

Datasheet for #sbcw24932 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.

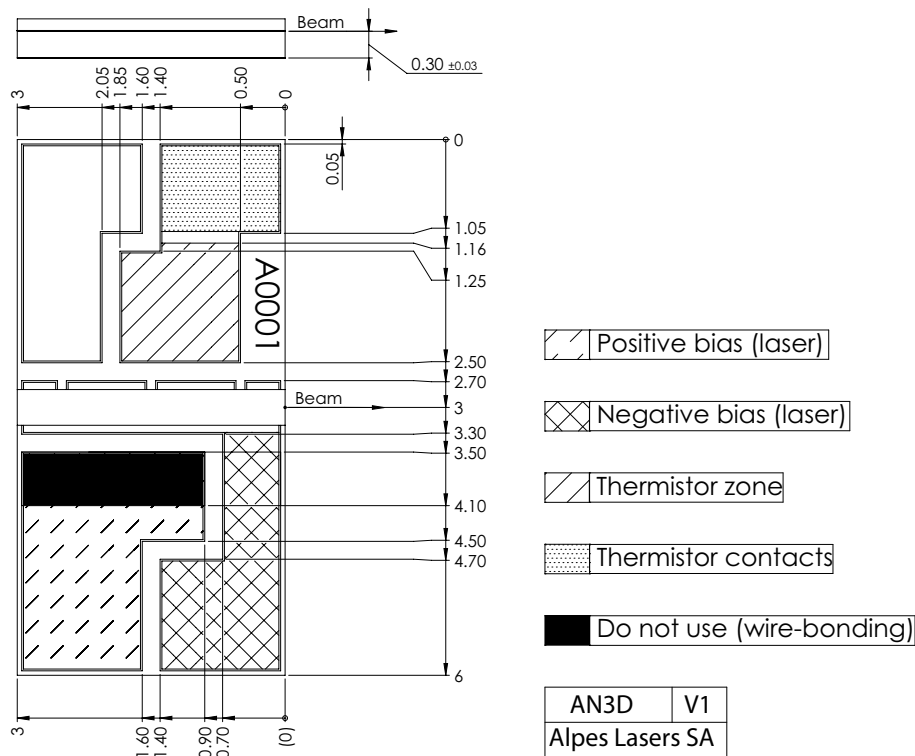


Figure 1: Mechanical and electrical interface for #sbcw24932 DN (please note that AlN submount numbering is P2781)

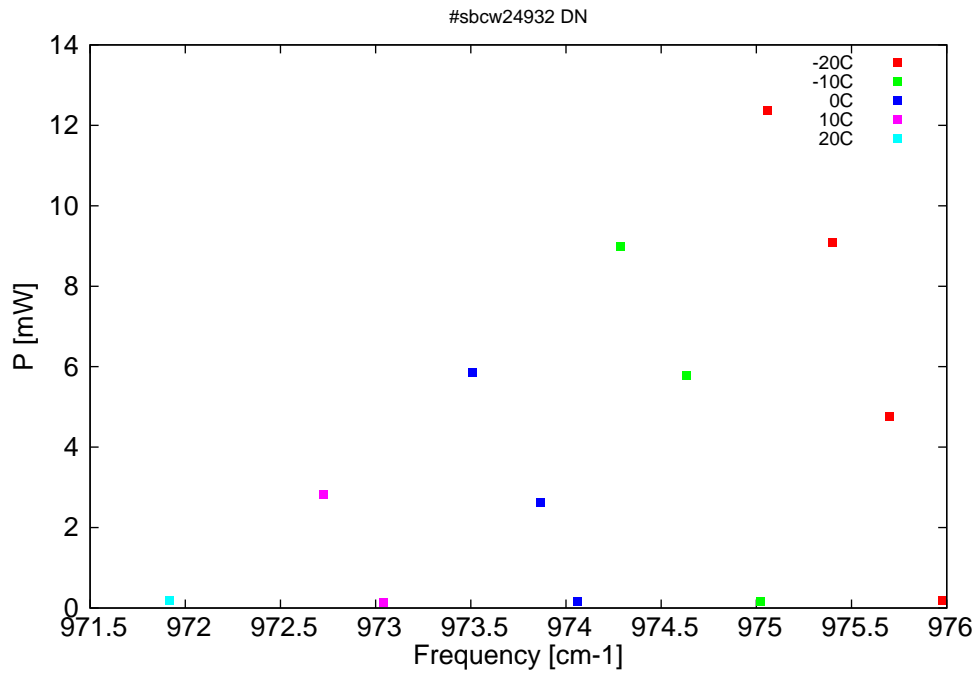


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

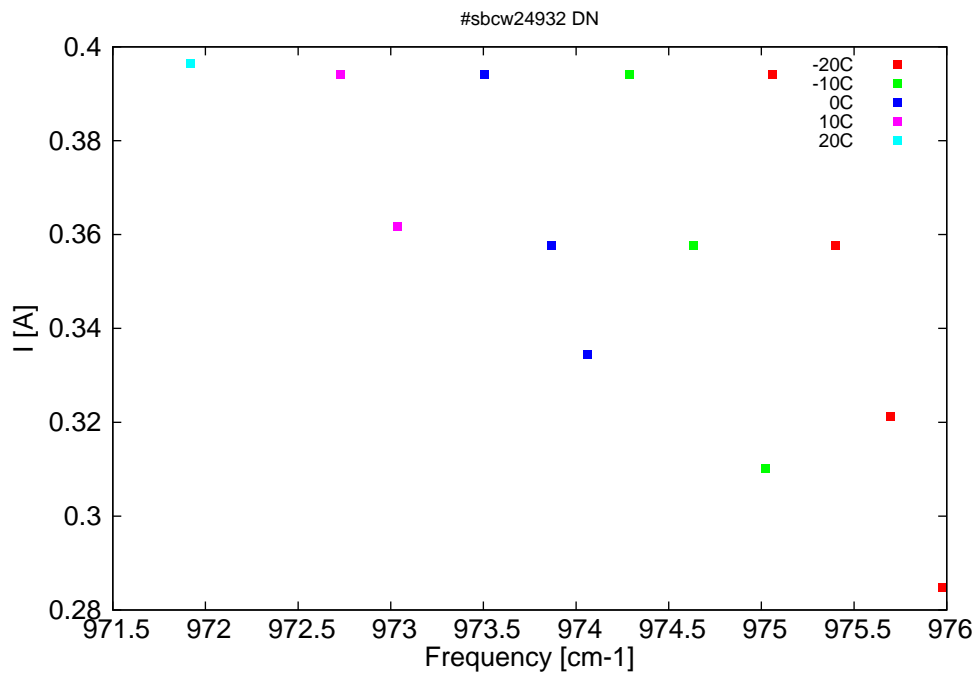


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10246.1	976	0.2	-20	8.99	0.285
10249.1	975.7	4.8	-20	9.32	0.321
10252.2	975.4	9.1	-20	9.67	0.358
10255.8	975.1	12.4	-20	10.08	0.394
10256.2	975	0.2	-10	9.19	0.31
10260.3	974.6	5.8	-10	9.65	0.358
10263.9	974.3	9	-10	10.05	0.394
10266.3	974.1	0.2	0	9.39	0.334
10268.4	973.9	2.6	0	9.63	0.358
10272.1	973.5	5.9	0	10.03	0.394
10277.1	973	0.1	10	9.65	0.362
10280.4	972.7	2.8	10	10.01	0.394
10288.9	971.9	0.2	20	10.01	0.397

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

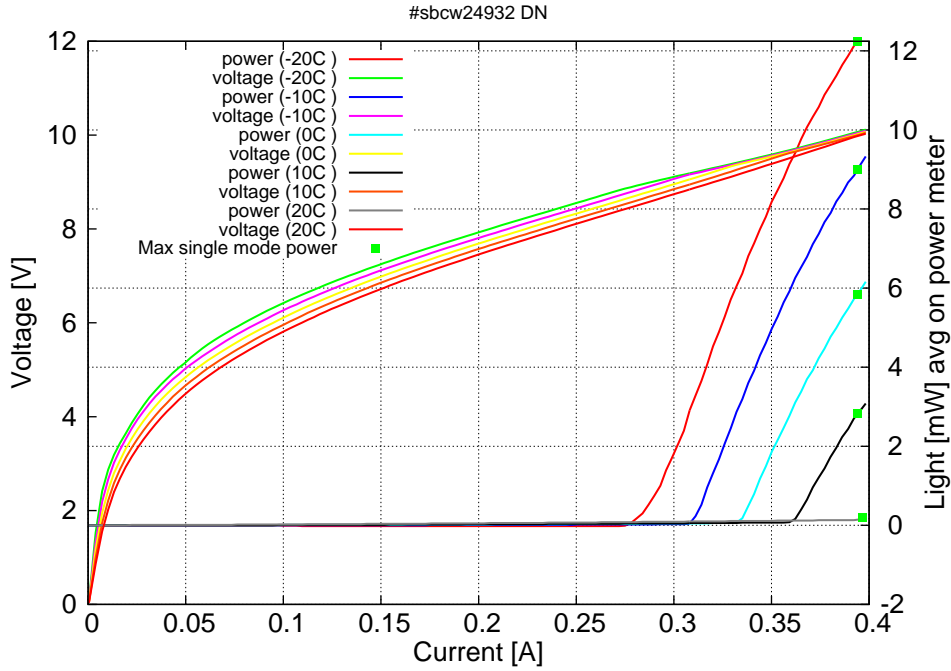


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.28A$ / $V_{th}=8.95V$ (2-wires measurements). Maximum operation current: 0.400A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

