

Datasheet for #sbcw24919 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.

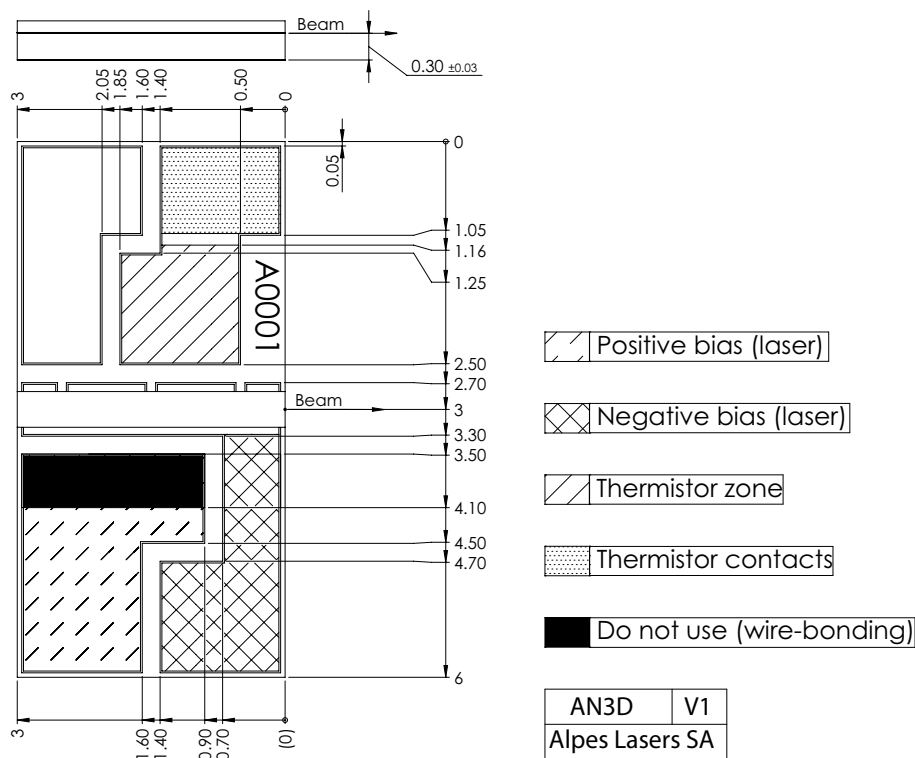


Figure 1: Mechanical and electrical interface for #sbcw24919 DN (please note that AlN submount numbering is P3750)

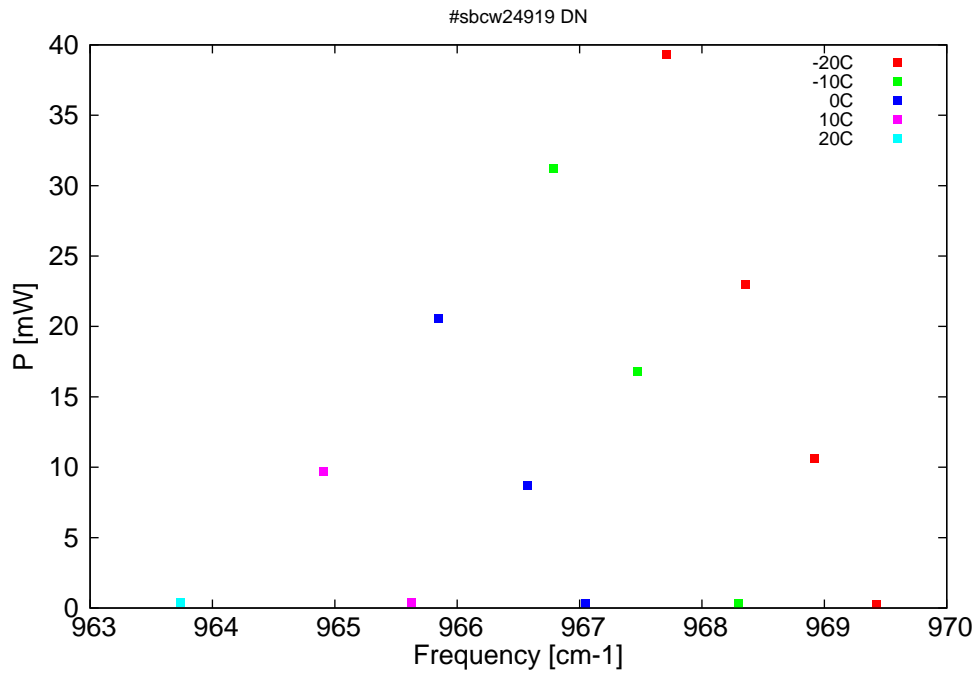


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

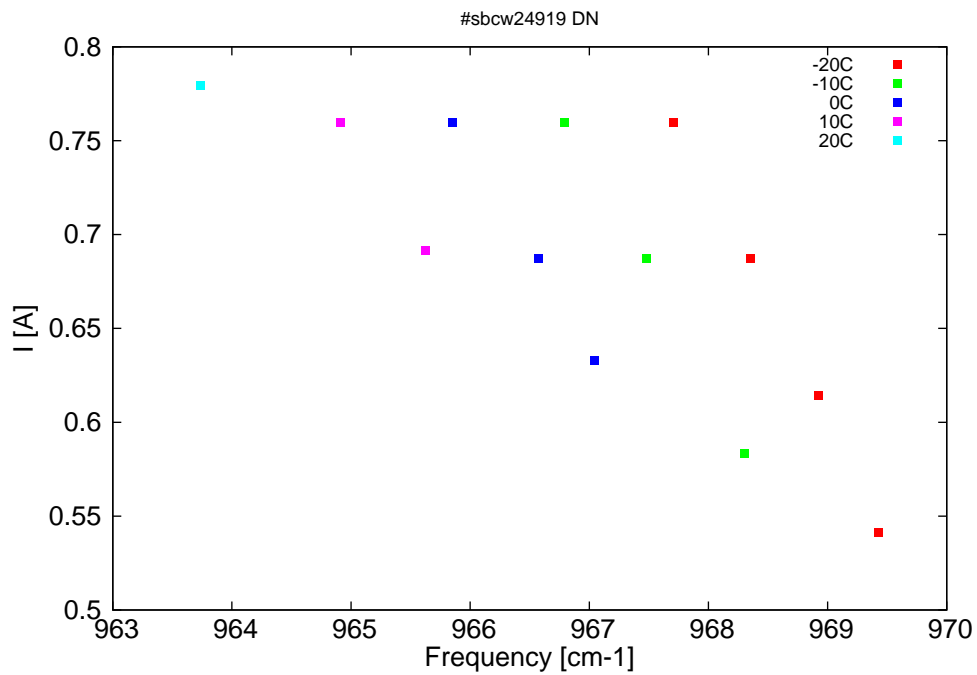


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10315.4	969.4	0.2	-20	8.81	0.542
10320.8	968.9	10.6	-20	9.13	0.614
10326.8	968.4	23	-20	9.46	0.687
10333.7	967.7	39.3	-20	9.81	0.76
10327.4	968.3	0.3	-10	8.97	0.584
10336.2	967.5	16.8	-10	9.45	0.687
10343.5	966.8	31.3	-10	9.82	0.76
10340.8	967	0.3	0	9.18	0.633
10345.8	966.6	8.7	0	9.45	0.687
10353.6	965.8	20.5	0	9.84	0.76
10356	965.6	0.4	10	9.48	0.691
10363.7	964.9	9.7	10	9.86	0.76
10376.3	963.7	0.4	20	10	0.78

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

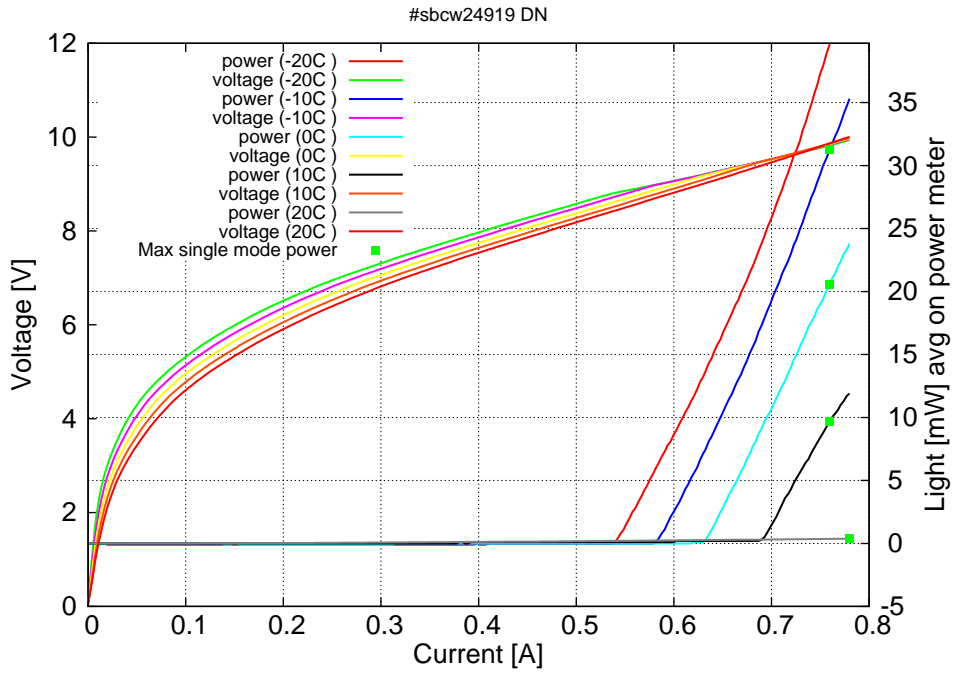


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.53A$ / $V_{th}=8.8V$ (2-wires measurements). Maximum operation current: 0.780A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

