

Datasheet for #sbcw24929 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.

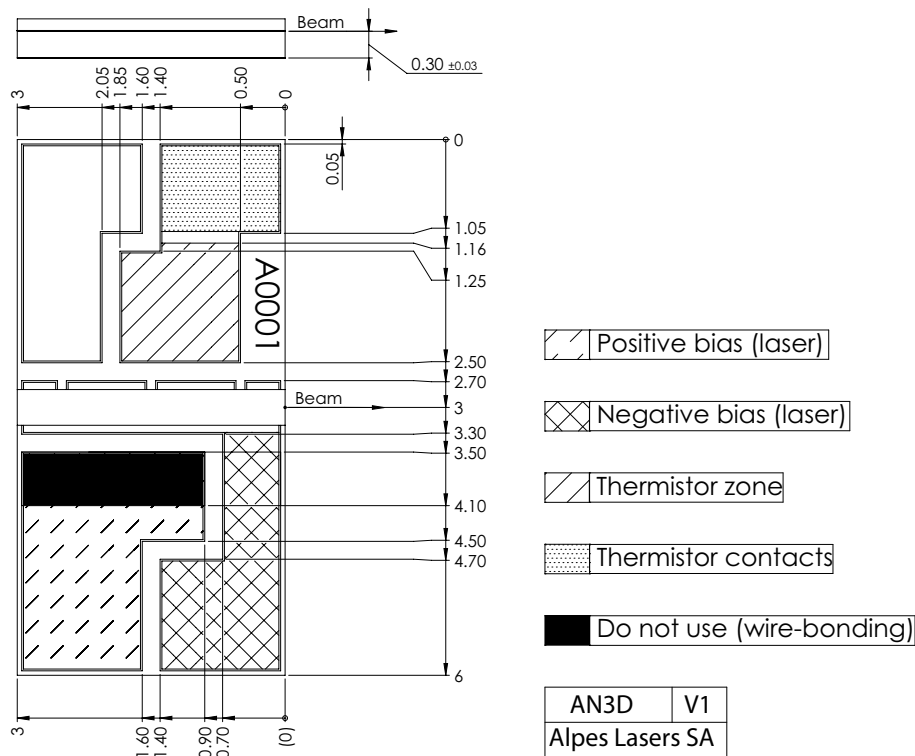


Figure 1: Mechanical and electrical interface for #sbcw24929 DN (please note that AlN submount numbering is P3752)

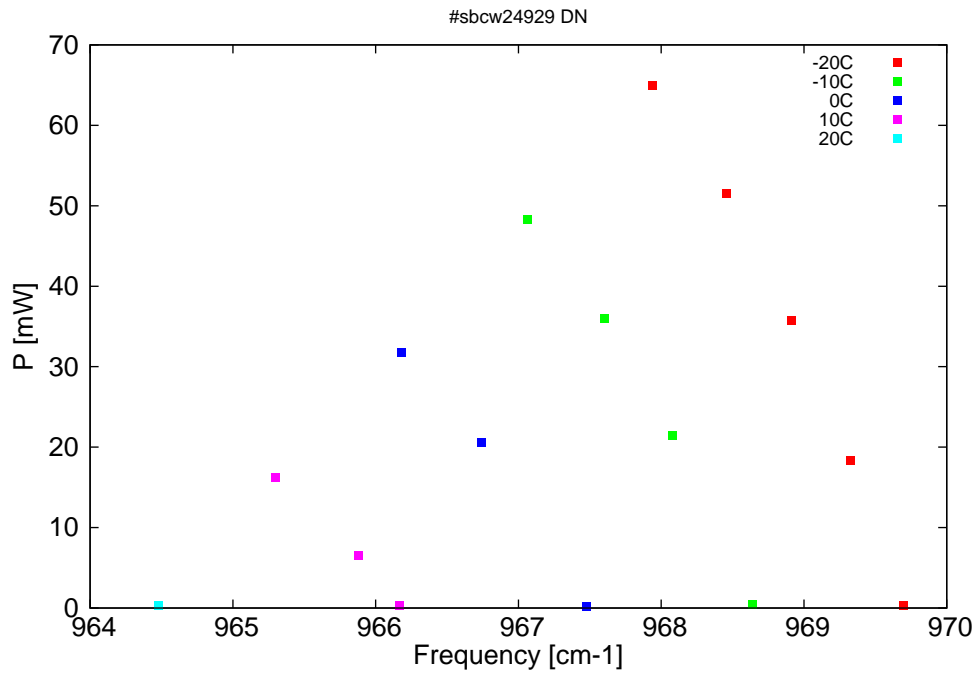


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

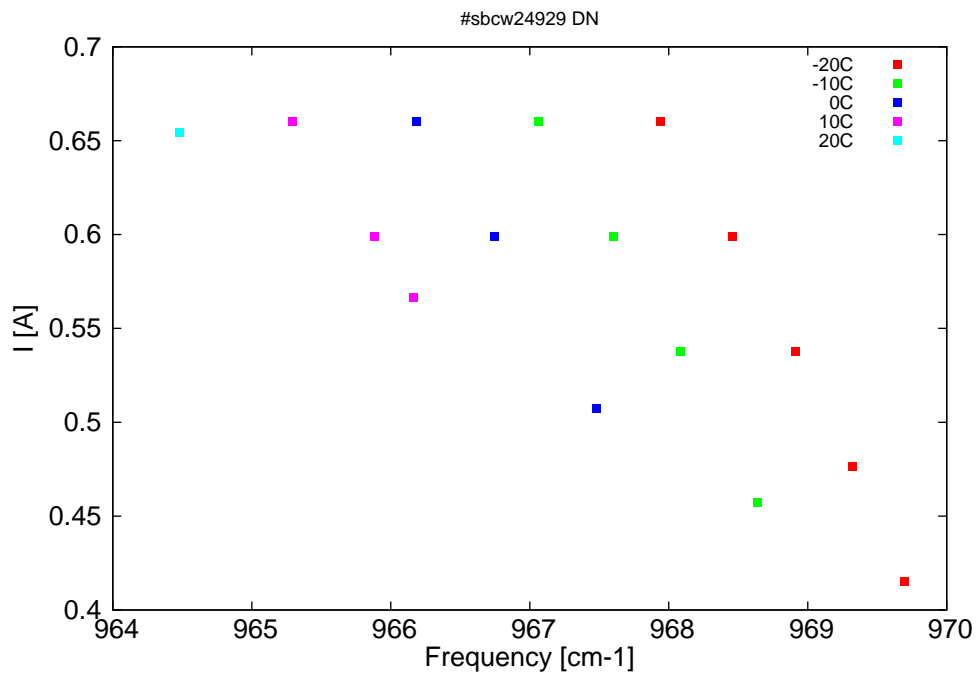


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10312.5	969.7	0.3	-20	8.73	0.415
10316.5	969.3	18.3	-20	9.04	0.476
10320.8	968.9	35.7	-20	9.38	0.538
10325.7	968.5	51.5	-20	9.74	0.599
10331.2	967.9	65	-20	10.15	0.66
10323.8	968.6	0.4	-10	8.89	0.457
10329.7	968.1	21.5	-10	9.36	0.538
10334.8	967.6	36	-10	9.74	0.599
10340.6	967.1	48.3	-10	10.16	0.66
10336.2	967.5	0.2	0	9.14	0.507
10344	966.7	20.6	0	9.72	0.599
10350	966.2	31.8	0	10.15	0.66
10350.2	966.2	0.3	10	9.5	0.567
10353.2	965.9	6.5	10	9.71	0.599
10359.5	965.3	16.3	10	10.15	0.66
10368.3	964.5	0.3	20	10.12	0.654

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

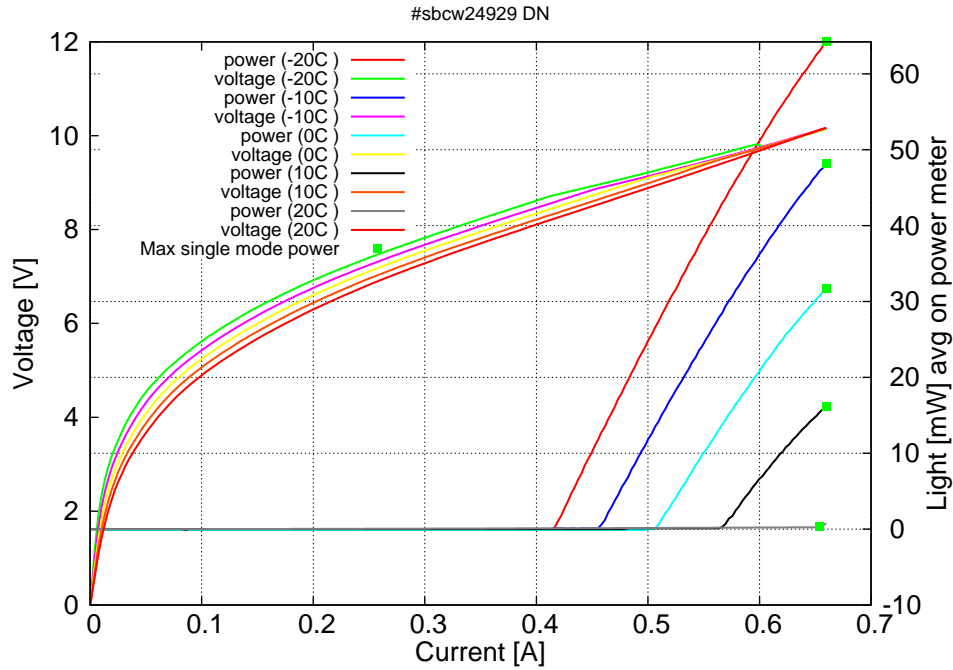


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.41A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.66A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

