

Datasheet for #sbcw12032 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 use with an ILX Lightwave LDX-3232 laser driver, or equivalent.



Figure 1: Support mounting for #sbcw12032 DN (please note that AlN submount numbering is A064X)

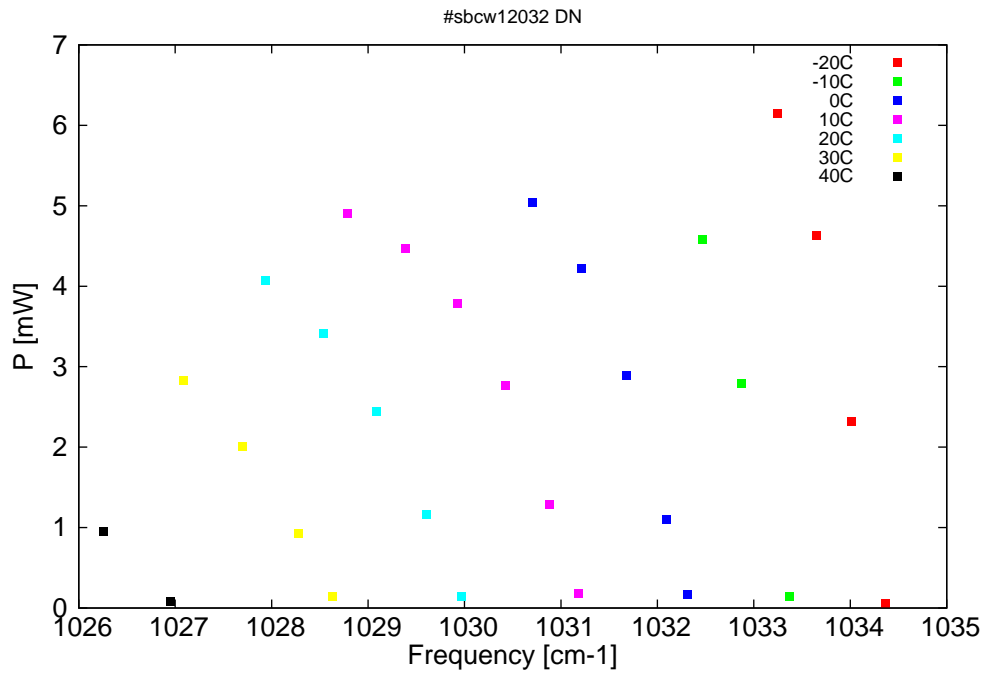


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

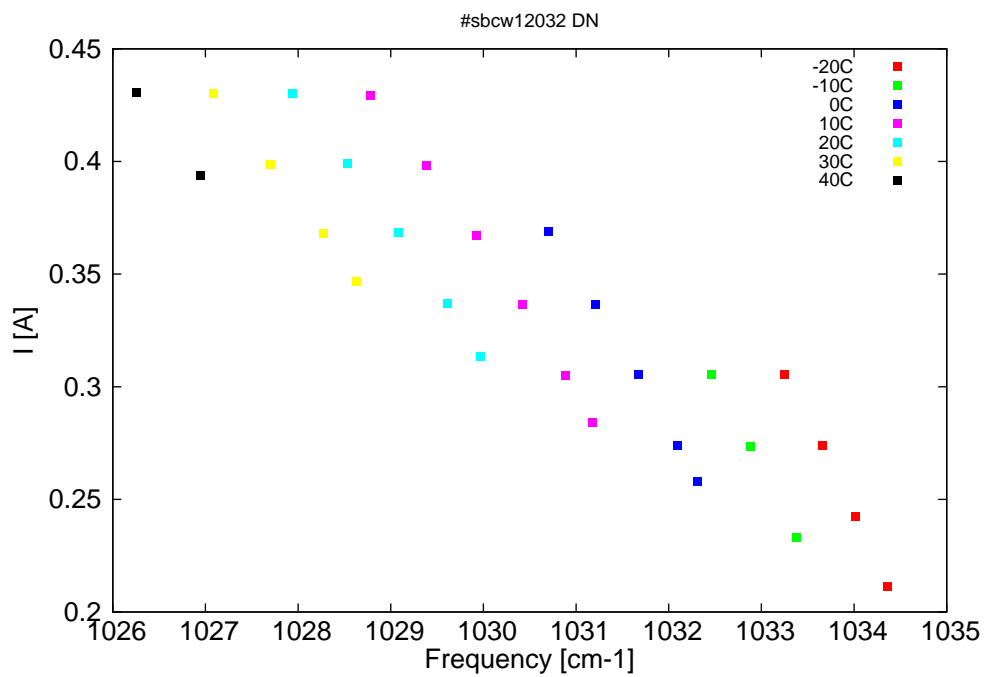


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9667.8	1034.4	0	-20	9.5	0.21
9671	1034	2.3	-20	10	0.24
9674.4	1033.7	4.6	-20	10.4	0.27
9678.2	1033.2	6.1	-20	10.8	0.31
9677	1033.4	0.1	-10	9.7	0.23
9681.7	1032.9	2.8	-10	10.3	0.27
9685.6	1032.5	4.6	-10	10.7	0.31
9687	1032.3	0.2	0	10	0.26
9689	1032.1	1.1	0	10.2	0.27
9693	1031.7	2.9	0	10.6	0.31
9697.3	1031.2	4.2	0	11	0.34
9702.1	1030.7	5	0	11.4	0.37
9697.6	1031.2	0.2	10	10.2	0.28
9700.4	1030.9	1.3	10	10.5	0.31
9704.8	1030.4	2.8	10	10.9	0.34
9709.5	1029.9	3.8	10	11.3	0.37
9714.5	1029.4	4.5	10	11.7	0.4
9720.2	1028.8	4.9	10	12.2	0.43
9709	1030	0.2	20	10.5	0.31
9712.4	1029.6	1.2	20	10.8	0.34
9717.3	1029.1	2.4	20	11.2	0.37
9722.5	1028.5	3.4	20	11.6	0.4
9728.2	1027.9	4.1	20	12.1	0.43
9721.7	1028.6	0.1	30	10.8	0.35
9725	1028.3	0.9	30	11.1	0.37
9730.5	1027.7	2	30	11.5	0.4
9736.3	1027.1	2.8	30	12	0.43
9737.6	1027	0.1	40	11.4	0.39
9744.2	1026.3	0.9	40	11.8	0.43

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

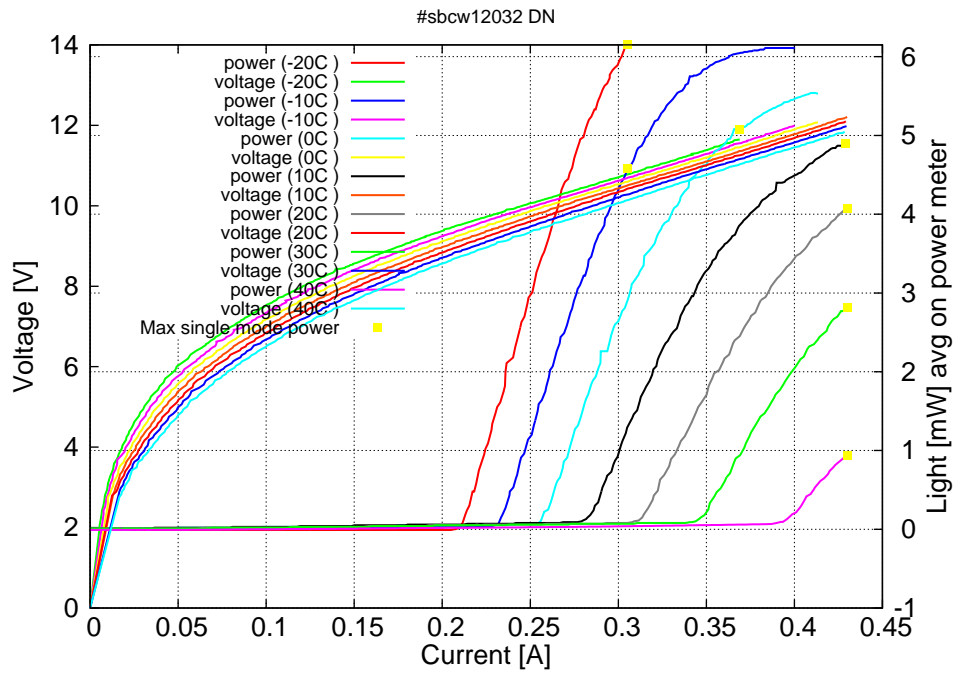


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.21A$ / $V_{th}=9.5V$ (2-wires measurements). Maximum operation current: 0.32A between -20C and -10C, 0.37A at 0C, 0.43A between 10C and 40C.

Figure 3: spectra at different temperatures for various DC currents

