

Datasheet for #sbcw24960 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.

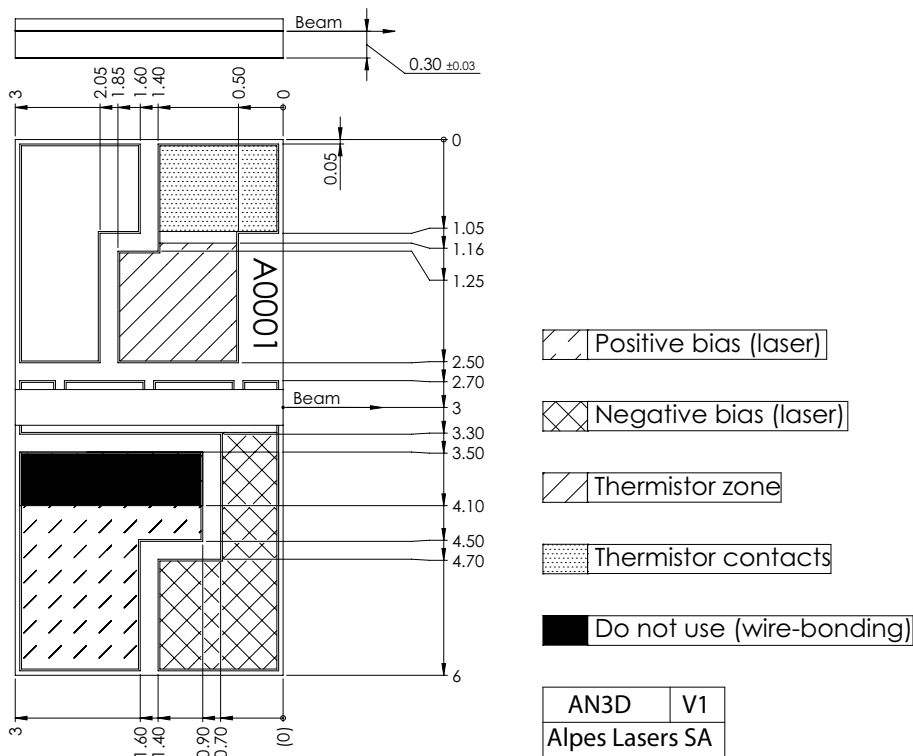


Figure 1: Mechanical and electrical interface for #sbcw24960 DN (please note that AlN submount numbering is P3742)

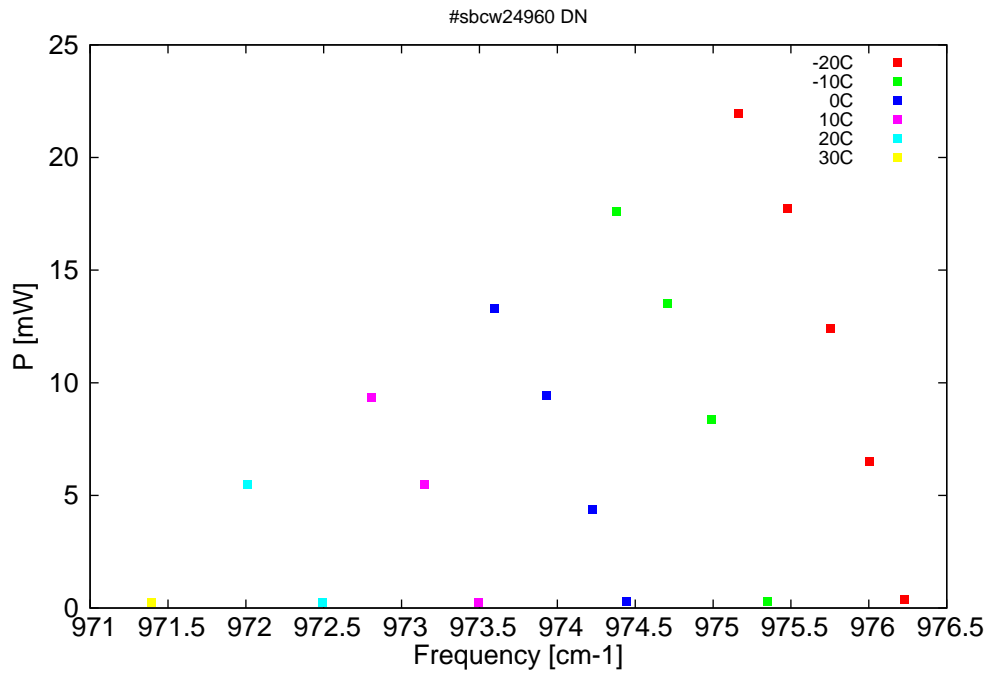


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

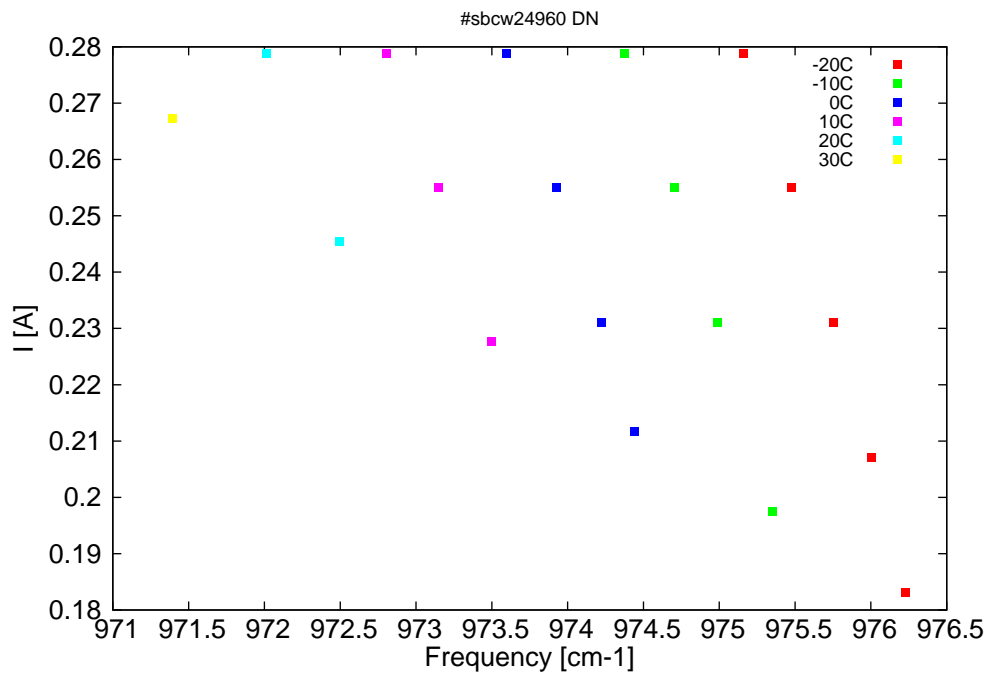


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10243.5	976.2	0.4	-20	8.83	0.183
10245.9	976	6.5	-20	9.13	0.207
10248.5	975.8	12.4	-20	9.46	0.231
10251.4	975.5	17.7	-20	9.81	0.255
10254.7	975.2	22	-20	10.21	0.279
10252.7	975.4	0.3	-10	8.98	0.197
10256.5	975	8.4	-10	9.44	0.231
10259.5	974.7	13.5	-10	9.79	0.255
10263	974.4	17.6	-10	10.19	0.279
10262.3	974.4	0.3	0	9.16	0.212
10264.6	974.2	4.4	0	9.44	0.231
10267.7	973.9	9.4	0	9.8	0.255
10271.2	973.6	13.3	0	10.2	0.279
10272.3	973.5	0.3	10	9.39	0.228
10275.9	973.2	5.5	10	9.8	0.255
10279.5	972.8	9.3	10	10.21	0.279
10282.9	972.5	0.2	20	9.68	0.246
10287.9	972	5.5	20	10.23	0.279
10294.5	971.4	0.2	30	10.1	0.267

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

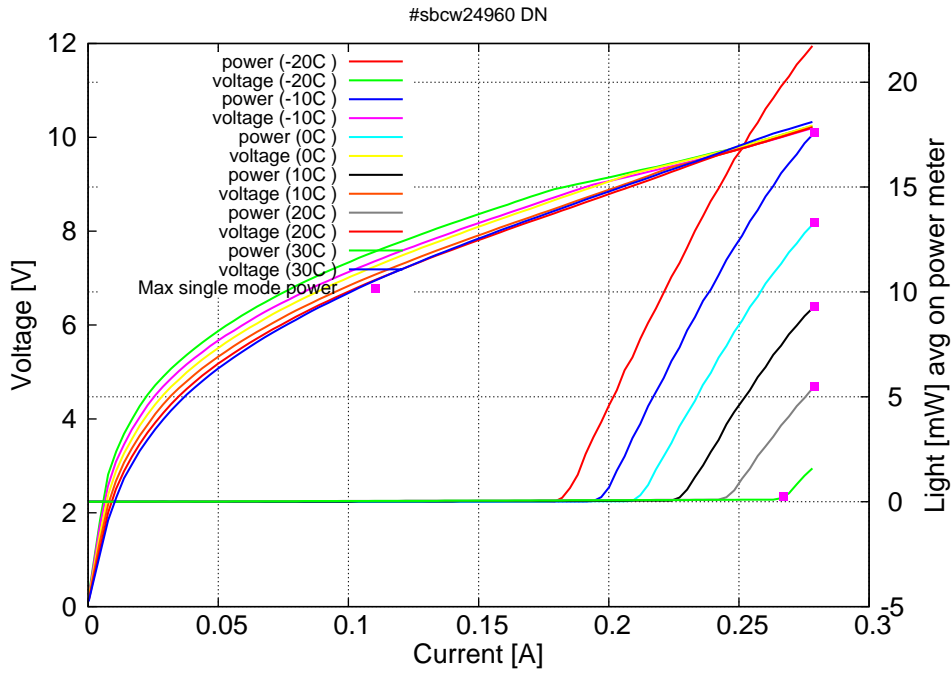


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.18A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.28A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

