

Datasheet for #sbcw24094 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 current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). 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.

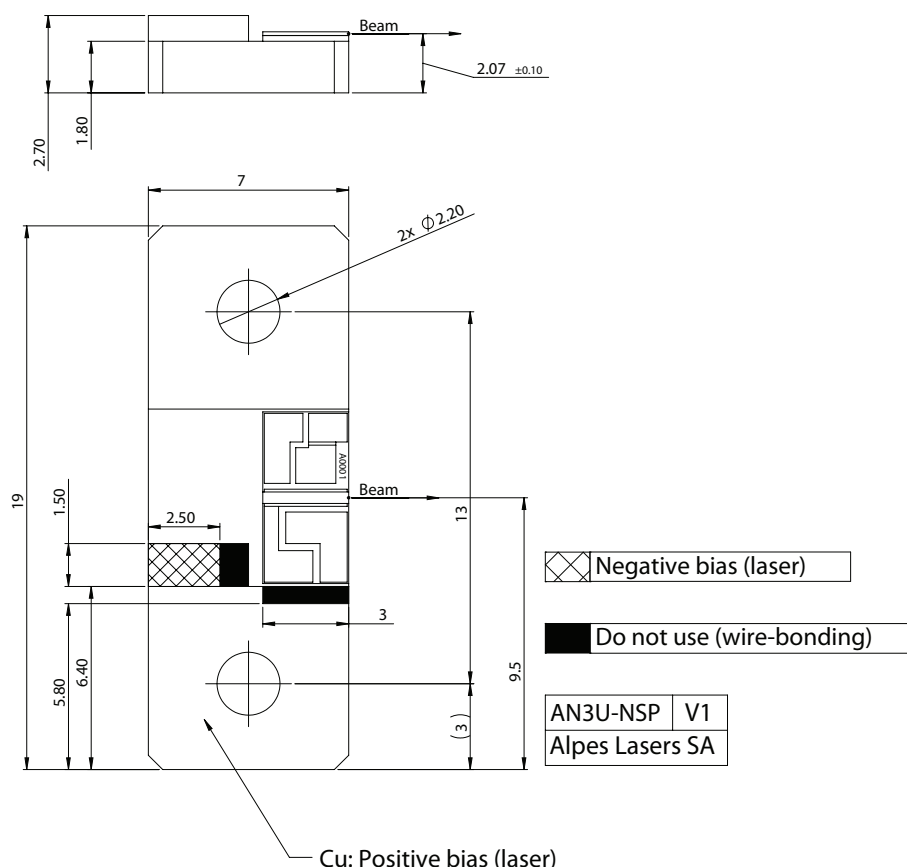


Figure 1: Mechanical and electrical interface for #sbcw24094 DN

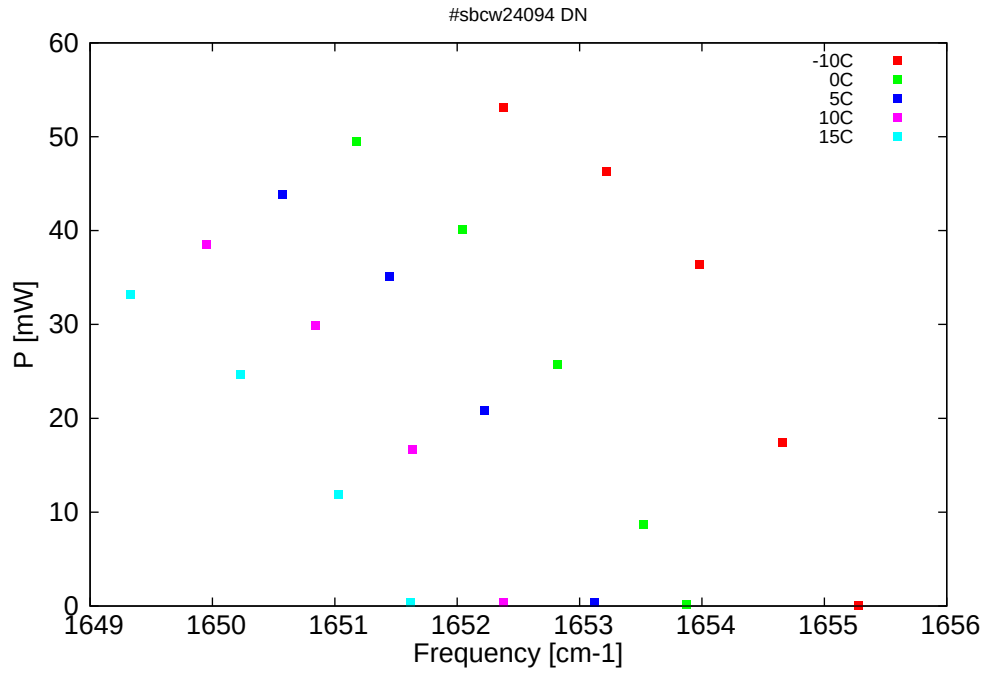


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

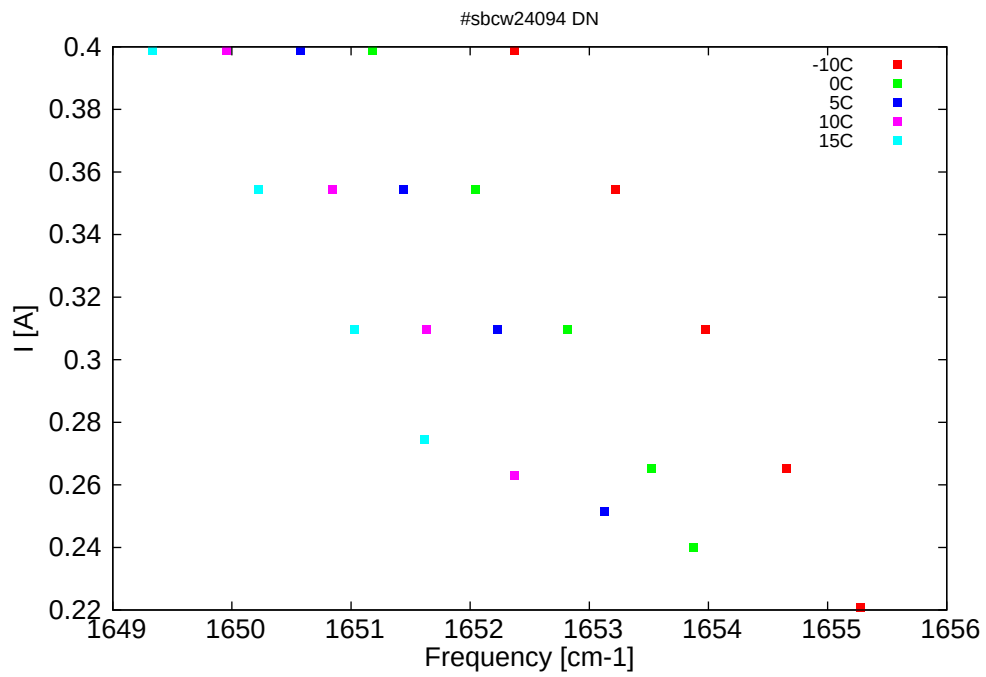


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6041.3	1655.3	0.1	-10	9.22	0.221
6043.5	1654.7	17.4	-10	9.51	0.265
6046	1654	36.4	-10	9.81	0.31
6048.8	1653.2	46.3	-10	10.11	0.354
6051.9	1652.4	53.1	-10	10.43	0.399
6046.4	1653.9	0.2	0	9.29	0.24
6047.7	1653.5	8.7	0	9.46	0.265
6050.3	1652.8	25.8	0	9.75	0.31
6053.1	1652	40.1	0	10.06	0.354
6056.3	1651.2	49.5	0	10.38	0.399
6049.2	1653.1	0.4	5	9.34	0.252
6052.4	1652.2	20.8	5	9.72	0.31
6055.3	1651.4	35.1	5	10.03	0.354
6058.5	1650.6	43.9	5	10.35	0.399
6051.9	1652.4	0.4	10	9.38	0.263
6054.6	1651.6	16.6	10	9.7	0.31
6057.5	1650.8	29.9	10	10.01	0.354
6060.8	1650	38.5	10	10.32	0.399
6054.7	1651.6	0.4	15	9.43	0.275
6056.8	1651	11.8	15	9.67	0.31
6059.8	1650.2	24.7	15	9.98	0.354
6063.1	1649.3	33.2	15	10.3	0.399

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

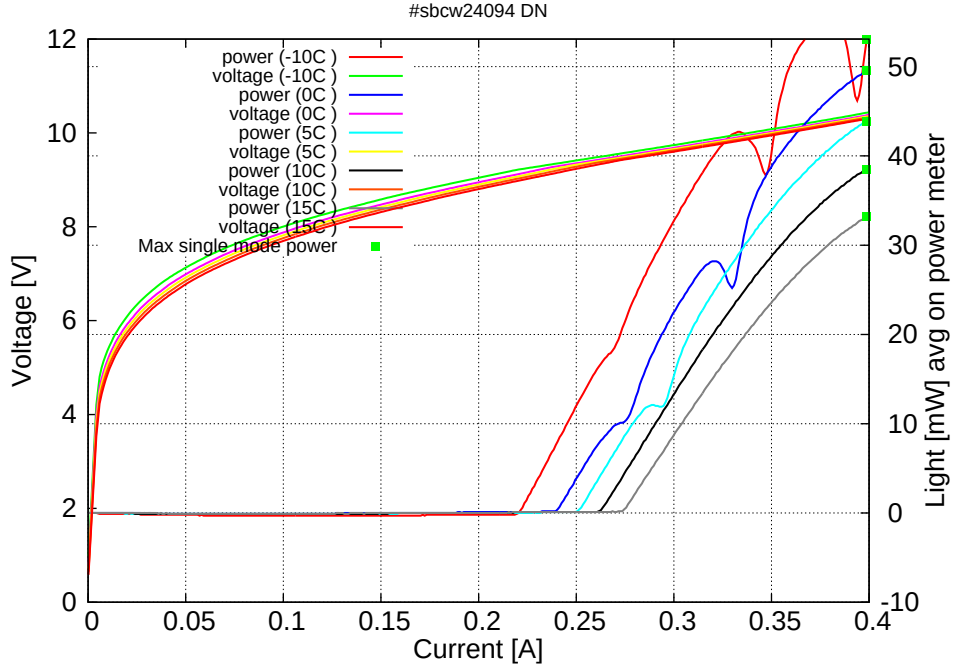


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.22A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.40A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

