

Datasheet for #sbcw26140 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.

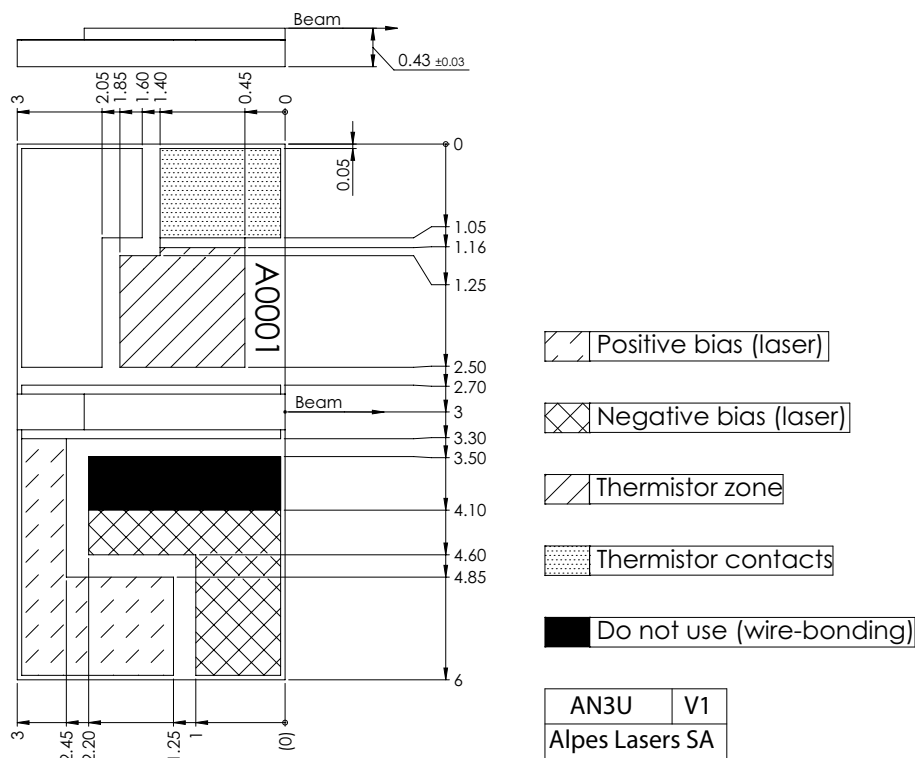


Figure 1: Mechanical and electrical interface for #sbcw26140 DN (please note that AlN submount numbering is A0U41)

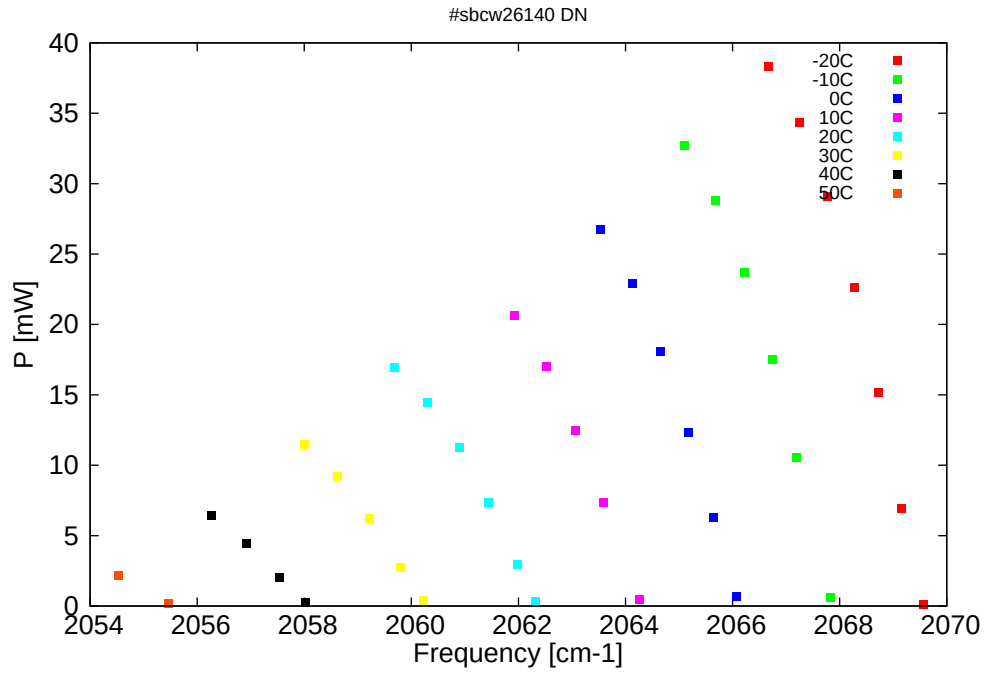


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

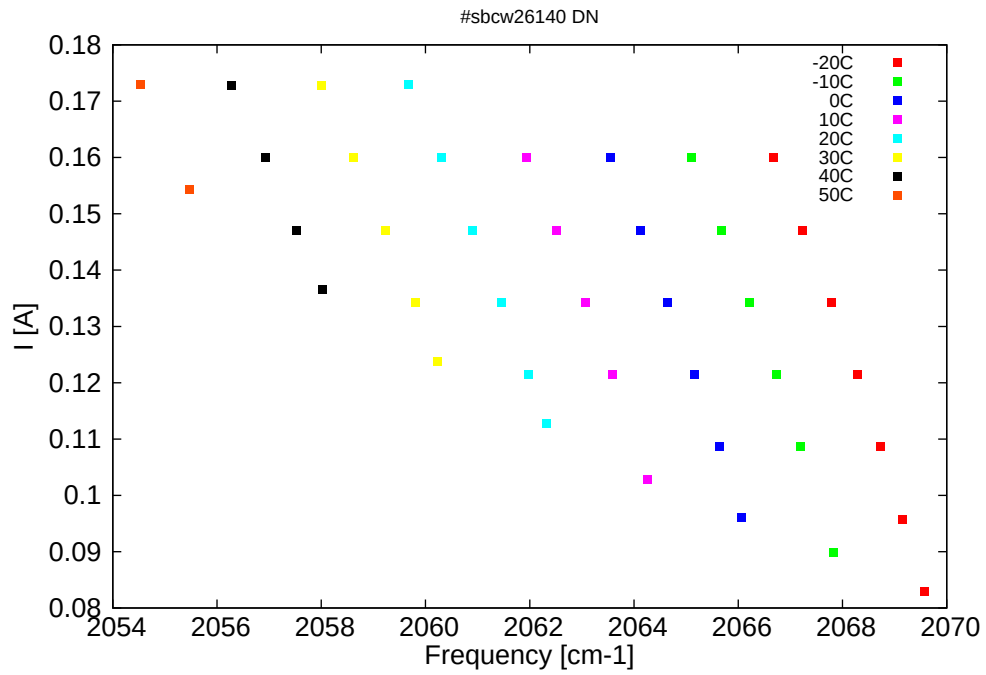


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

$\lambda[\text{nm}]$	$\nu[\text{cm}^{-1}]$	P[mW]	Temp[°C]	$U_{LASER}[\text{V}]$	I[A]
4831.9	2069.6	0.1	-20	12.53	0.083
4832.9	2069.2	7	-20	12.84	0.096
4833.9	2068.7	15.2	-20	13.15	0.109
4834.9	2068.3	22.6	-20	13.47	0.121
4836.1	2067.8	29.1	-20	13.79	0.134
4837.4	2067.2	34.3	-20	14.13	0.147
4838.7	2066.7	38.3	-20	14.51	0.16
4836	2067.8	0.6	-10	12.51	0.09
4837.5	2067.2	10.5	-10	12.94	0.109
4838.5	2066.7	17.5	-10	13.24	0.121
4839.7	2066.2	23.7	-10	13.54	0.134
4841	2065.7	28.8	-10	13.86	0.147
4842.4	2065.1	32.7	-10	14.21	0.16
4840.1	2066.1	0.7	0	12.5	0.096
4841.1	2065.6	6.3	0	12.76	0.109
4842.2	2065.2	12.3	0	13.05	0.121
4843.4	2064.7	18.1	0	13.35	0.134
4844.7	2064.1	22.9	0	13.65	0.147
4846	2063.5	26.8	0	13.97	0.16
4844.3	2064.3	0.4	10	12.5	0.103
4845.9	2063.6	7.4	10	12.89	0.121
4847.2	2063.1	12.5	10	13.17	0.134
4848.4	2062.5	17	10	13.46	0.147
4849.8	2061.9	20.6	10	13.77	0.16
4848.9	2062.3	0.4	20	12.59	0.113
4849.7	2062	2.9	20	12.76	0.121
4851	2061.4	7.4	20	13.03	0.134
4852.3	2060.9	11.2	20	13.31	0.147
4853.6	2060.3	14.5	20	13.6	0.16
4855.1	2059.7	17	20	13.91	0.173
4853.8	2060.2	0.4	30	12.71	0.124
4854.8	2059.8	2.8	30	12.91	0.134
4856.2	2059.2	6.2	30	13.17	0.147
4857.6	2058.6	9.2	30	13.45	0.16
4859.1	2058	11.5	30	13.75	0.173
4859	2058	0.3	40	12.86	0.137
4860.2	2057.5	2	40	13.07	0.147
4861.6	2056.9	4.4	40	13.33	0.16
4863.2	2056.3	6.4	40	13.61	0.173
4865.1	2055.5	0.2	50	13.13	0.154
4867.3	2054.5	2.2	50	13.5	0.173

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

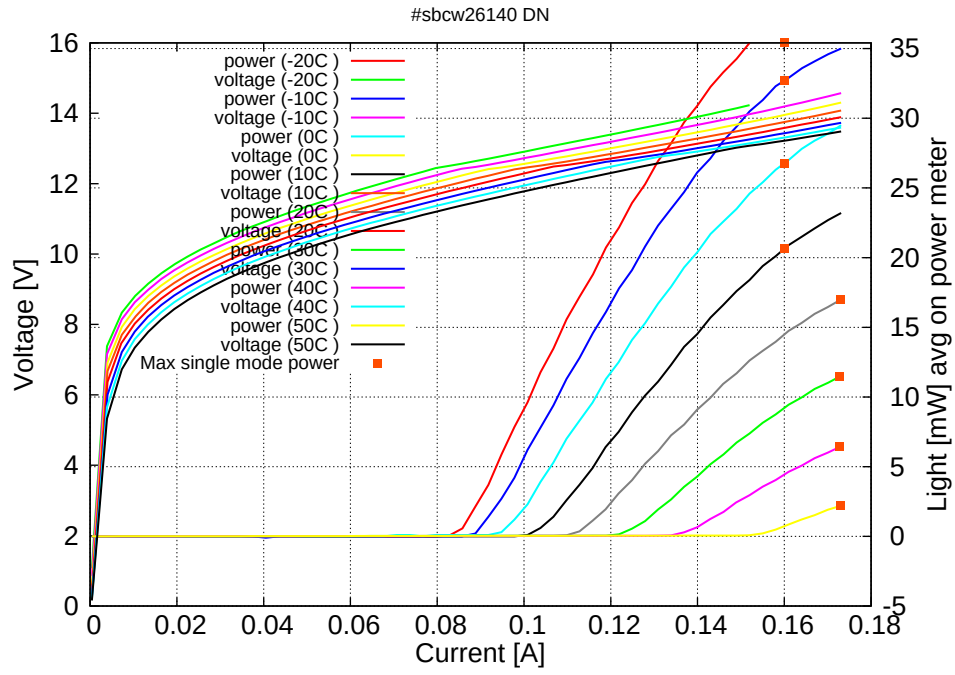


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.08A$ / $V_{th}=12.6V$ (2-wires measurements). Maximum operation current: 0.16A between -20C and 10C, 0.175A between 20C and 50C.

Figure 3: spectra at different temperatures for various DC currents

