

Datasheet for #sbcw22366 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 #sbcw22366 DN (please note that AlN submount numbering is A0TGT)

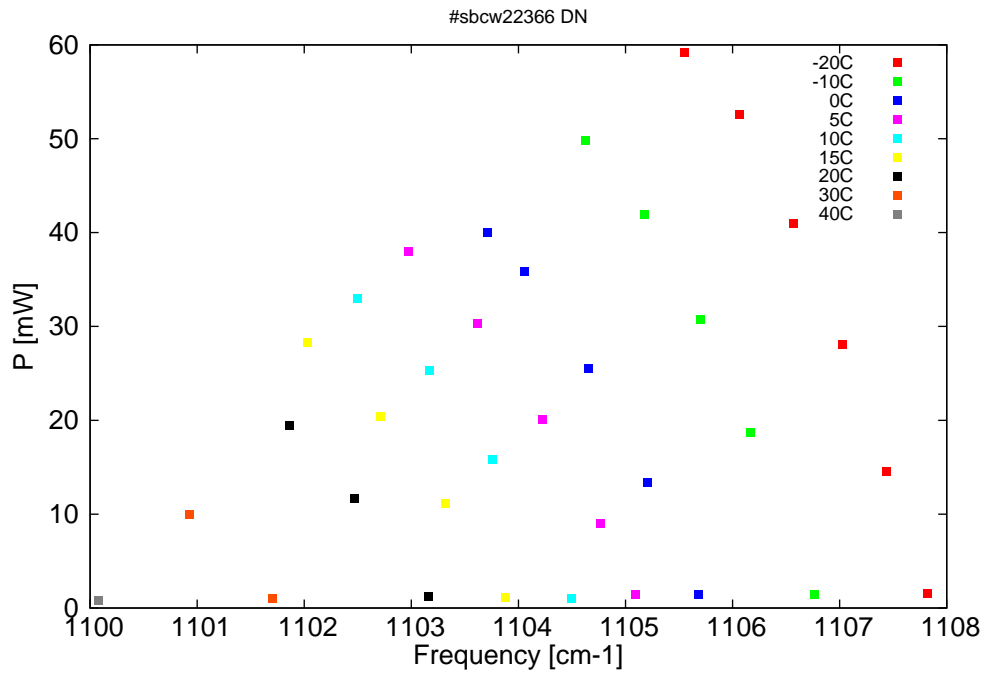


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

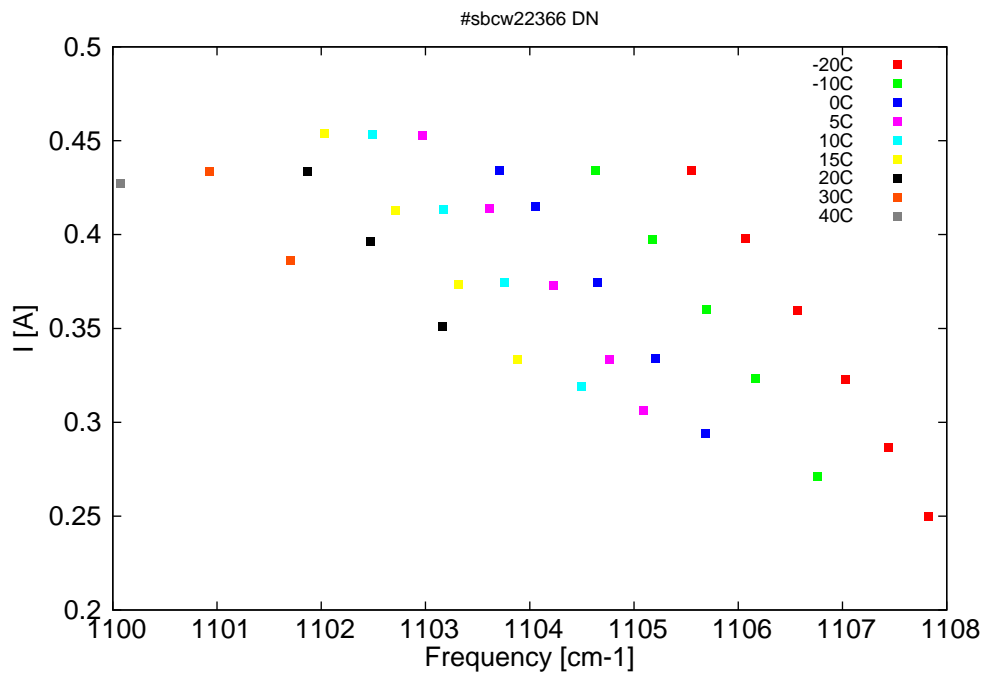


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9026.7	1107.8	1.6	-20	9.53	0.25
9029.9	1107.4	14.6	-20	9.89	0.287
9033.2	1107	28.1	-20	10.22	0.323
9036.9	1106.6	41	-20	10.56	0.36
9041	1106.1	52.5	-20	10.92	0.398
9045.3	1105.6	59.2	-20	11.27	0.434
9035.4	1106.8	1.5	-10	9.65	0.271
9040.2	1106.2	18.7	-10	10.14	0.323
9044	1105.7	30.7	-10	10.49	0.36
9048.3	1105.2	41.9	-10	10.84	0.397
9052.8	1104.6	49.8	-10	11.2	0.434
9044.2	1105.7	1.5	0	9.82	0.294
9048.1	1105.2	13.3	0	10.2	0.334
9052.6	1104.7	25.5	0	10.59	0.375
9057.5	1104.1	35.9	0	10.97	0.415
9060.4	1103.7	40.1	0	11.13	0.434
9049	1105.1	1.4	5	9.89	0.306
9051.7	1104.8	9	5	10.15	0.333
9056.1	1104.2	20	5	10.53	0.373
9061.1	1103.6	30.3	5	10.92	0.414
9066.4	1103	38	5	11.32	0.453
9053.9	1104.5	1.1	10	9.97	0.319
9060	1103.8	15.8	10	10.5	0.375
9064.8	1103.2	25.3	10	10.87	0.413
9070.3	1102.5	33	10	11.28	0.454
9059	1103.9	1.2	15	10.07	0.333
9063.6	1103.3	11.2	15	10.45	0.373
9068.6	1102.7	20.5	15	10.83	0.413
9074.2	1102	28.3	15	11.24	0.454
9064.9	1103.2	1.2	20	10.19	0.351
9070.5	1102.5	11.7	20	10.62	0.396
9075.5	1101.9	19.4	20	10.98	0.434
9076.9	1101.7	1.1	30	10.46	0.386
9083.2	1100.9	10	30	10.92	0.433
9090.3	1100.1	0.8	40	10.79	0.427

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

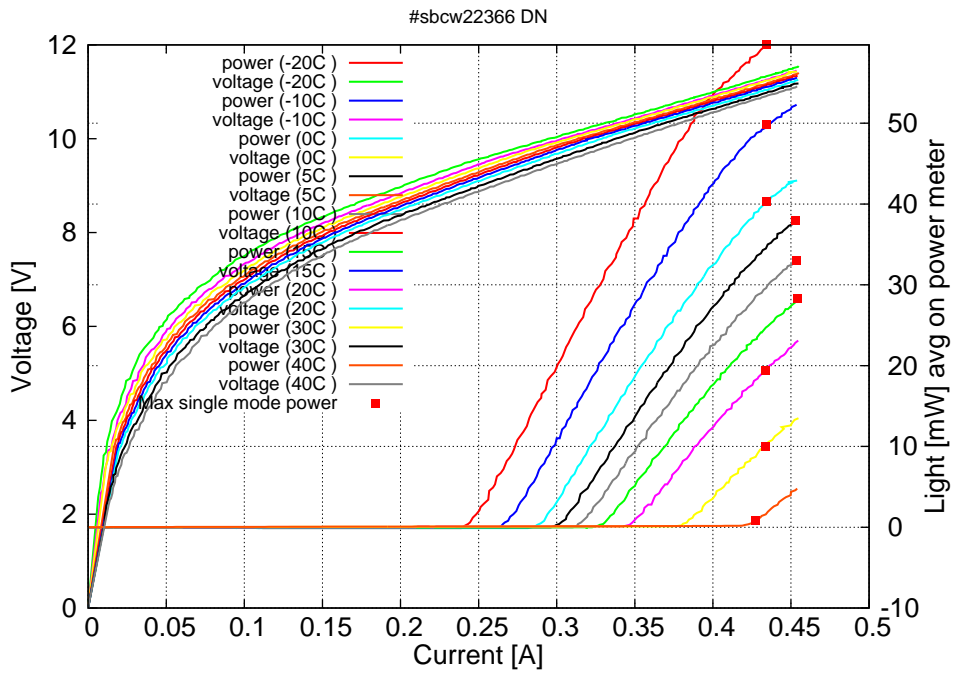


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.24A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.435A between -20C and 0C, 0.455A between 5C and 40C.

Figure 3: spectra at different temperatures for various DC currents

