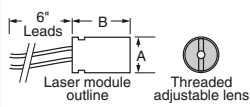




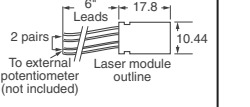
Adjustable Focus Laser Diode Modules

Fig. 1 — Adjustable Focus Laser Module 28 AWG



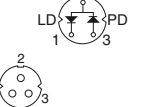
	10.4mm	6.4mm
Po:	5mW	
Class:	IIIa	
Supply Voltage, Up to 9V:	3 Continuous	
Dimension A:	10.44mm	6.4mm
Dimension B:	17.8mm	17.25mm

Fig. 2 — Adjustable Output Laser Module



Po: 1 - 4.8mW
Recommended Pot = approx. 150K - 500K

Fig. 3 — Visible Laser Diode



- Laser cathode
- Common case(laser anode)
- PD anode (standard pinout)

Po: 5mW Class IIIa Wide Spectrum Range, Standard Pinout

Fig. 4 — 6.4mm Laser Diode Housing Kit

Includes: Backcap, barrel, lens housing and lens

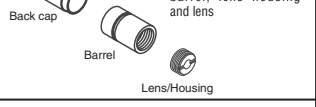


Fig. 5 — 10.4mm Laser Diode Housing Kit

Includes: Housing/Heatsink, 5.6mm - 9mm Adapter, Adjustable Focus Lens


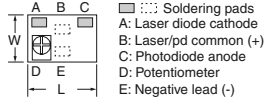


Fig. 6 — APC Laser Power Supply




	Dimensions	
	W	L
10.4mm	5.4	7.8
6.4mm	9.0	5.0

Adjustable Output Power via On-Board Potentiometer

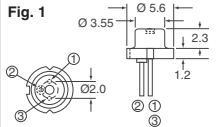
Fig.	Description	Wave-length (nm)	lop (mA)	Size (mm)	Digi-Key Part No.	Price Each	U.S. Lasers Part No.
1	Visible Laser Module*	650	25 - 40	17.8 x 10.44	38-1003-ND	32.66	M65051
		635	45 - 70	17.8 x 10.44	38-1017-ND	76.00	M63551
1	Infrared Laser Module*	780	45 - 70	17.8 x 10.44	38-1018-ND	56.00	M78051
		808	60 - 70	17.8 x 10.44	38-1005-ND	64.00	M80851
		850	45 - 65	17.8 x 10.44	38-1019-ND	68.00	M85051
1	Visible Laser Micro Module*	650	25 - 40	17.25 x 6.4	38-1021-ND	52.00	MM65051
		640	55 - 70	17.25 x 6.4	38-1022-ND	92.00	MM64051
		635	45 - 70	17.25 x 6.4	38-1023-ND	96.00	MM63551
		780	45 - 70	17.25 x 6.4	38-1024-ND	76.00	MM78051
1	Infrared Laser Micro Module*	808	60 - 70	17.25 x 6.4	38-1025-ND	80.00	MM80851
		850	45 - 65	17.25 x 6.4	38-1026-ND	88.00	MM85051
		650	25 - 40	17.8 x 10.44	38-1011-ND	56.00	VOL65051
2	Adj. Output Visible Laser Module*	650	25 - 40	17.8 x 10.44	38-1011-ND	56.00	VOL65051
		635	45 - 70	17.8 x 10.44	38-1013-ND	116.00	VOL63551

Fig.	Description	Wave-length (nm)	lop (mA)	Size (mm)	Digi-Key Part No.	Price Each	U.S. Lasers Part No.
2	Adj. Output Infrared Laser Module*	780	45 - 70	17.8 x 10.44	38-1014-ND	96.00	VOL78051
		808	60 - 70	17.8 x 10.44	38-1015-ND	100.00	VOL80851
		850	45 - 65	17.8 x 10.44	38-1016-ND	108.00	VOL85051
3	Visible Laser Diode	650	25 - 40	5.6	38-1007-ND	9.00	D65051
		635	45 - 70	5.6	38-1007-ND	30.00	D63551
3	Infrared Laser Diode	780	45 - 70	5.6	38-1028-ND	24.00	D78051
		808	60 - 70	5.6	38-1029-ND	28.00	D80851
		850	45 - 65	5.6	38-1030-ND	32.00	D85051
4	Housing Kit, 6.4mm			17.25 x 6.4	38-1032-ND	20.00	HK-6.4
				17.8 x 10.44	38-1027-ND	18.00	HK-10.4
5	Laser Driver Circuit (APC) for 10.4mm Housing			5.4 x 7.8	38-1009-ND†	14.00	NS102-200K
				5.0 x 9.0	38-1031-ND†	14.00	NS102A-200K
6	Laser Driver Circuit (APC) for 6.4mm Housing			5.6mm - 9mm Adapter, Non-threaded	38-1033-ND	4.00	AD 5.6-9MM
				5.6mm - 9mm Adapter, Threaded	38-1001-ND	5.00	THAD 5.6-9mm

* Module denotes complete assembly † For use with 660, 650, 640 and 635nm diodes only

SHARP MICROELECTRONICS OF THE AMERICAS 


Laser Diodes

Fig. 1 

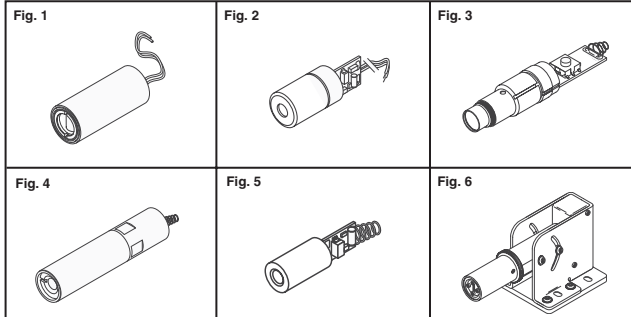
A Dual Power Supply **B** Laser Diode **C** Monitor Photodiode


Fig.	Optical Power Output	Oper. Current (Typ.)	Oper. Volt. (Typ.)	Wave-length (Typ.)	Half Intensity Typ.†	Oper. Temp. °C	Digi-Key Part No.	Price Each	10
1A	10mW	40mA	2.2	654nm	8.5° 29°	-10 - 70	425-1806-ND	14.79	12.68
1B	50mW	80mA	2.8	654nm	8.5° 21°	-5 - 70	425-1807-ND	74.03	63.45
1C	105mW	120mA	2.8	406nm	9.0° 19°	-10 - 70	425-2697-ND	1125.00/1	

† Angle at 50% peak intensity (full-width at half-maximum). Parallel to the junction plane (X-Z plane) Perpendicular to the junction plane (Y-Z plane)

Quarton 

Visible Laser Diode Modules



LUMEX 

Visible and Infrared Diodes

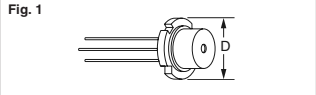
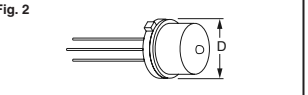
Fig. 1 

Fig. 2 

Wave-length Typ. (nm)	Output Power (mW) max.	Current Ith (mA)	Oper. Voltage (V)	Operating Temp. (°C)	Dia. D (mm)	Digi-Key Part No.	Price Each	Lumex Part No.
Fig. 1 — Visible Laser Diodes — RoHS Compliant								
650	5	20	35	2.2	-10 - 40	67-1500-ND	5.37	OED-LDP65001E

Detection Range λ (nm)	Rise/Fall Time (ns)	Forward Current (mA)	Reverse Voltage (V)	Operating Temp. (°C)	Diameter D (mm)	Digi-Key Part No.	Price Each	Lumex Part No.
Fig. 2 — Pin Photo Diode								
1100/1600	0.3	2	25	-40 - 85	5.35	67-1505-ND	35.26	OED-PPD11075G-B

Fig.	Emission Wavelength Typ. (nm)	Cw Output Power (mW)	Operating Current (mA)	Digi-Key Part No.	Price Each	1	10	100
1	650	≤3	40±15	VLM-650-01-LPA-ND	15.88	14.30	13.35	
	635	≤3	40±15	VLM-635-01-LPA-ND	32.92	29.63	27.65	
	650	≤2.5	40±15	VLM-650-03-LPA-ND	9.35	8.42	7.86	
	650	≤3	40±15	VLM-650-27-LPA-ND	41.07	36.96	34.50	
	635	≤3	40±15	VLM-635-27-LPA-ND	48.32	43.49	40.59	
	650	≤2.5	40±15	VLM-650-03-LPT-ND	9.35	8.42	7.86	
2	650	≤3	40±15	VLM-650-02-LPA-ND	16.43	14.79	13.81	
	635	≤3	40±15	VLM-635-02-LPA-ND	42.17	37.95	35.42	
	635	≤2.5	40±15	VLM-635-04-LPA-ND	22.55	20.30	18.95	
3	650	≤2.5	40±15	VLM-650-04-LPA-ND	9.48	8.54	7.97	
	532	≤5	270 - 350	VLM-532-42-SCA-ND	107.82	97.04	90.57	
4	532	≤5	270 - 350	VLM-532-43-SCA-ND	155.73	140.16	130.82	
	532	≤10	270 - 350	VLM-532-43-SCB-ND	227.60	204.84	191.19	
5	650	≤2.5	40±15	VLM-650-04-SPA-ND	10.08	9.08	8.47	
6	635	≤1	40±5	T155-27001-ND	95.83	86.25	80.50	

Panasonic® Aspherical Glass Lenses



Wave Length (nm)	Numerical Aperture	Focal Length (mm)	Working Distance (mm)	Lens Diameter (mm)	Mass (Weight) (mg)	Abbe Number	Cover Glass (mm)	Digi-Key Part No	Pkg.	Price Per Package	Panasonic Part No.
650	0.60	2.33	1.27	3.80	20.3	58	0.6	P13565-ND P13566-ND	5 pc. 110 pc.	132.00 2541.00	EYL-GUDM128E EYL-GUDM128

Lightweight, high-performance aspherical glass lenses for various optical electronics applications.

Applications: • Pickup lens for optical drive devices • Collimator lens for laser beam printers • Coupling lens for optical communication systems • Image formation lens for sensors • Imaging device for CCD, CMOS

Features: • "One Shot" precision manufacturing process for an extremely compact, lightweight and high performance lens • High-quality processing and measurement techniques for superior performance • Short focal length for compact size • High numerical aperture achieved via aspherical design • Wide temperature and humidity range for increased reliability and stability • Various lenses and lens material available for many different applications

Specifications: • Operating Temperature Range: -30°C - 85°C

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