

Datasheet for #sbcw25392 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 #sbcw25392 DN (please note that AlN submount numbering is A1284)

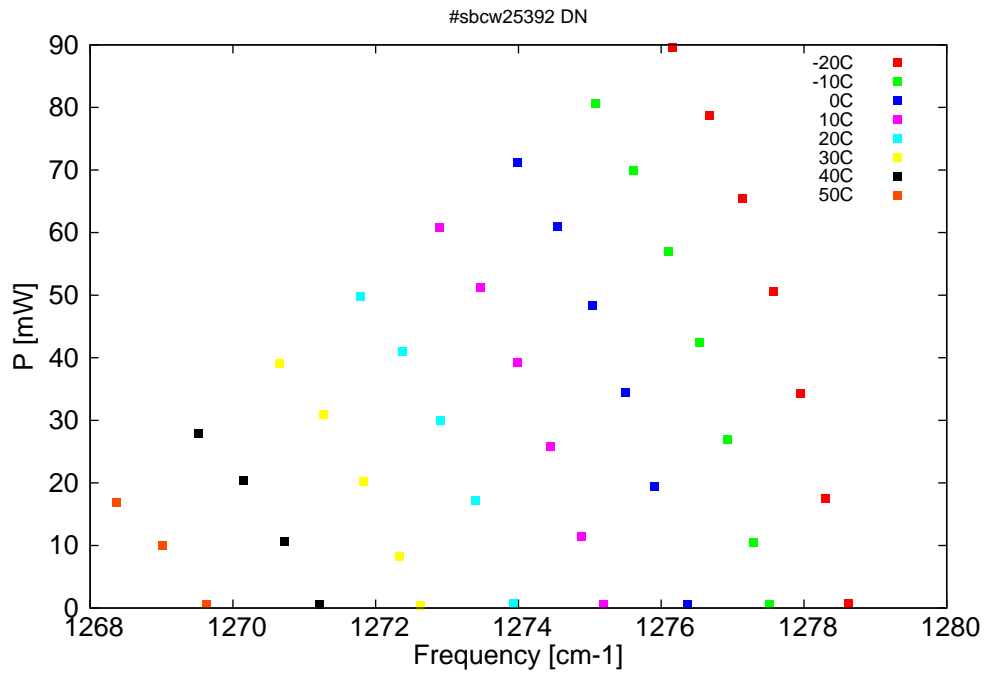


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

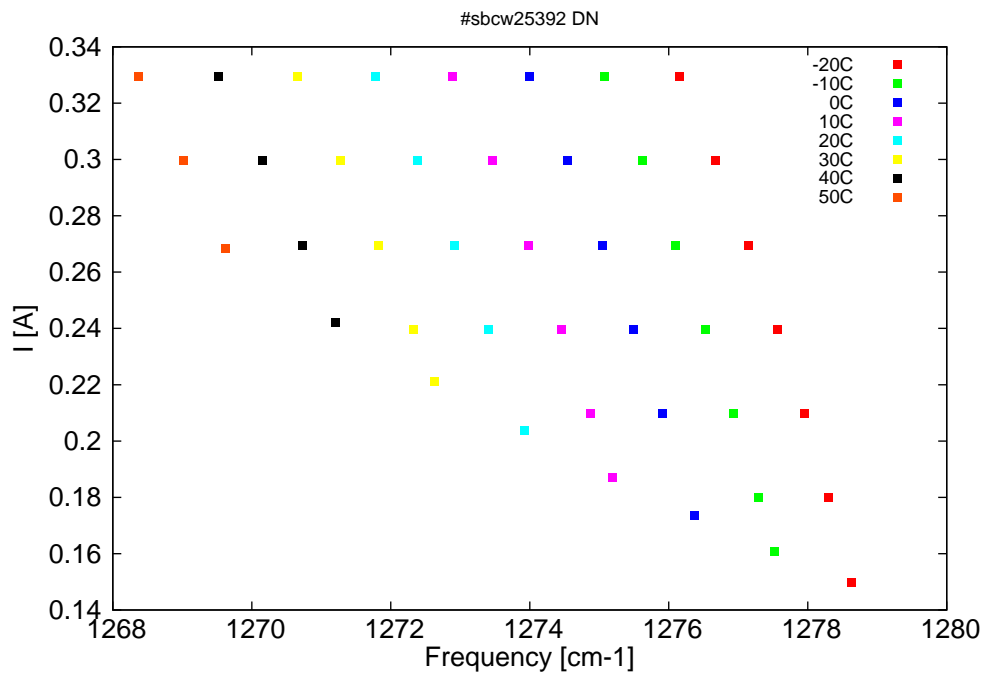


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
7820.9	1278.6	0.7	-20	8.36	0.15
7822.9	1278.3	17.5	-20	8.6	0.18
7825	1278	34.3	-20	8.84	0.21
7827.4	1277.6	50.6	-20	9.08	0.24
7830	1277.1	65.5	-20	9.31	0.27
7832.8	1276.7	78.6	-20	9.55	0.3
7836	1276.2	89.7	-20	9.79	0.329
7827.7	1277.5	0.5	-10	8.33	0.161
7829.1	1277.3	10.5	-10	8.49	0.18
7831.3	1276.9	26.9	-10	8.73	0.21
7833.7	1276.5	42.5	-10	8.96	0.24
7836.4	1276.1	57	-10	9.19	0.27
7839.3	1275.6	70	-10	9.43	0.3
7842.7	1275.1	80.6	-10	9.67	0.329
7834.7	1276.4	0.6	0	8.33	0.174
7837.5	1275.9	19.3	0	8.62	0.21
7840.1	1275.5	34.4	0	8.85	0.24
7842.9	1275	48.4	0	9.08	0.27
7845.9	1274.5	60.9	0	9.32	0.3
7849.4	1274	71.2	0	9.56	0.329
7842	1275.2	0.6	10	8.34	0.187
7843.9	1274.9	11.4	10	8.52	0.21
7846.5	1274.5	25.8	10	8.76	0.24
7849.4	1274	39.2	10	8.99	0.27
7852.6	1273.5	51.2	10	9.22	0.3
7856.1	1272.9	60.8	10	9.47	0.329
7849.7	1273.9	0.7	20	8.39	0.204
7853	1273.4	17.2	20	8.67	0.24
7856	1272.9	29.9	20	8.91	0.27
7859.3	1272.4	41.1	20	9.14	0.3
7863	1271.8	49.9	20	9.39	0.329
7857.8	1272.6	0.4	30	8.46	0.221
7859.6	1272.3	8.3	30	8.6	0.24
7862.7	1271.8	20.2	30	8.84	0.27
7866.1	1271.3	30.9	30	9.08	0.3
7869.9	1270.7	39.1	30	9.32	0.329
7866.5	1271.2	0.5	40	8.6	0.242
7869.5	1270.7	10.6	40	8.82	0.27
7873.1	1270.2	20.3	40	9.06	0.3
7877	1269.5	27.9	40	9.31	0.329
7876.3	1269.6	0.6	50	8.76	0.268
7880.1	1269	10	50	9.01	0.3
7884.2	1268.4	16.8	50	9.26	0.329

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

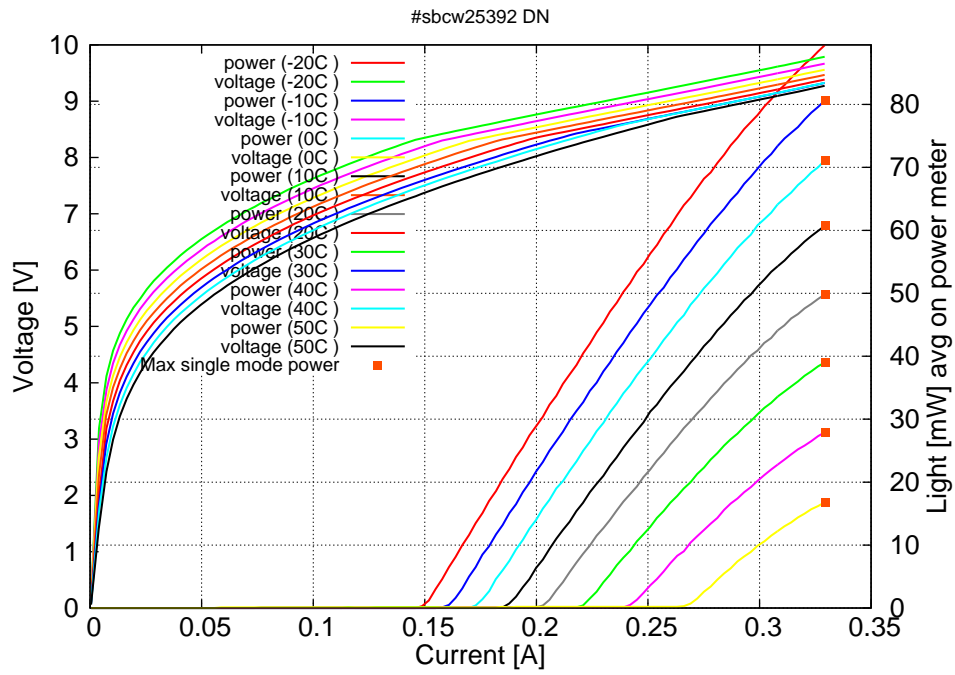


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.3V$ (2-wires measurements). Maximum operation current: 0.33A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

