

Datasheet for #sbcw25029 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 #sbcw25029 DN (please note that AlN submount numbering is A11Z2)

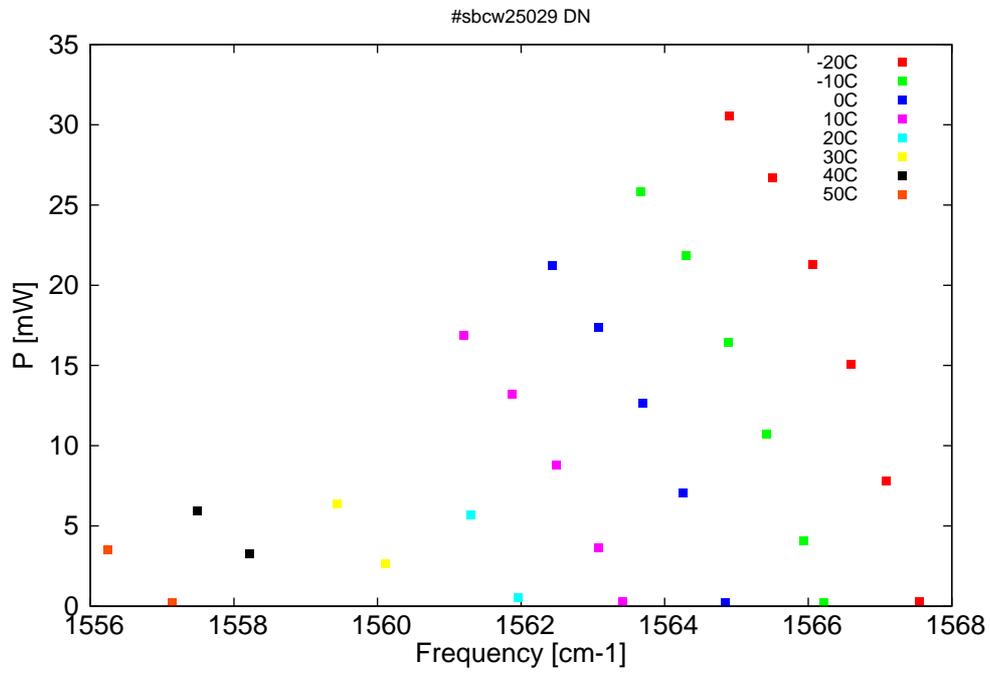


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

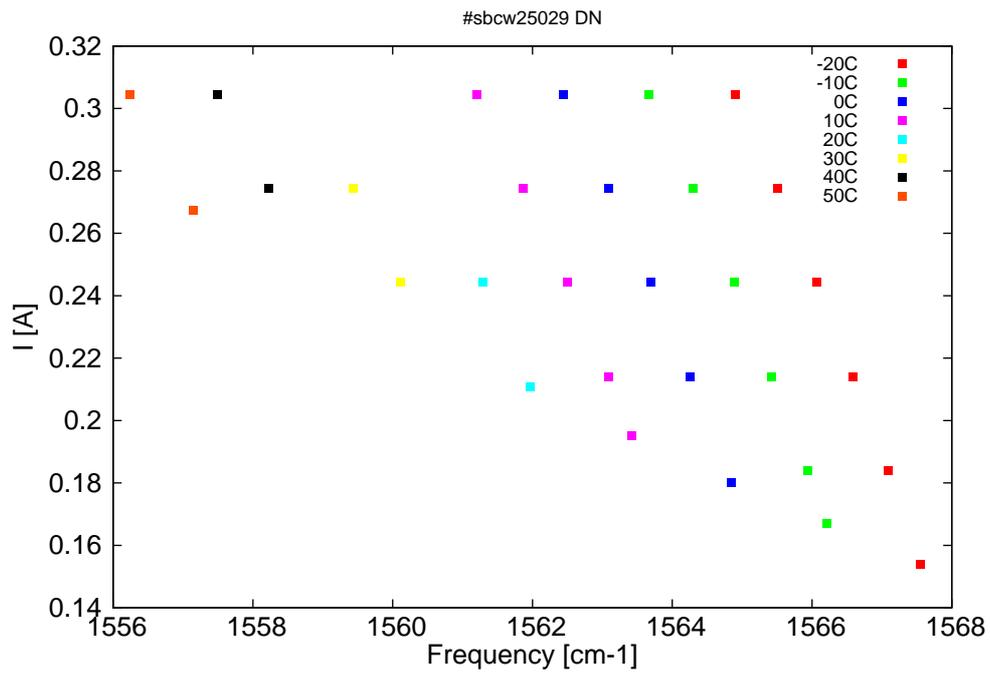


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6379.4	1567.5	0.3	-20	8.78	0.154
6381.3	1567.1	7.8	-20	9.06	0.184
6383.3	1566.6	15.1	-20	9.34	0.214
6385.4	1566.1	21.3	-20	9.61	0.244
6387.7	1565.5	26.7	-20	9.87	0.274
6390.2	1564.9	30.6	-20	10.14	0.305
6384.8	1566.2	0.2	-10	8.81	0.167
6385.9	1565.9	4.1	-10	8.97	0.184
6388	1565.4	10.7	-10	9.26	0.214
6390.3	1564.9	16.4	-10	9.52	0.244
6392.7	1564.3	21.9	-10	9.8	0.274
6395.2	1563.7	25.8	-10	10.07	0.305
6390.4	1564.8	0.2	0	8.88	0.18
6392.8	1564.3	7.1	0	9.21	0.214
6395.1	1563.7	12.6	0	9.49	0.244
6397.6	1563.1	17.4	0	9.77	0.274
6400.3	1562.4	21.2	0	10.05	0.305
6396.2	1563.4	0.3	10	8.98	0.195
6397.6	1563.1	3.7	10	9.16	0.214
6400	1562.5	8.8	10	9.46	0.244
6402.6	1561.9	13.2	10	9.74	0.274
6405.3	1561.2	16.8	10	10.03	0.305
6402.2	1562	0.5	20	9.09	0.211
6404.9	1561.3	5.7	20	9.43	0.244
6409.8	1560.1	2.6	30	9.39	0.244
6412.6	1559.4	6.4	30	9.67	0.274
6417.6	1558.2	3.2	40	9.54	0.274
6420.6	1557.5	5.9	40	9.84	0.305
6422	1557.1	0.2	50	9.44	0.268
6425.7	1556.2	3.5	50	9.8	0.305

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

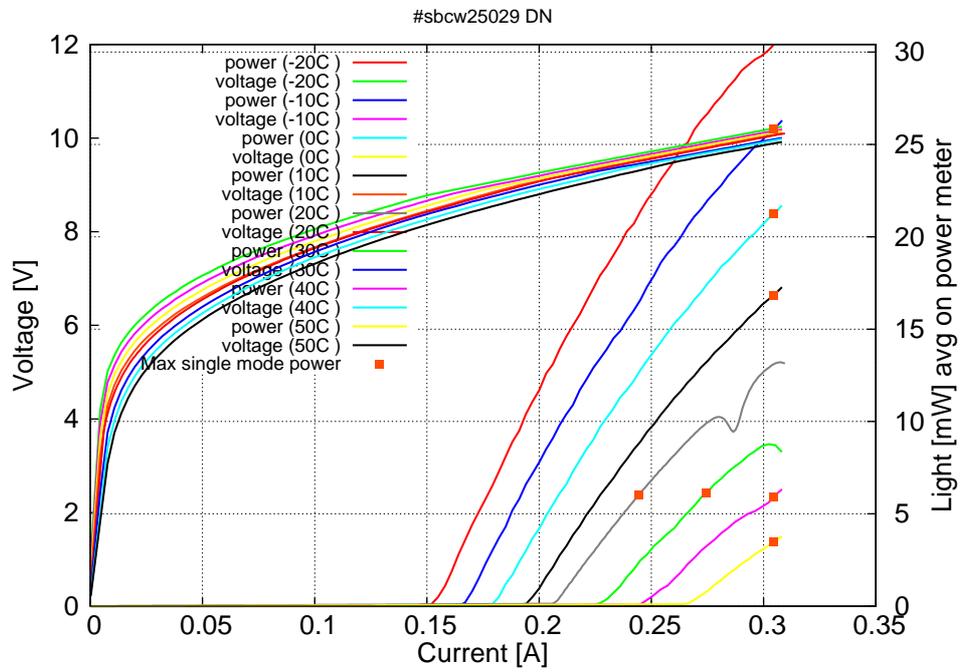


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.15A$ / $V_{th}=8.75V$ (2-wires measurements). Maximum operation current: 0.310A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

