

Datasheet for #sbcw24923 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.

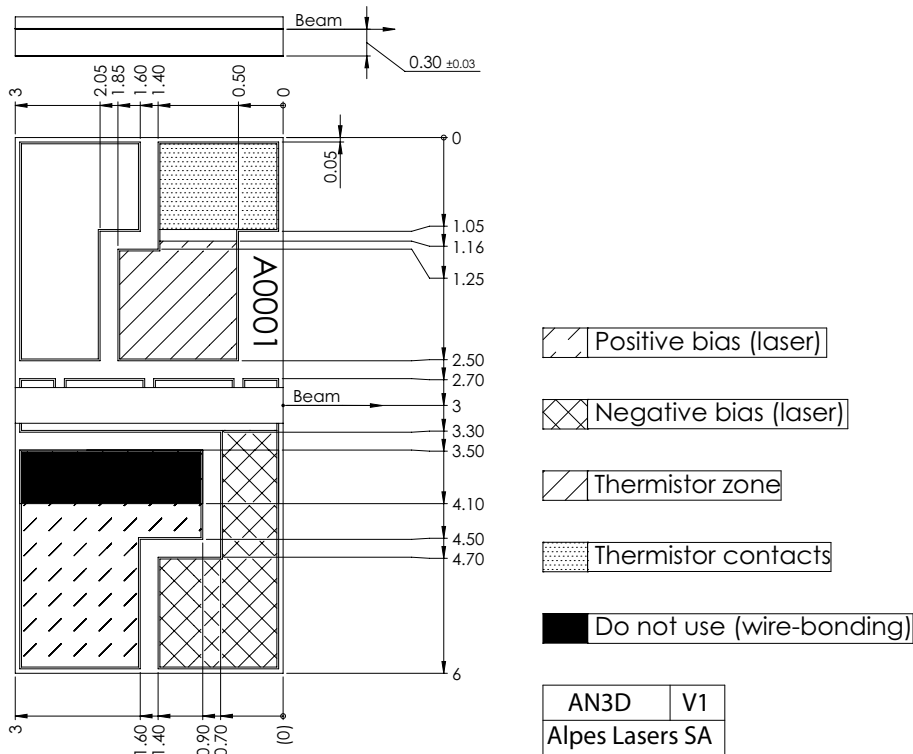


Figure 1: Mechanical and electrical interface for #sbcw24923 DN (please note that AlN submount numbering is P3760)

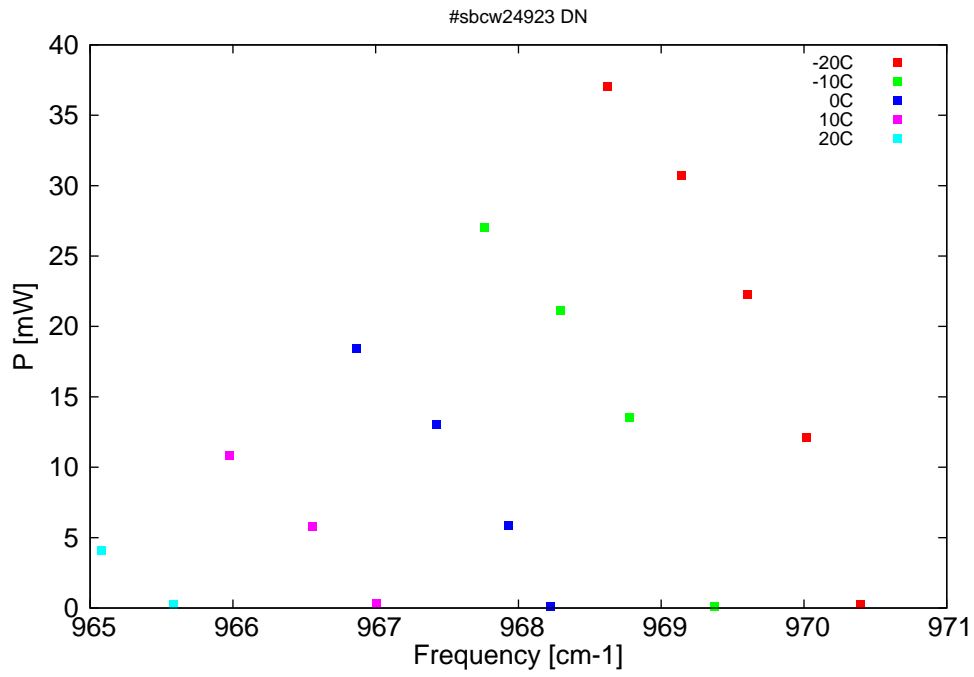


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

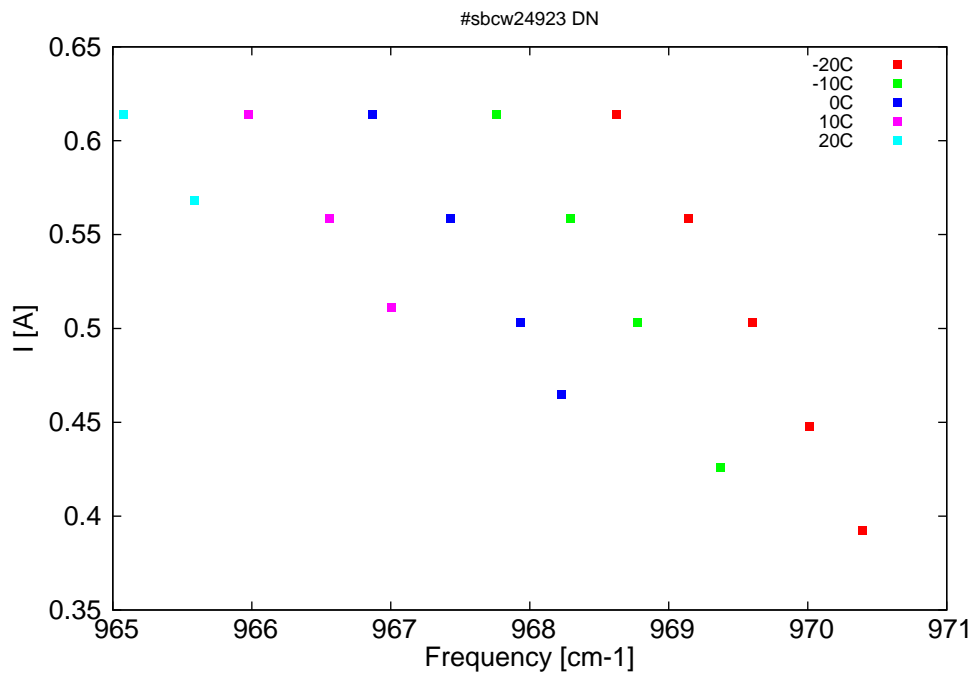


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
10305.1	970.4	0.3	-20	8.46	0.392
10309.1	970	12.1	-20	8.74	0.448
10313.5	969.6	22.3	-20	9.02	0.503
10318.4	969.1	30.7	-20	9.34	0.559
10323.9	968.6	37	-20	9.66	0.614
10316	969.4	0.1	-10	8.6	0.426
10322.3	968.8	13.6	-10	9.01	0.503
10327.4	968.3	21.1	-10	9.33	0.559
10333.1	967.8	27	-10	9.67	0.614
10328.2	968.2	0.1	0	8.79	0.465
10331.3	967.9	5.9	0	9	0.503
10336.7	967.4	13	0	9.33	0.559
10342.7	966.9	18.4	0	9.68	0.614
10341.2	967	0.3	10	9.03	0.511
10346	966.6	5.8	10	9.32	0.559
10352.2	966	10.8	10	9.68	0.614
10356.4	965.6	0.3	20	9.39	0.568
10361.8	965.1	4.1	20	9.69	0.614

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

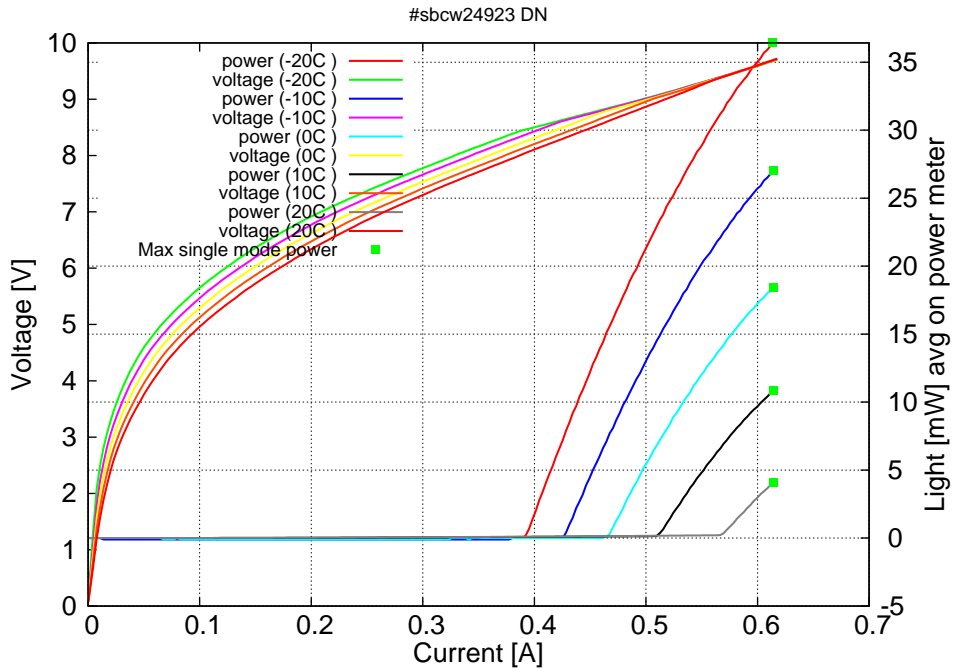


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.39A$ / $V_{th}=8.4V$ (2-wires measurements). Maximum operation current: 0.620A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

