



Adjustable Focus Laser Diode Modules

Fig. 1 — Adjustable Focus Laser Module 28 AWG

Po:	10.4mm	6.4mm
Class:	5mW 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

1. Laser cathode
2. Common case (laser anode)
3. PD anode (standard pinout)

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

Fig. 4 — 6.4mm Laser Diode Housing Kit

Includes: Back cap, 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)	Iop (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
		860	25 - 40	17.8 x 10.44	38-1011-ND	56.00	VOL65051
2	Adj. Output Visible Laser Module*	850	45 - 70	17.8 x 10.44	38-1013-ND	116.00	VOL63551

Fig.	Description	Wave-length (nm)	Iop (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	38-1008-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 Laser Diodes

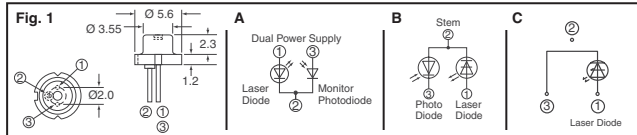
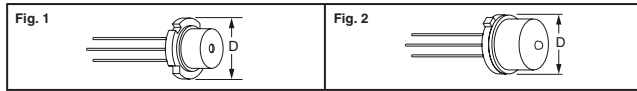


Fig.	Optical Power Output	Oper. Current (Typ.)	Oper. Volt. (Typ.)	Wave-length (Typ.)	Half Intensity Typ.†	Oper. Temp. °C	Digi-Key Part No.	Price Each
1A	10mW	40mA	2.2	654nm	8.5° 29°	-10 - 70	425-1806-ND	14.79 12.68
1B	50mW	80mA	2.8	654nm	8.5° 21°	-5 - 70	425-1807-ND	74.03 63.45
1C	105mW	120mA	2.8	406nm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

LUMEX Visible and Infrared Diodes



Wave-length λ Typ. (nm)	Output Power (mW) max.	Current Ith Iop (mA)	Oper. Voltage (V)	Operating Temp. (°C)	Dia. D (mm)	Digi-Key Part No.	Price Each	Lumex Part No.
Fig. 1 — Visible Laser Diodes								
650	5	20 35	2.2	-10 - 40	5.60	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

• RoHS Compliant

Quarton Visible Laser Diode Modules

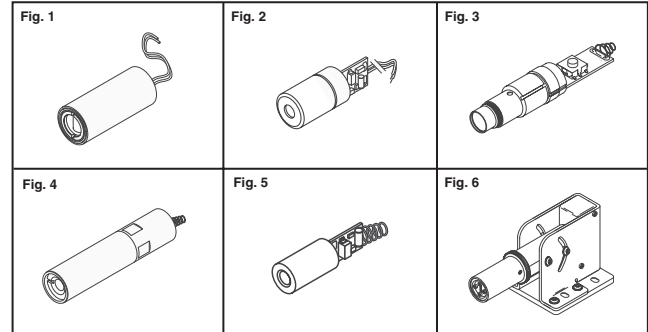


Fig.	Emission Wavelength Typ. (nm)	Cw Output Power (mW)	Operating Current (mA)	Digi-Key Part No.	Price Each
1	650	≤3	40±15	VLM-650-01-LPA-ND	15.88 14.30 13.35
	635	≤3	40±15	VLM-635-01-LPA-ND	32.92 29.63 27.65
	650	≤2.5	40±15	VLM-650-03-LPA-ND	9.35 8.42 7.86
	650	≤3	40±15	VLM-650-27-LPA-ND	41.07 36.96 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	532	≤5	270 - 350	VLM-532-42-SCA-ND	107.82 97.04 90.57
	532	≤5	270 - 350	VLM-532-43-SCA-ND	155.73 140.16 130.82
4	532	≤10	270 - 350	VLM-532-43-SCB-ND	227.60 204.84 191.19
	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

More Product Available Online: www.digkey.com