

Datasheet for #sbcw26860 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <https://www.alpeslasers.ch/resources/#faq>

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.

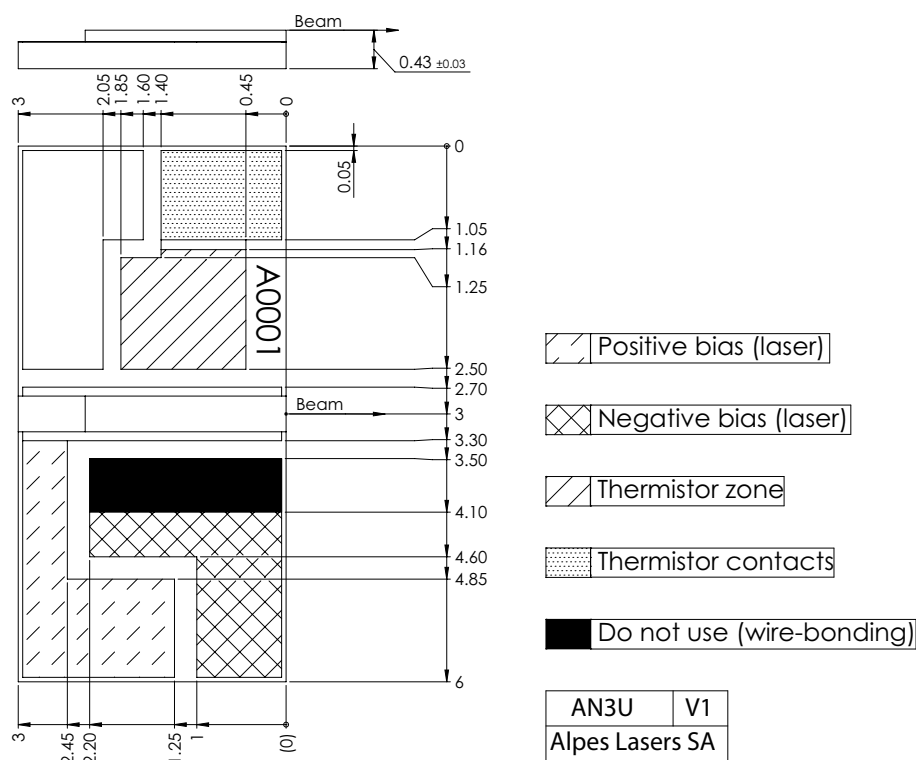


Figure 1: Mechanical and electrical interface for #sbcw26860 DN (please note that AlN submount numbering is A0VED)

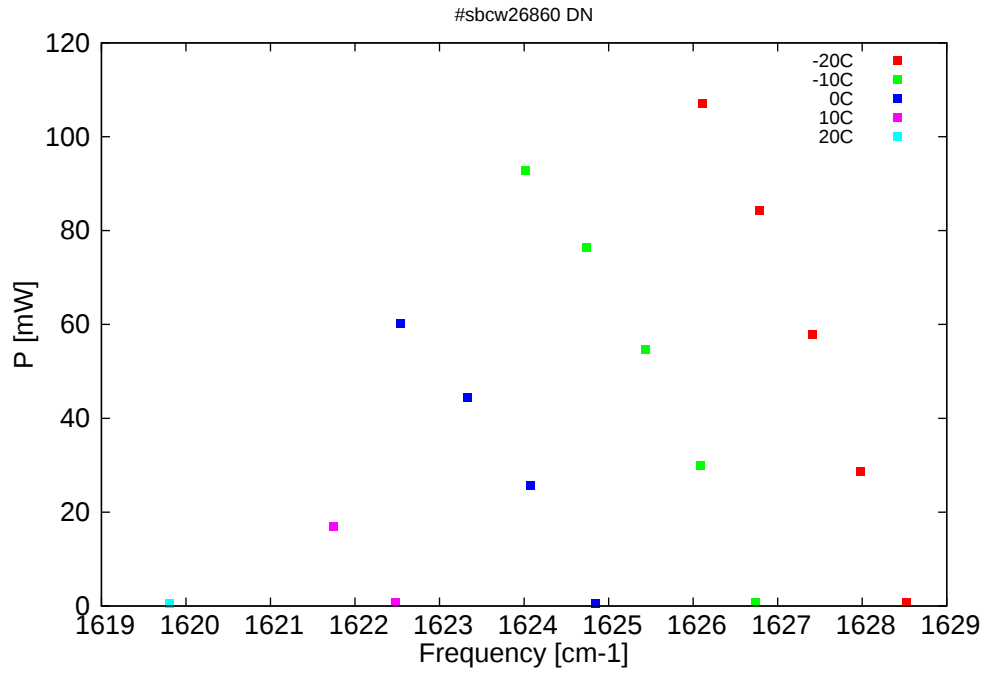


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

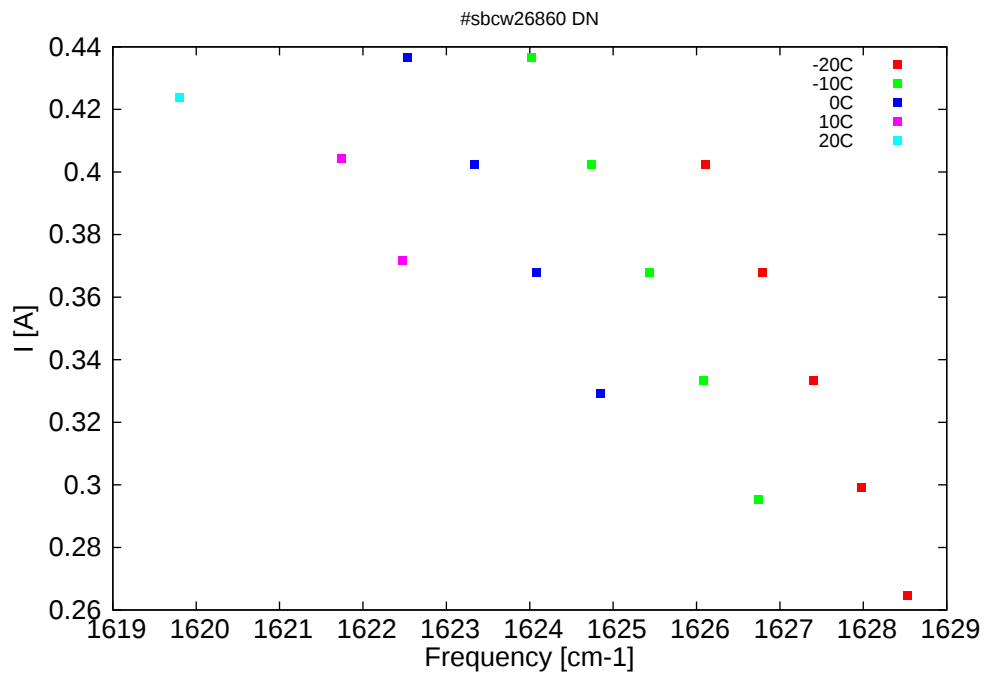


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
6140.5	1628.5	0.7	-20	9.22	0.265
6142.6	1628	28.7	-20	9.43	0.299
6144.7	1627.4	57.8	-20	9.63	0.333
6147.1	1626.8	84.3	-20	9.84	0.368
6149.6	1626.1	107	-20	10.04	0.402
6147.3	1626.7	0.8	-10	9.35	0.295
6149.7	1626.1	29.9	-10	9.58	0.333
6152.2	1625.4	54.6	-10	9.79	0.368
6154.8	1624.7	76.4	-10	10	0.402
6157.6	1624	92.8	-10	10.2	0.437
6154.4	1624.8	0.5	0	9.51	0.329
6157.3	1624.1	25.6	0	9.75	0.368
6160.2	1623.3	44.4	0	9.96	0.402
6163.2	1622.5	60.2	0	10.18	0.437
6163.4	1622.5	0.7	10	9.9	0.372
6166.2	1621.7	16.9	10	10.12	0.404
6173.6	1619.8	0.5	20	10.21	0.424

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

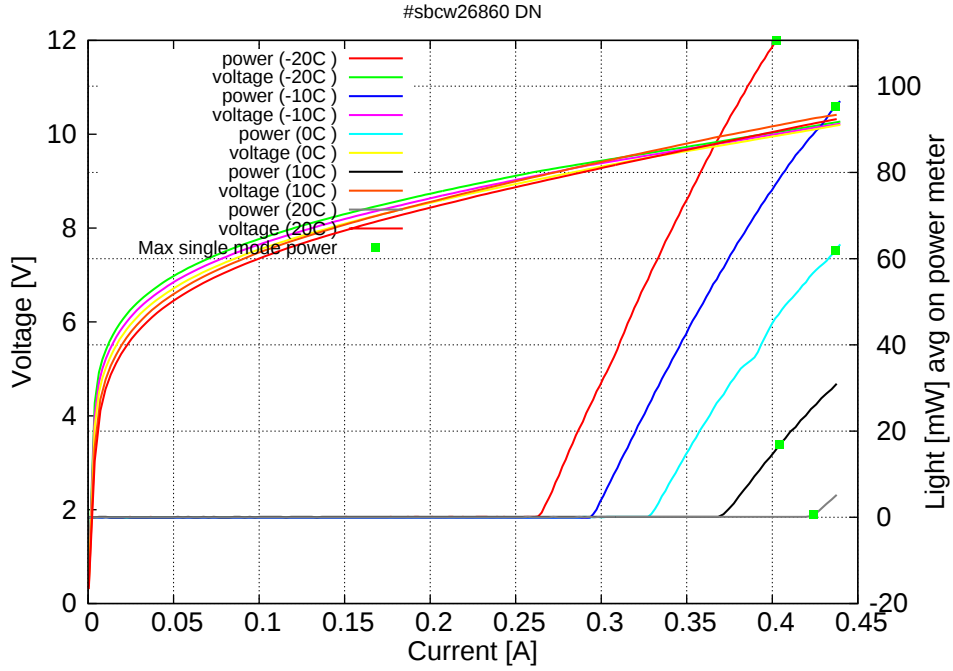


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.26A$ / $V_{th}=9.2V$ (2-wires measurements). Maximum operation current: 0.40A at -20C, 0.44A between -10C and 20C.

Figure 3: spectra at different temperatures for various DC currents

