

Laser Diodes

Sanyo, and Sony — 635 nm to 830 nm, 5mW to 150mW

Laser diodes continue to find new product applications as the lasing wavelength is pushed lower into the visible spectrum. The latest generation of Visible Laser Diodes (VLD's) operate at or near 635nm; this wavelength being equivalent to a helium neon gas laser, is highly visible to the human eye. VLD's in the range from 635nm to 685nm are replacing the traditional HeNe laser in many commercial products for good reasons: lower cost, compact size, and superior long-term reliability. Another intrinsic benefit, laser diodes are generally better suited for battery operated devices and other low voltage applications. Please refer to the Optima website for additional information, specifications and current pricing — <http://www.optima-optics.com>

Sanyo visible and Near-Infrared Laser Diode Specifications:

PART NUMBER	PRICE	WAVE LENGTH (nm)	* MAX LASER POWER (mW)	MODE	THRESHOLD CURRENT TYP (mA)	OPERATING CURRENT TYP (mA)	PARALLEL DIVERGENCE FWHM (deg)	PERPENDICULAR DIVERGENCE FWHM (deg)	PIN REF	BASE DIMENSION (mm)
DL 3148-037	\$25.30	635	7	S	20	30	8	30	C	Ø5.6
DL 3038-033	\$36.30	635	5	S	30	40	8	35	C	Ø9.0
DL 4038-031	\$75.20	635	10	S	35	55	8	30	C	Ø9.0
DL 4038-025	\$292.00	635	20	S	45	80	7	25	C	Ø9.0
DL 3147-041	\$17.40	645	5	S	45	60	7.5	30	C	Ø5.6
DL 3147-060	\$16.80	650	7	S	20	30	8	30	C	Ø5.6
DL 3149-057	\$15.10	670	7	S	25	40	8	30	C	Ø5.6
DL 7140-201S	\$47.30	785	80	S	30	100	8	17	D	Ø5.6
DL 8032-001	\$376.00	830	150	S	40	185	7	18	C	Ø9.0

*MAX LASER POWER (mW) = Absolute Maximum Rating as listed on the laser diode data sheet.

All of the diodes listed above are Single Mode.

Sony Visible Laser Diode Specifications:

PART NUMBER	PRICE	WAVE LENGTH (nm)	MAX LASER POWER (mW)	MODE	THRESHOLD CURRENT TYP (mA)	OPERATING CURRENT TYP (mA)	PARALLEL DIVERGENCE FWHM (deg)	PERPENDICULAR DIVERGENCE FWHM (deg)	PIN REF	BASE DIMENSION (mm)
SLD 1132 VS	\$30.10	635	5	S	50	60	7	32	A	Ø5.6
SLD 1134 VL	\$17.00	655	5	S	65	75	8.5	35	F	Ø5.6

Schematic Diagram of Laser Diode / Photodiode — Internal Circuit Connections:

