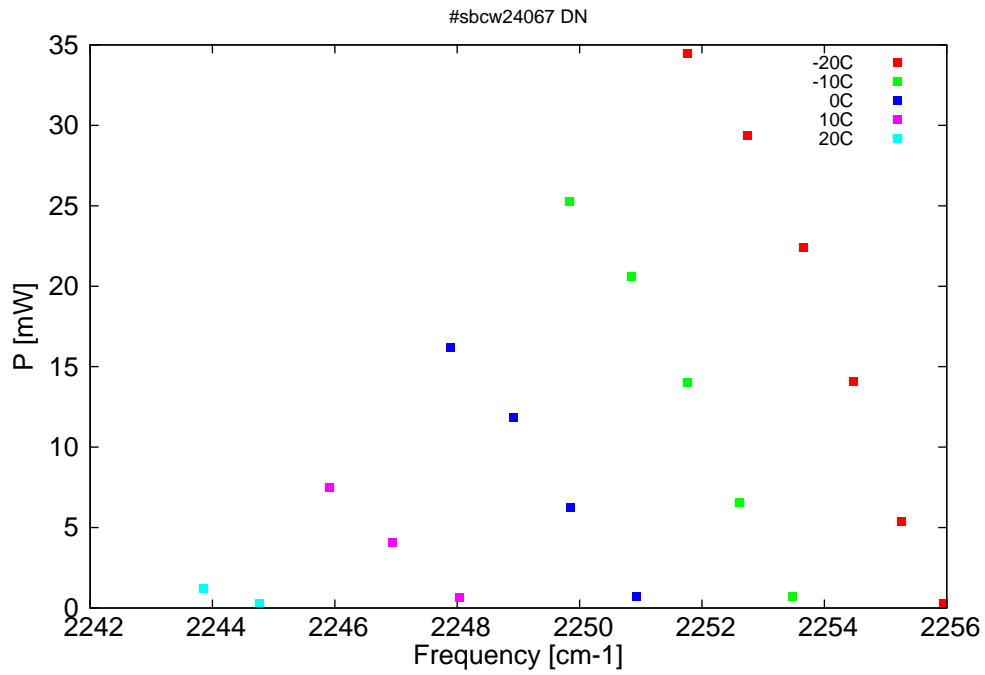


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

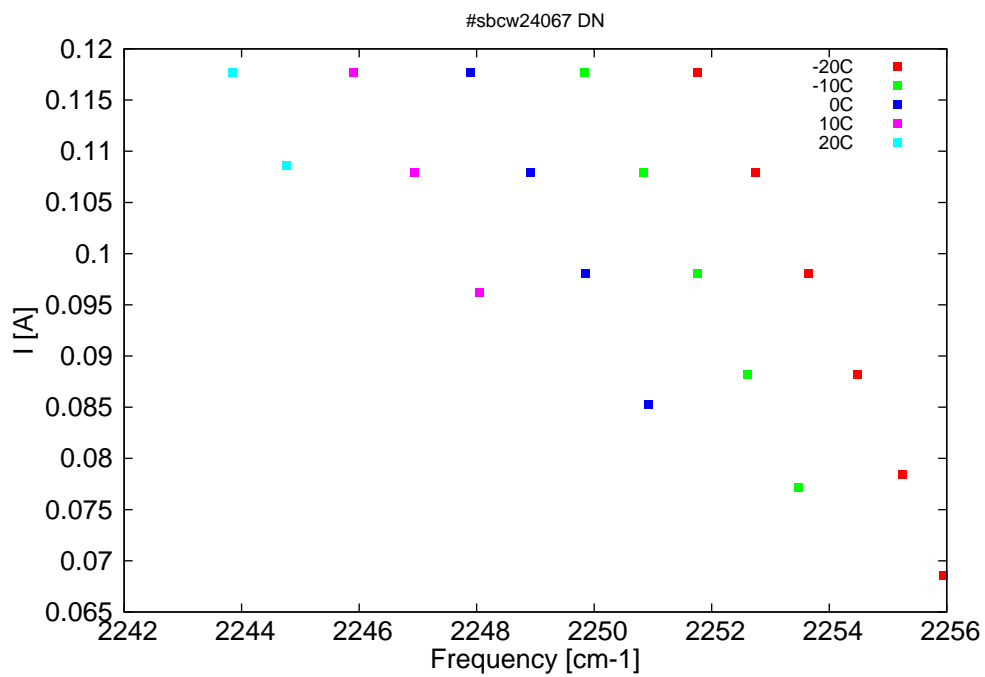


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
4432.7	2256	0.3	-20	13.66	0.069
4434.1	2255.3	5.4	-20	13.92	0.078
4435.6	2254.5	14.1	-20	14.2	0.088
4437.2	2253.7	22.4	-20	14.48	0.098
4439	2252.7	29.4	-20	14.77	0.108
4441	2251.8	34.5	-20	15.06	0.118
4437.6	2253.5	0.7	-10	13.72	0.077
4439.3	2252.6	6.6	-10	14.02	0.088
4441	2251.8	14	-10	14.3	0.098
4442.8	2250.8	20.6	-10	14.58	0.108
4444.8	2249.8	25.3	-10	14.87	0.118
4442.6	2250.9	0.7	0	13.8	0.085
4444.7	2249.9	6.3	0	14.13	0.098
4446.6	2248.9	11.8	0	14.41	0.108
4448.6	2247.9	16.2	0	14.68	0.118
4448.3	2248	0.6	10	13.96	0.096
4450.5	2246.9	4.1	10	14.26	0.108
4452.5	2245.9	7.5	10	14.52	0.118
4454.8	2244.8	0.3	20	14.19	0.109
4456.6	2243.9	1.2	20	14.42	0.118

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

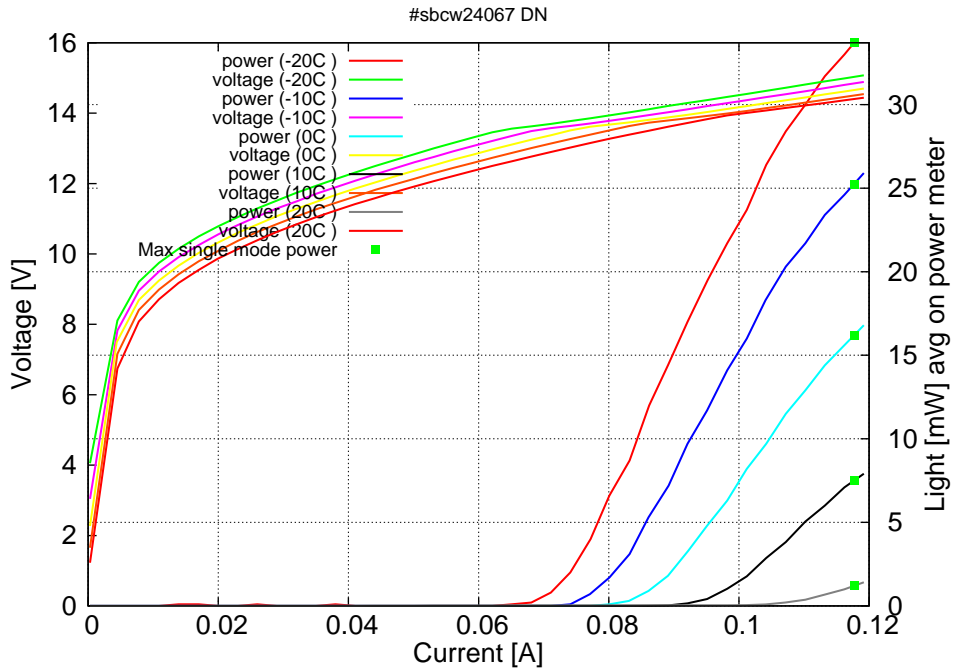


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.07A$ / $V_{th}=13.7V$ (2-wires measurements). Maximum operation current: 0.12A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

