SDL 810/830/852nm Laser Diodes

SDL-5400 Series Single-mode Laser Diodes 810/830/852nm

Available in power levels up to 200 mW kink-free, this SDL advanced laser diode combines a quantum well structure and a real-refractive index-guided single-mode waveguide to provide high power, low astigmatism, narrow spectral width, and a single spatial mode Gaussian far field. SDL-5400 series laser diodes are among the most reliable high-power laser diodes available in the industry today.

The SDL-5400 series laser diodes operate in single longitudinal mode under some conditions. Like in all Fabry-Perot index-guided laser diodes, spectral broadening, mode hopping, and longitudinal mode instability may occur due to small changes in drive current, diode junction temperature, or optical feedback.

The unique diode structure features high reliability with long operating life, and very low early failure rate. Very high brightness (20 MW/cm^2 steradian) is provided by the SDL-5430.

List of SDL Laser Diodes available

Wavelength	Output Power	Package Type	MPD	MPD+TEC	Part Number
810nm ± 4nm	50mW	9mm window (3-pin)	✓		SDL-5401-G1
810nm ± 10nm	50mW	9mm window (3-pin)	✓		SDL-5401-G1
830nm ± 10nm	50mW	9mm window (3-pin)	✓		SDL-5401-G1
852nm ± 4nm	50mW	9mm window (3-pin)	✓		SDL-5401-G1
810nm ± 4nm	50mW	TO-3 window (8-pin)		✓	SDL-5402-H1
830nm ± 10nm	50mW	TO-3 window (8-pin)		✓	SDL-5402-H1
852nm ± 4nm	50mW	TO-3 window (8-pin)		✓	SDL-5402-H1
810nm ± 4nm	100mW	9mm window (3-pin)	✓		SDL-5411-G1
810nm ± 10nm	100mW	9mm window (3-pin)	✓		SDL-5411-G1
830nm ± 10nm	100mW	9mm window (3-pin)	✓		SDL-5411-G1
852nm ± 4nm	100mW	9mm window (3-pin)	✓		SDL-5411-G1
810nm ± 4nm	100mW	TO-3 window (8-pin)		✓	SDL-5412-H1
830nm ± 10nm	100mW	TO-3 window (8-pin)		✓	SDL-5412-H1
852nm ± 4nm	100mW	TO-3 window (8-pin)		✓	SDL-5412-H1
810nm ± 4nm	150mW	9mm window (3-pin)	✓		SDL-5421-G1
810nm ± 10nm	150mW	9mm window (3-pin)	✓		SDL-5421-G1
830nm ± 10nm	150mW	9mm window (3-pin)	✓		SDL-5421-G1
852nm ± 4nm	150mW	9mm window (3-pin)	✓		SDL-5421-G1
810nm ± 4nm	150mW	TO-3 window (8-pin)		✓	SDL-5422-H1
830nm ± 10nm	150mW	TO-3 window (8-pin)		✓	SDL-5422-H1
852nm ± 4nm	150mW	TO-3 window (8-pin)		✓	SDL-5422-H1
830nm ± 10nm	200mW	9mm window (3-pin)	✓		SDL-5431-G1
830nm ± 10nm	200mW	TO-3 window (8-pin)		✓	SDL-5432-H1

MPD = Internal Monitor Photo Diode, TEC = Thermo Electric Cooler
All lasers carry a warranty period of 90 days.

Related Recommended Products

➢ Heatsinks

- **SDL-800-G (heatsink base with cable assembly for G-type package)**
- **SDL-800-H (heatsink base with cable assembly for H-type package)**

➢ Laser Driver

- **SDL-800 (0-1A)**

  The SDL-800 laser diode driver (Laser Drive Inc) is a general-purpose driver suitable for any CW laser diode. Designed specifically for safe, and fault-free operation of laser diodes, the SDL-800 includes transient suppression, and diode protective circuits, a feedback amplifier, set-up mode with a dummy load, overcurrent limit, and full TE cooler control.

  The driver provides 3-1/2 digit displays of six key operating functions. The thermoelectric cooler controller operates the TEC option.

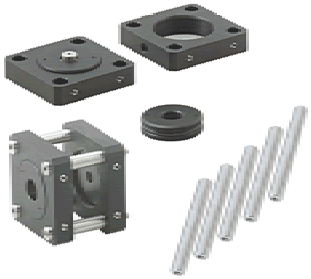
➢ TO-3 Collimation Package

Ideal for collimating high power laser diodes,
The TO3 collimation package can be used one of the two ways:

(1) If the laser output is low, and no heat sinking is required, the laser can be mounted directly to the package.

(2) For higher power lasers or in applications where better temperature regulation is required, the collimation package can be mounted directly onto any heatsink that is designed to accept TO-3 laser package.

Laser, and lens not included.



Caution!
Operating the Laser Diodes at their maximum capacity, and without any proper heat sinking will affect the long-term reliability, and life of the Laser Diodes.

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