

Datasheet for #sbcw24887 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 #sbcw24887 DN (please note that AlN submount numbering is A10D4)

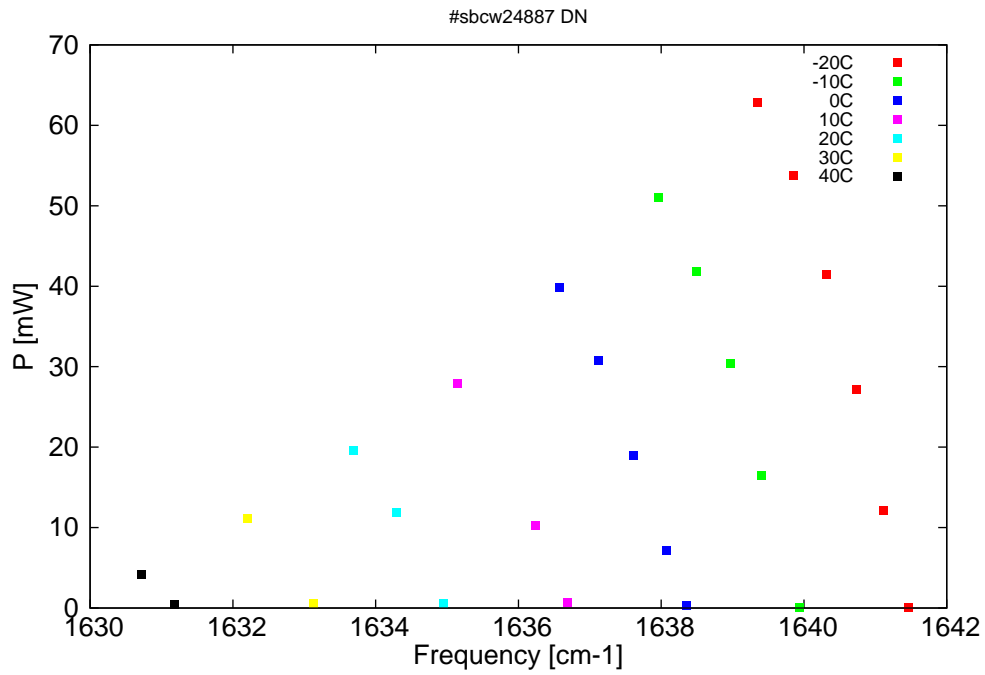


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

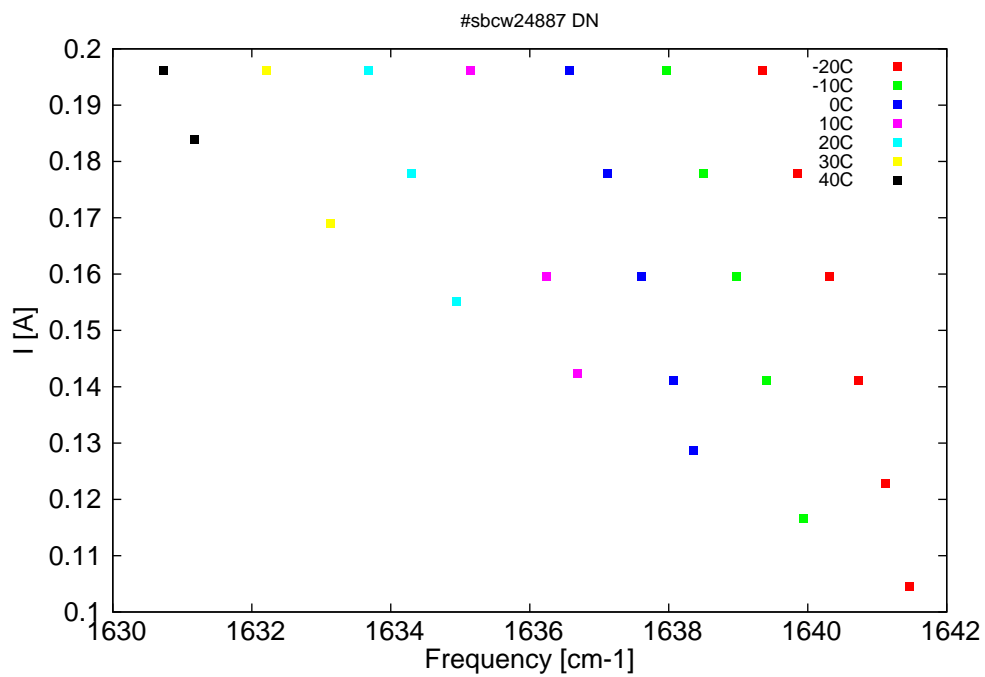


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6092.1	1641.5	0.1	-20	9.4	0.105
6093.4	1641.1	12.1	-20	9.67	0.123
6094.8	1640.7	27.1	-20	9.93	0.141
6096.4	1640.3	41.5	-20	10.19	0.16
6098.1	1639.9	53.8	-20	10.46	0.178
6100	1639.3	62.8	-20	10.73	0.196
6097.8	1639.9	0.1	-10	9.51	0.117
6099.8	1639.4	16.5	-10	9.86	0.141
6101.4	1639	30.4	-10	10.13	0.16
6103.1	1638.5	41.9	-10	10.39	0.178
6105.1	1638	51	-10	10.67	0.196
6103.7	1638.4	0.4	0	9.62	0.129
6104.7	1638.1	7.2	0	9.8	0.141
6106.4	1637.6	19	0	10.06	0.16
6108.3	1637.1	30.8	0	10.33	0.178
6110.3	1636.6	39.8	0	10.61	0.196
6109.9	1636.7	0.6	10	9.75	0.142
6111.6	1636.2	10.3	10	10	0.16
6115.7	1635.1	27.9	10	10.55	0.196
6116.4	1634.9	0.6	20	9.87	0.155
6118.9	1634.3	11.9	20	10.2	0.178
6121.1	1633.7	19.6	20	10.49	0.196
6123.2	1633.1	0.5	30	10.01	0.169
6126.7	1632.2	11.1	30	10.42	0.196
6130.5	1631.2	0.4	40	10.17	0.184
6132.2	1630.7	4.1	40	10.35	0.196

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

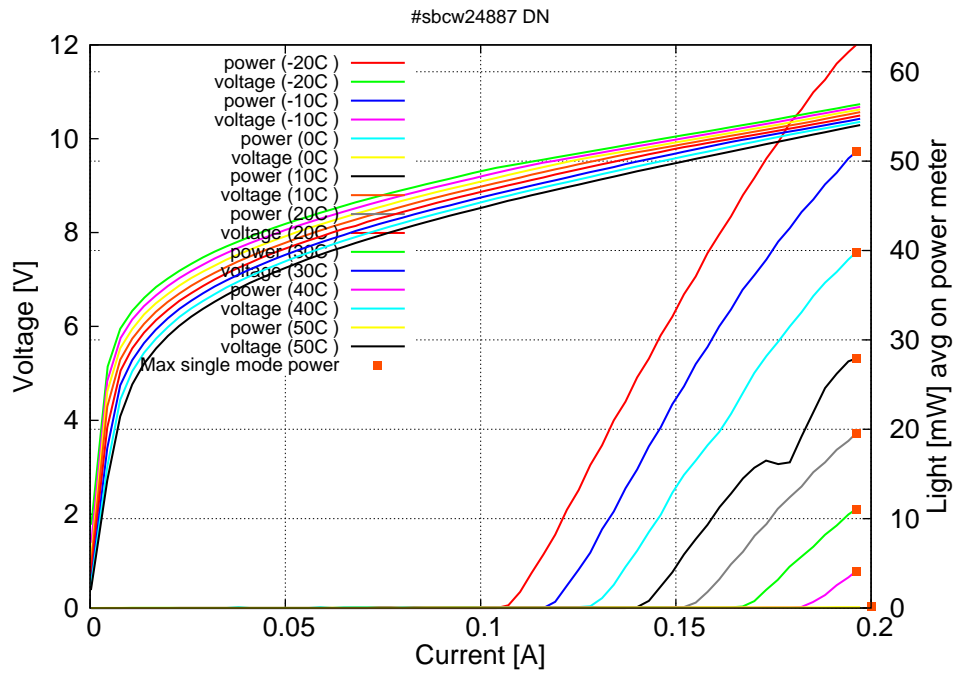


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.10A$ / $V_{th}=9.4V$ (2-wires measurements). Maximum operation current: 0.200A for all temperatures.

Figure 3: spectra at different temperatures for various DC currents

