

Datasheet for #sbcw24951 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 #sbcw24951 DN (please note that AlN submount numbering is A11ZV)

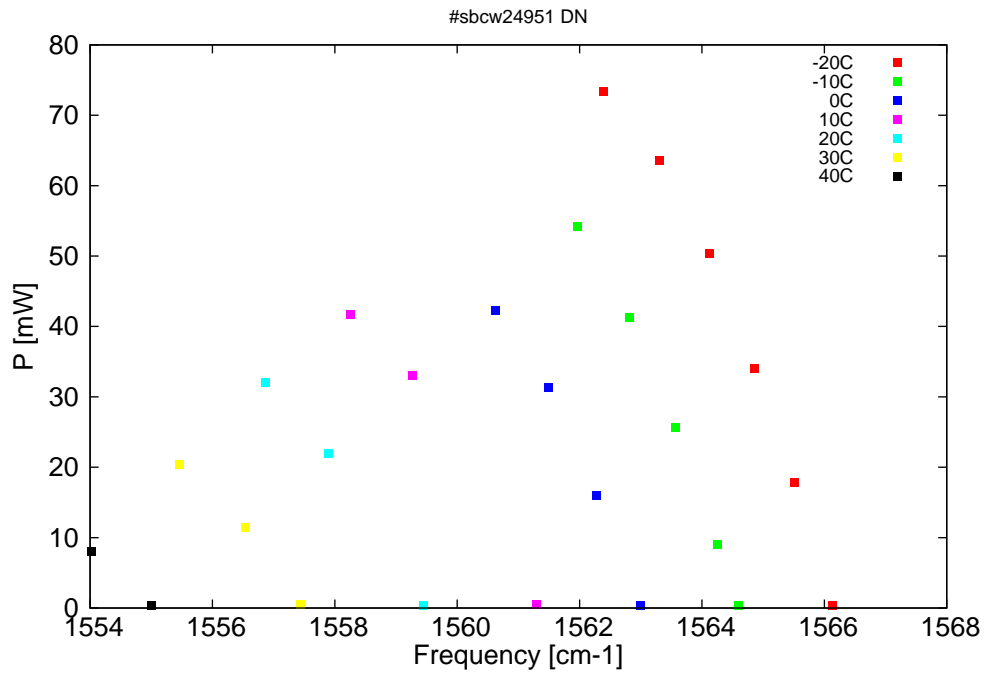


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

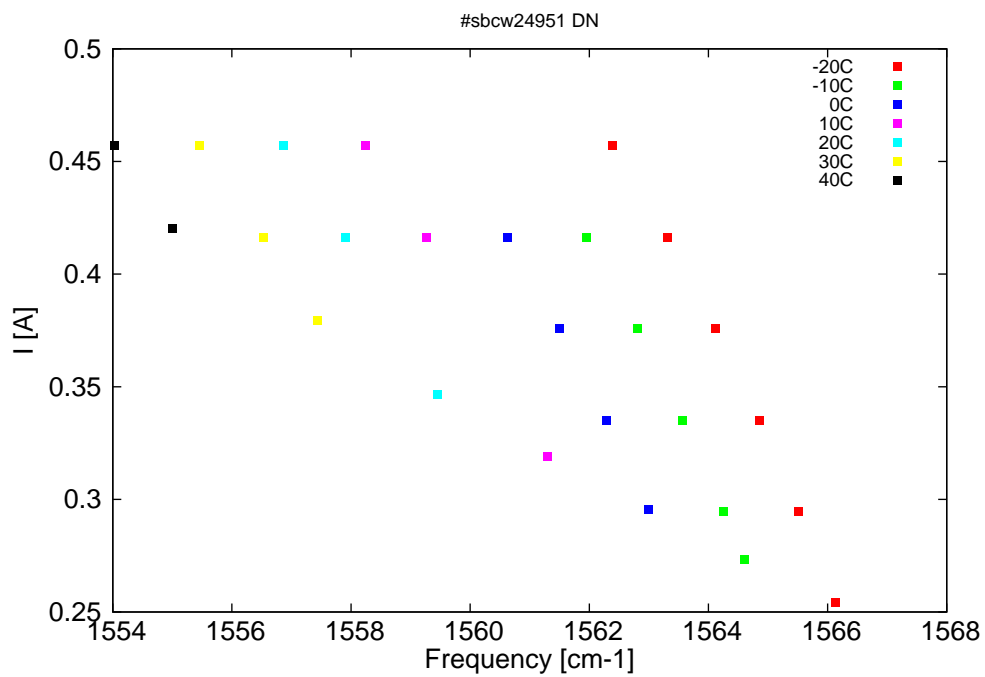


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6385.2	1566.1	0.4	-20	8.66	0.254
6387.7	1565.5	17.8	-20	8.91	0.295
6390.4	1564.9	34.1	-20	9.16	0.335
6393.4	1564.1	50.4	-20	9.42	0.376
6396.7	1563.3	63.5	-20	9.69	0.416
6400.4	1562.4	73.4	-20	9.98	0.457
6391.4	1564.6	0.4	-10	8.7	0.274
6392.8	1564.3	9.1	-10	8.83	0.295
6395.6	1563.6	25.7	-10	9.08	0.335
6398.7	1562.8	41.3	-10	9.35	0.376
6402.2	1562	54.2	-10	9.63	0.416
6398	1563	0.3	0	8.76	0.295
6400.9	1562.3	16.1	0	9.02	0.335
6404.1	1561.5	31.3	0	9.29	0.376
6407.7	1560.6	42.3	0	9.57	0.416
6404.9	1561.3	0.5	10	8.85	0.319
6413.3	1559.3	33.1	10	9.51	0.416
6417.5	1558.2	41.7	10	9.81	0.457
6412.5	1559.5	0.4	20	8.97	0.347
6418.9	1557.9	21.9	20	9.45	0.416
6423.2	1556.9	32.1	20	9.75	0.457
6420.8	1557.4	0.5	30	9.13	0.379
6424.5	1556.5	11.4	30	9.4	0.416
6429	1555.5	20.4	30	9.7	0.457
6430.8	1555	0.4	40	9.37	0.42
6434.9	1554	8	40	9.65	0.457

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

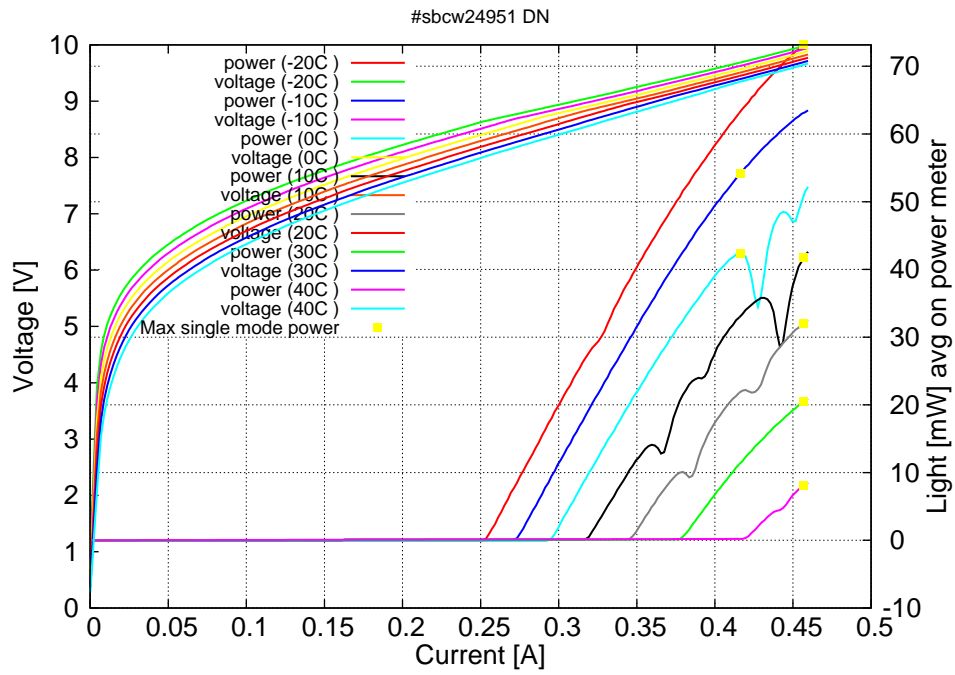


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.25A$ / $V_{th}=8.6V$ (2-wires measurements). Maximum operation current: 0.460A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

