

## BWC-SLD (SLED) Series Super Luminescent Diode Light Source

### Description

The BWC-SLD series provides a stable source of light over a wide wavelength range. Available wavelength bands are from 670 - 1650 nm. The BWC-SLD comes complete with high precision controller for the high output level and stability of the super luminescent diodes.



### Applications

- Passive WDM component Testing
- Sensor Instrumentation
- Optical Coherence Tomography
- Near-Infrared Spectroscopy

### Key Features

- One Source for all: S+C+L bands or custom
- Highly stable optical output power
- Available in 1,2 or multiple channel configurations
- Various fiber optic connector options
- Best performance to cost ratio

# BWC - SLD

## Typical Specifications

### Optical

	SLD1	SLD1A	SLD1B	SLD1C	SLD1D
Peak Wavelength (nm)	1310+/-20	1310+/-20	1310+/-20	1310+/-20	1310+/-20
Power (mW) in SMF	5	0.5	5	5	5-7
FWHM Bandwidth (nm)	35-45	60	55	90-100	>100
10dB Bandwidth (nm)	60+/-10	NA	NA	NA	NA

	SLD2	SLD4	SLD5	SLD7
Peak Wavelength (nm)	1400+/-20	1550+/-20	1300,1400+/-20	1480+/-20
Power (mW) in SMF	5	5	4	5
FWHM Bandwidth (nm)	30-40	25-40	NA	35-55
10dB Bandwidth (nm)	60+/-10	60+/-10	140+/-20	80+/-10

	SLD8	SLD9	SLD9A
Peak Wavelength (nm)	1620+/-20	1480, 1550, 1620 +/- 20	1480, 1530, 1565 +/- 20
Power (mW) in SMF	5	5	5
FWHM Bandwidth (nm)	35-55	NA	NA
10dB Bandwidth (nm)	80+/-15	200+/-20	170+/-20

	SLD10	SLD11	SLD11A	SLD12
Peak Wavelength (nm)	1550, 1620 +/-20	830+/-30	830+/-30	980 +/-20
Power (mW) in SMF	5	7	2	8
FWHM Bandwidth (nm)	NA	15-35	20	20-40
10dB Bandwidth (nm)	140+/-20	40+/-10	NA	50+/-10

	SLD13	SLD14	SLD15	SLD16
Peak Wavelength (nm)	1300, 1400, 1550+/- 20	1557+/-10	1300,1400,1480, 1550, 1620 +/-20	1480, 1550 +/-20
Power (mW) in SMF	4	50	4	5
FWHM Bandwidth (nm)	NA	20+/-5	NA	NA
10dB Bandwidth (nm)	NA	40+/-10	NA	NA

	SLD17	SLD18A	SLD19
Peak Wavelength (nm)	1300, 1480, 1550, 1620 +/- 20	2150+/-50	680 +/-20
Power (mW) in SMF	4	1	3
FWHM Bandwidth (nm)	NA	50	5
10dB Bandwidth (nm)	NA	NA	NA

# BWC - SLD

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Power Stability <sup>1), 2)</sup>	+/-0.02dB(over 8mins), +/- 0.1 dB (over 8hrs)
Fiber Type	SM Fiber
Output Port	FC/APC

1) Measurement after 1 hr stabilization at 23+/-0.5 °C ambient

2) The optical spectrum of SLD in the 1400nm wavelength region is characterized by many deep and narrow notches, when measured with a standard optical spectrum analyzers(OSA) at high resolution. This is due to the absorption lines of OH molecules that exist in the pathway from the fiber output of the SLD to the detector of the OSA. These lines can be eliminated by filling the OSA with gases such as N2 to remove the OH molecules.

## Electrical

Input Power	100-240 VAC @ 1Amp
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## Mechanical

Physical Dimensions	155mm (w) x 89mm (h) x 255mm (d) or 250mm (w) x 120mm (h) x 320mm (d)
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Cooling	Internal Thermal Electric Cooler
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Weight	3 - 8 lbs
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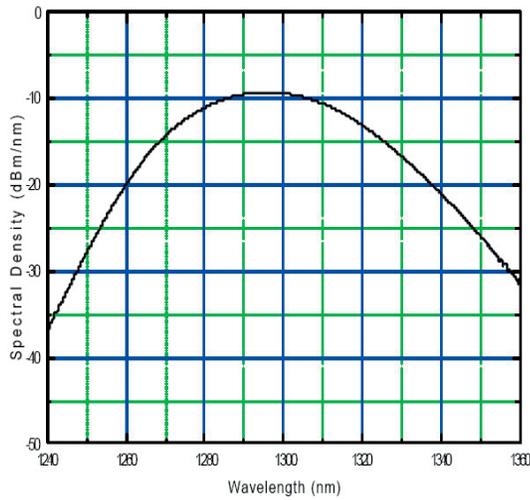
## Environmental

Ambient Temperature	10 to 35°C
Storage Temperature	-10 to 50°C
Humidity	5-95%, non-condensing

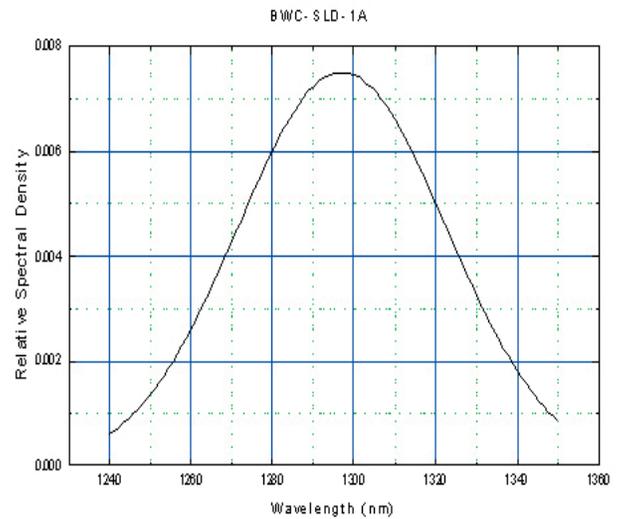
*Higher power and custom options are available. Contact B&W TEK, Inc. for details.*

# BWC - SLD

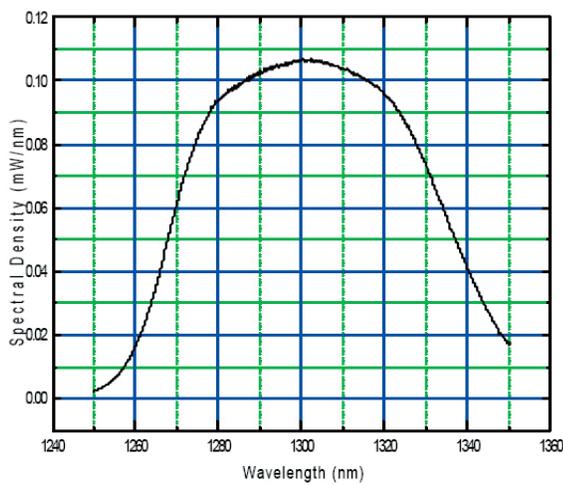
## Typical Spectral emission curves



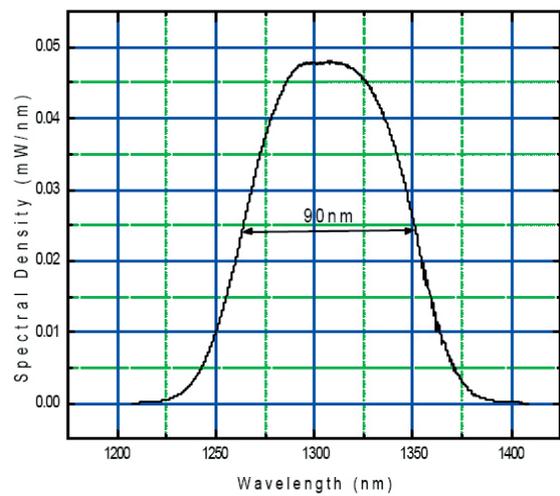
SLD1



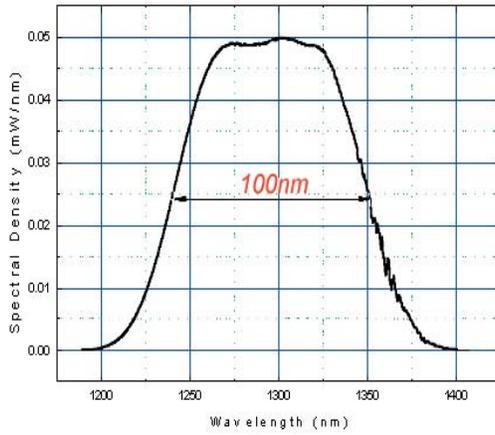
SLD1A



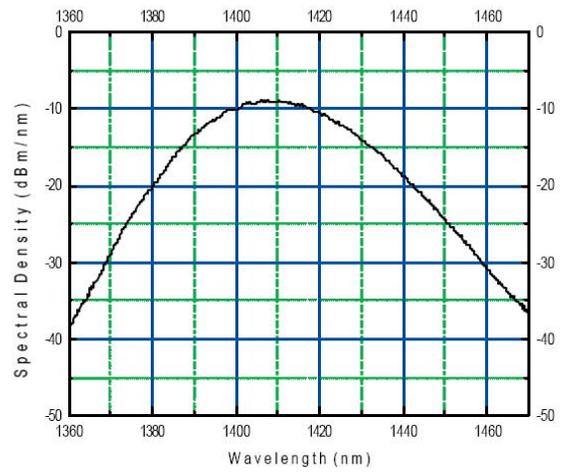
SLD1B



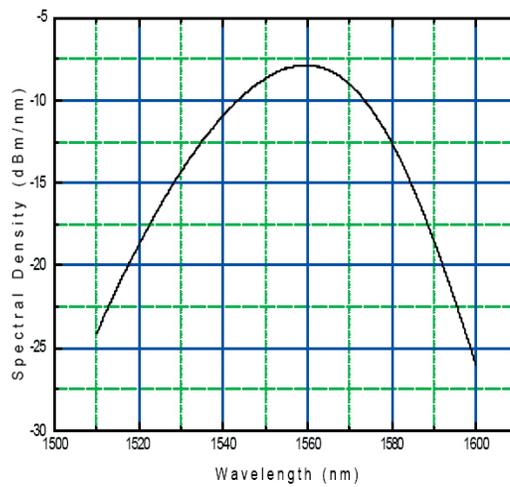
SLD1C



SLD1D



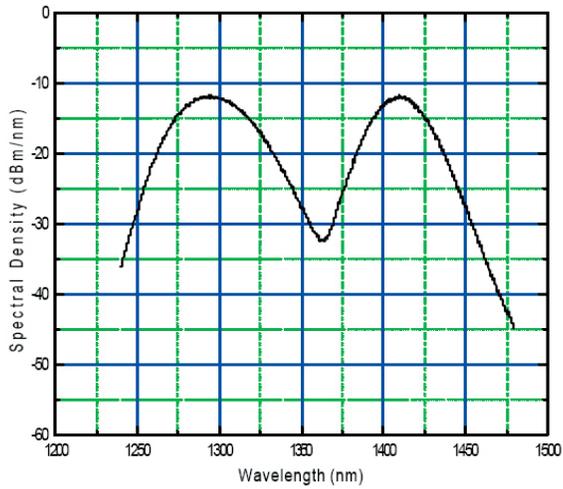
SLD2



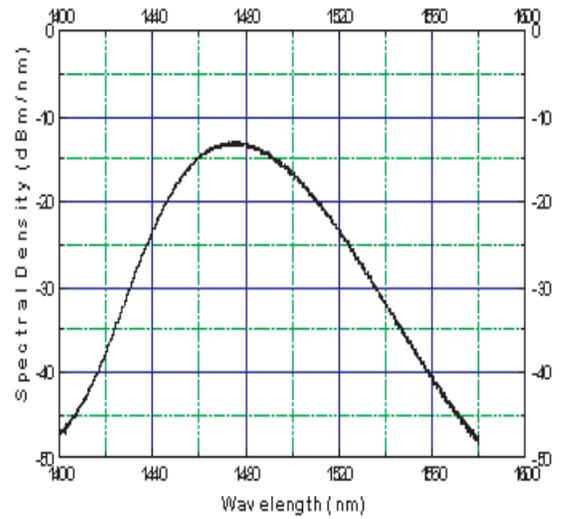
SLD4

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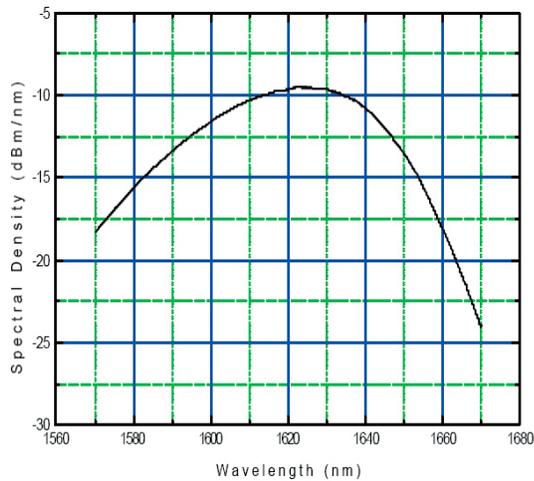
Typical Spectral emission curves (Cont.)



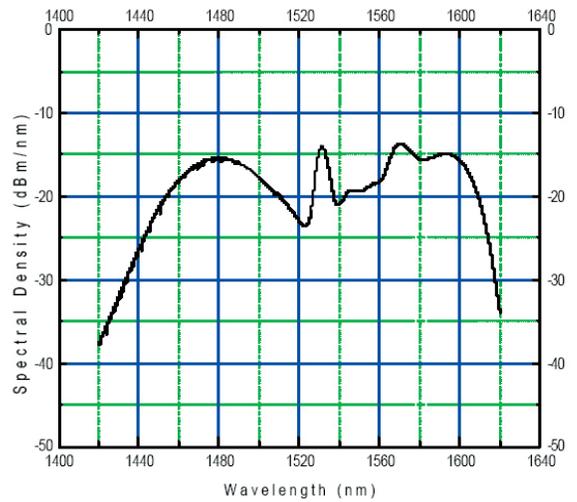
SLD5



SLD7

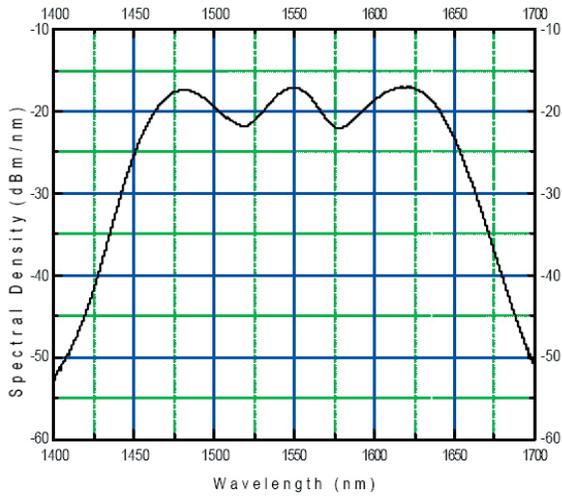


SLD8

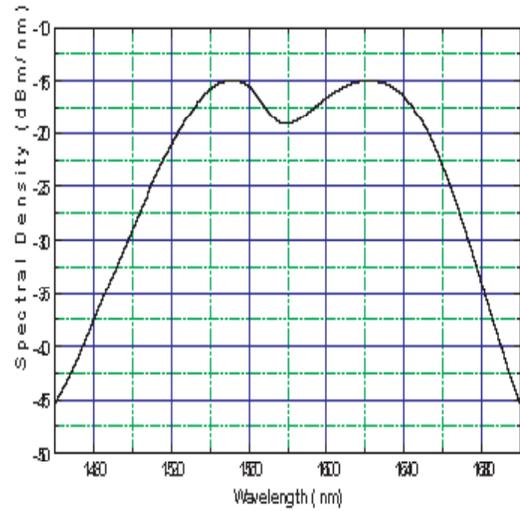


SLD9A

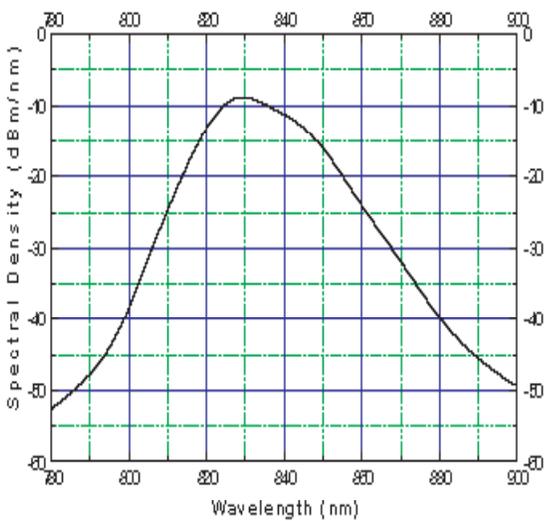
## Typical Spectral emission curves (Cont.)



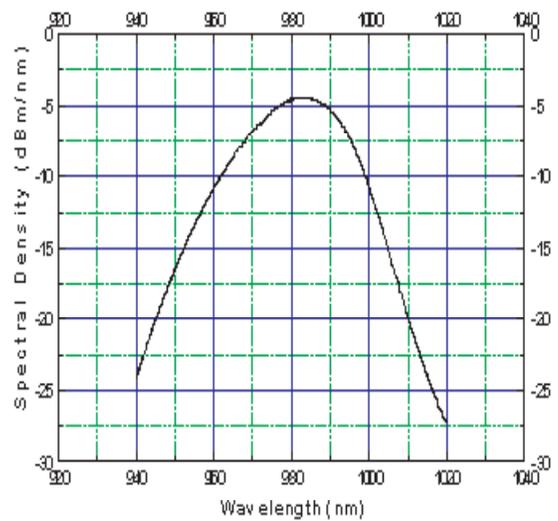
SLD9



SLD10



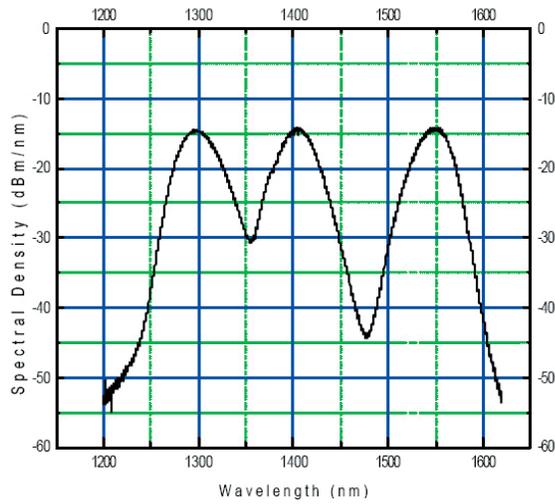
SLD11



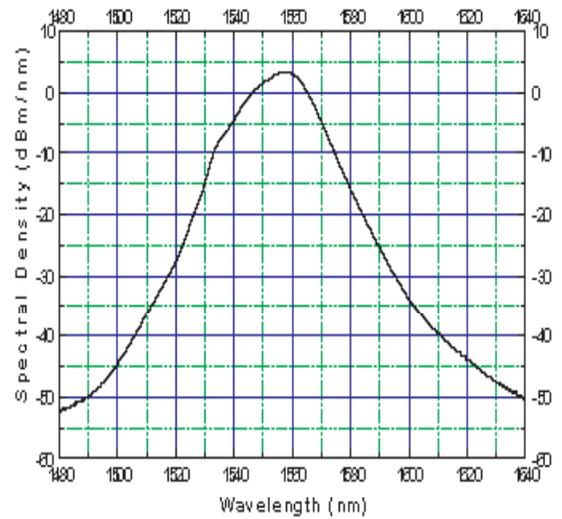
SLD12

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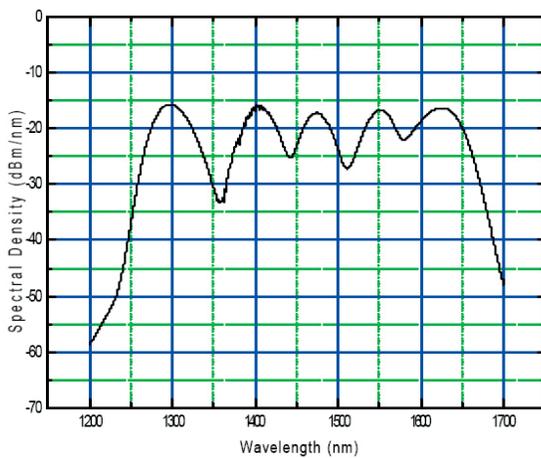
Typical Spectral emission curves (Cont.)



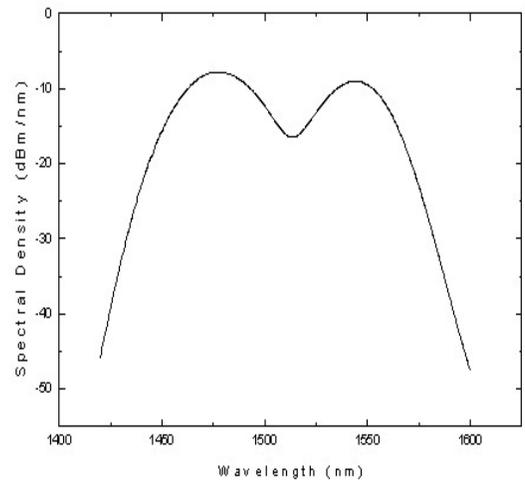
SLD13



SLD14

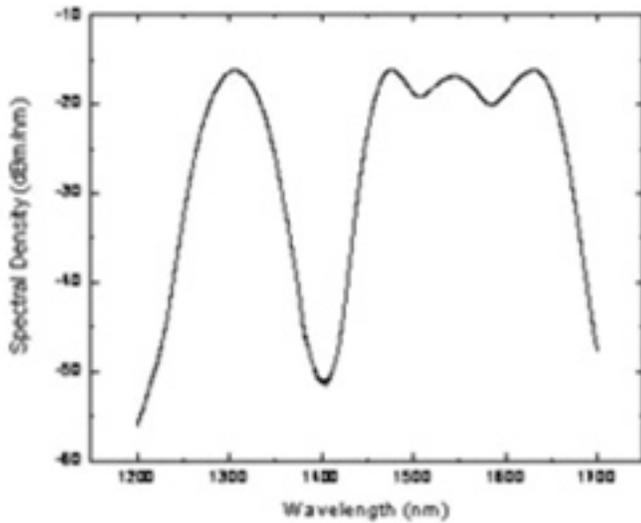


SLD15

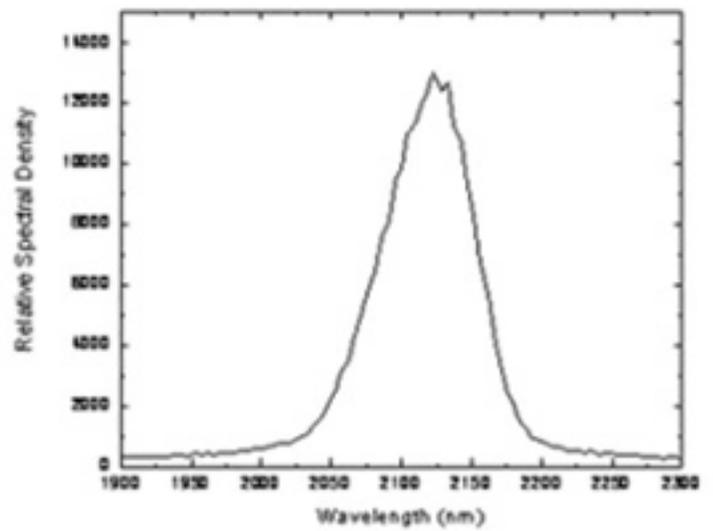


SLD16

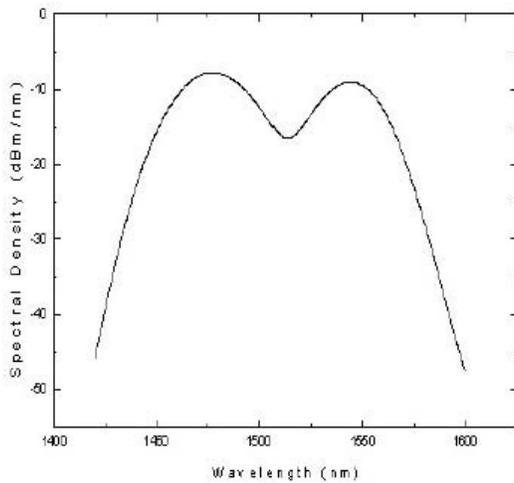
Typical Spectral emission curves (Cont.)



SLD17



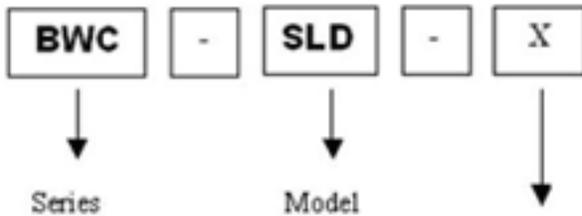
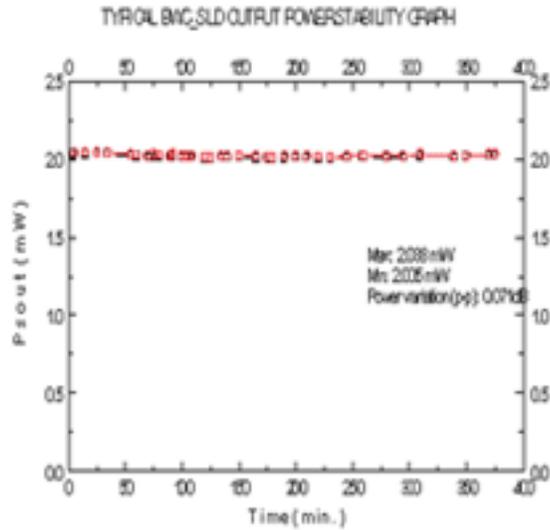
SLD-18A



SLD19

# BWC - SLD

## Typical Output Power Stability Data



- |      |                                 |
|------|---------------------------------|
| 1.   | 1310nm                          |
| 1A.  | 1310nm                          |
| 1B.  | 1310nm                          |
| 1C.  | 1310nm                          |
| 1D.  | 1310nm                          |
| 2.   | 1400nm                          |
| 4.   | 1550nm                          |
| 5.   | 1300, 1400nm                    |
| 6.   | 680nm                           |
| 7.   | 1480nm                          |
| 8.   | 1620nm                          |
| 9.   | 1480, 1550, 1620nm (S+C+L band) |
| 9A.  | 1480, 1530, 1565nm (S+C+L band) |
| 10.  | 1550, 1620nm (C+L Band)         |
| 11.  | 830nm                           |
| 11A. | 830nm                           |
| 12.  | 980nm                           |
| 13.  | 1300, 1400, 1550nm (Broadband)  |
| 14.  | 1557nm (Highpower)              |
| 15.  | 1300,1400, 1480, 1550, 1620nm   |
| 16.  | 1480, 1550nm (S+C band)         |
| 17.  | 1300, 1480, 1550, 1620 +/- 20nm |
| 18.  | 2125 +/- 50nm                   |
| 19.  | 680 +/- 20 mn                   |