

NEC**Fiber Optic Devices****OD-8324-□□ LD Module**

OD-8324 is designed to couple LD (Laser Diode) output light efficiently to optical fiber.

PIN photodiode is installed in OD-8324 for APC (Automatic Power Control) and monitoring the modulated waveform.

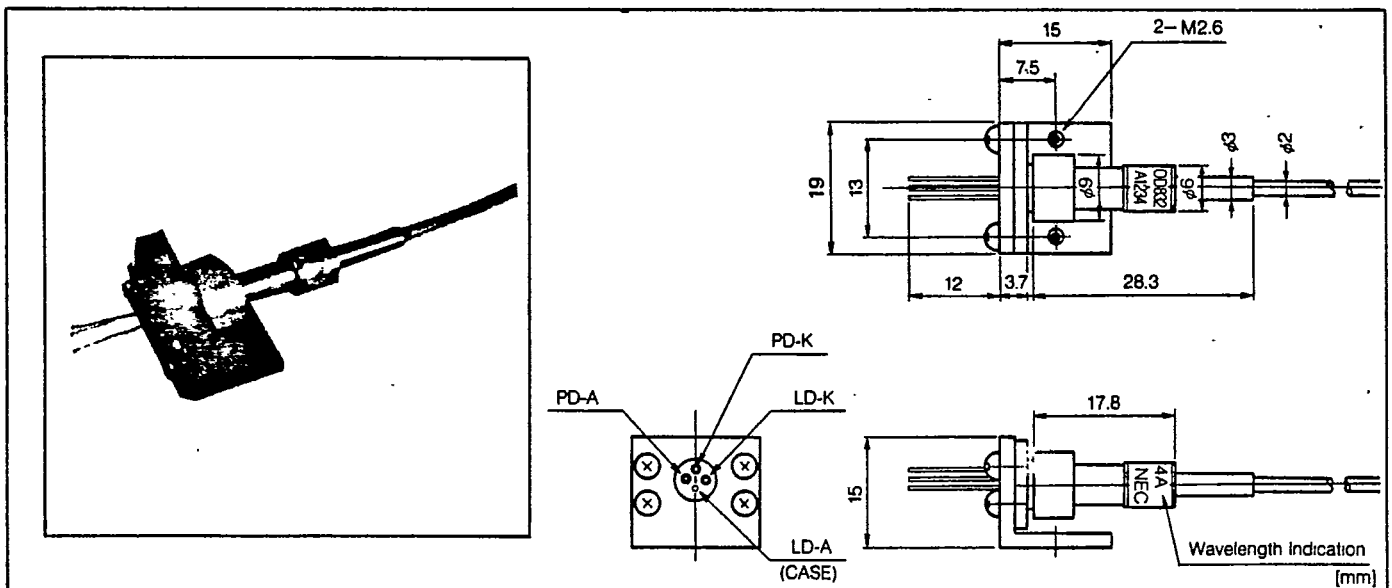
OD-8324 is especially suitable for installation in optical repeaters.

FEATURES

- LD package with internal PIN detector.
- High coupling efficiency from LD to optical fiber.
- High speed and high output power LD is mounted.
- Highly reliable construction.
- Compact and easily installed in various systems.
- Electrodes are insulated from module case.
- Near end reflection rejected.
- Flexible for connector termination.

APPLICATIONS

- Light source for fiber optics communication systems.
- Light source for optical fiber and optical devices measuring sets.

**ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)**

PARAMETERS	SYMBOL	RATING	UNIT
Reverse Voltage	V _R	2	V
Forward Current	I _F	150	mA
Fiber Coupled Power	P _F	2	mW
Forward Current (Monitor diode)	I _F	100	mA
Reverse Voltage (Monitor diode)	V _R	100	V
Operating Case Temperature	T _{op}	-10 ~ 60	°C
Storage Temperature	T _{stg}	-40 ~ 80	°C
Soldering Temperature (5 sec.)		230	°C

PERFORMANCE SPECIFICATIONS (Ta = 25°C)

SYMBOL	PARAMETERS	CONDITIONS	OD-8324			UNIT
			MIN	TYP	MAX	
Pf	Fiber Coupled Power				1.6*	mW
Ith	Threshold Current			70	100	mA
$\Delta I_{th}/\Delta T_a$	Temperature Dependence of Ith			0.5		mA/°C
λ_0	Center Wavelength	Pf = 1.6mW	**			nm
$\Delta\lambda$	Spectrum Width	(Pf = 1.6mW)		1	2	nm
/ Ta	Temperature Dependence of λ_0			0.3		nm/°C
Vf	Forward Voltage	Pf = 1.6mW		1.9	2.5	V
tr/tf	Rise/Fall Time	10 ~ 90%		0.5		n sec
I _{mon}	Monitor Photo Current			250		µA

* Light output power over 1.6mW is available (LD life time will be shortened). LD life time is 400,000 hours (MTTF) if light output power is limited within 1.6mW.

**Wavelength

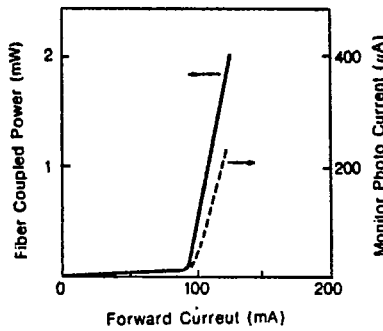
Type	A	S	Q
Wavelength (nm)	830~870	803~817	883~897

MAJOR PARAMETERS

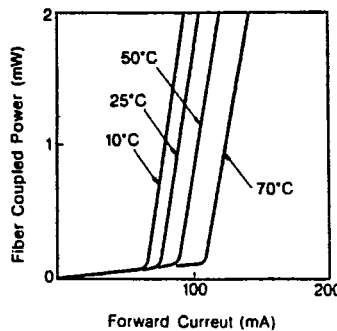
- Laser diode: AlGaAs double-hetero structure laser diode with facet passivation.
- Dimensions: 17W x 15H x 33D mm
- Weight: 15g
- Connector:
 - B: Without connector (fiber length: 1m)
 - D: D type (fiber length: 0.5m)
- Pigtail Cord
 - fiber dimension: 47/125 GI
 - outer diameter: φ2mm PVC

TYPICAL CHARACTERISTICS (Ta = 25°C)

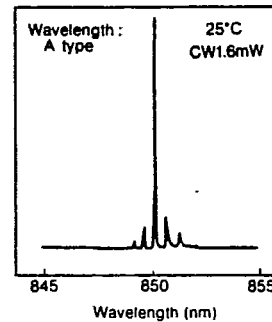
MODULE OUTPUT POWER VS FORWARD CURRENT



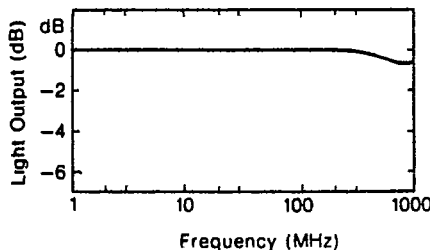
TEMPERATURE DEPENDENCE of I-L CHARACTERISTICS



SPECTRUM

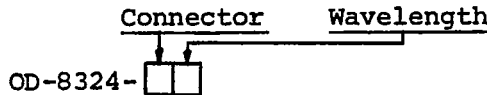


FREQUENCY RESPONSE



ORDERING FORM

When ordering please fill in connector type and wavelength information as follows.



INVISIBLE LASER RADIATION
AVOID DIRECT EXPOSURE TO BEAM
OUTPUT POWER mW
WAVELENGTH nm
CLASS II LASER

NOTES

- 1) Connector: D type (OD-9470 Series).
- 2) Specifications are subject to change without previous notice.
- 3) 0.81/0.89µm modules are on development.

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