

Datasheet for #sbcw21564 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 #sbcw21564 DN (please note that AlN submount numbering is A0TFE)

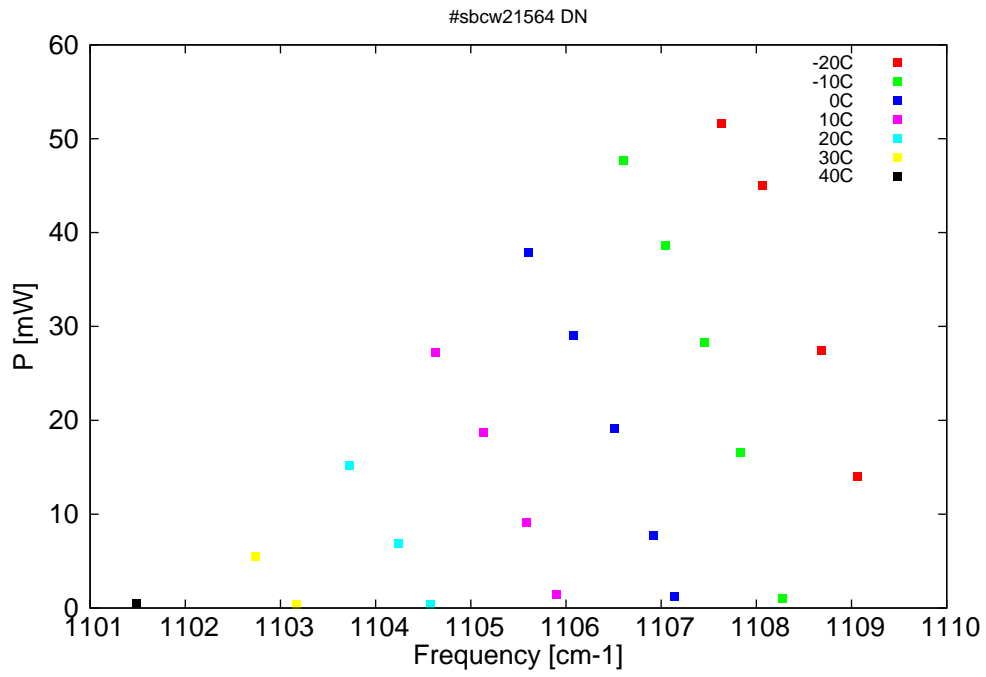


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

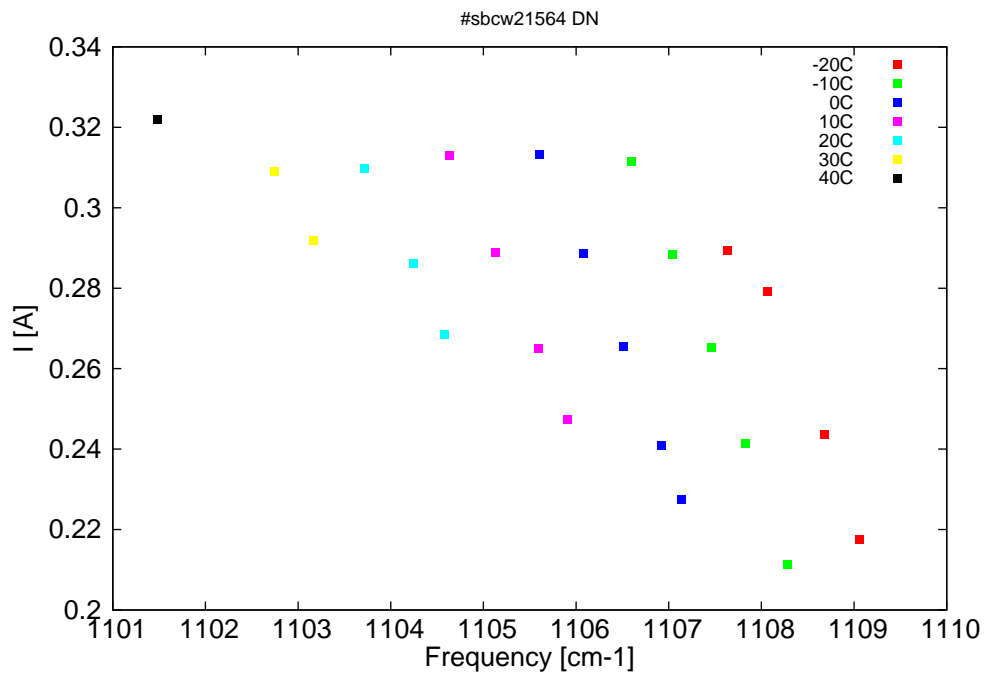


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9016.6	1109.1	14	-20	10.56	0.218
9019.7	1108.7	27.4	-20	10.91	0.244
9024.7	1108.1	45	-20	11.49	0.279
9028.3	1107.6	51.6	-20	11.81	0.289
9023	1108.3	1	-10	10.21	0.211
9026.7	1107.8	16.5	-10	10.6	0.241
9029.7	1107.5	28.3	-10	10.91	0.265
9033.1	1107	38.7	-10	11.23	0.288
9036.7	1106.6	47.7	-10	11.57	0.311
9032.3	1107.1	1.2	0	10.32	0.227
9034	1106.9	7.7	0	10.5	0.241
9037.4	1106.5	19.1	0	10.83	0.265
9040.9	1106.1	29.1	0	11.14	0.289
9044.9	1105.6	37.9	0	11.48	0.313
9042.4	1105.9	1.5	10	10.53	0.247
9045	1105.6	9.1	10	10.76	0.265
9048.7	1105.1	18.7	10	11.08	0.289
9052.8	1104.6	27.3	10	11.42	0.313
9053.3	1104.6	0.3	20	10.75	0.268
9056	1104.2	6.8	20	10.99	0.286
9060.3	1103.7	15.2	20	11.33	0.31
9064.8	1103.2	0.4	30	11.04	0.292
9068.3	1102.7	5.5	30	11.29	0.309
9078.7	1101.5	0.4	40	11.45	0.322

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

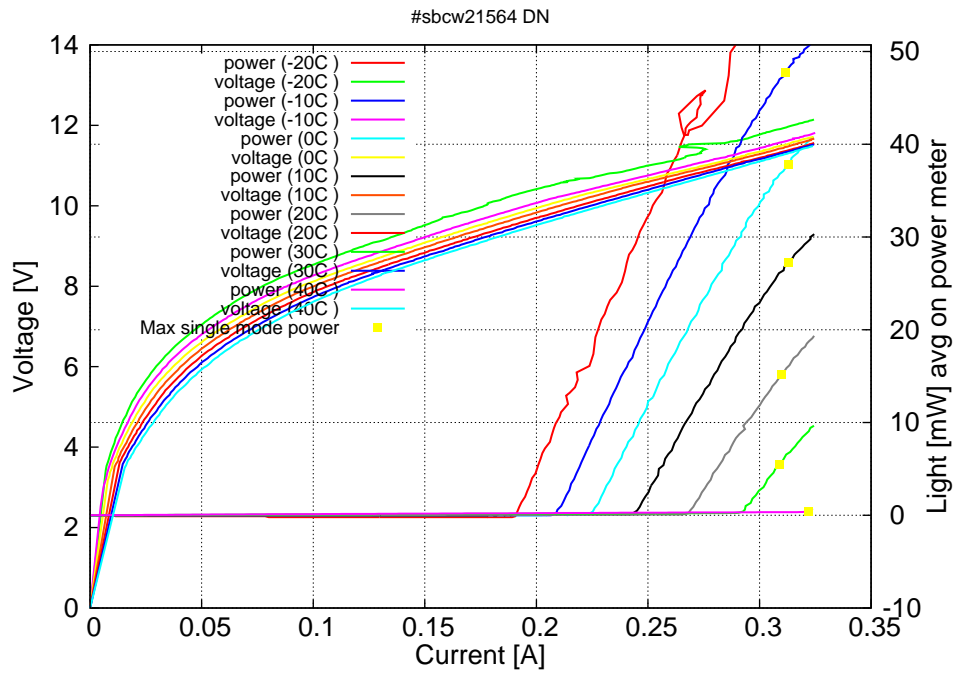


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=10.2V$ (2-wires measurements). Maximum operation current: 0.315A between -20C and 30C, 0.325A at 40C.

Figure 3: spectra at different temperatures for various DC currents

