

NEC**Fiber Optic Devices****OD-8317-□ LD Module (1.3 μ m-DC-PBH)**

OD-8317 is designed to couple LD (DC-PBH Laser Diode) output light efficiently to optical fiber.

Ge photodiode is installed in OD-8317 for APC (Automatic Power Control) and monitoring the modulated waveform.

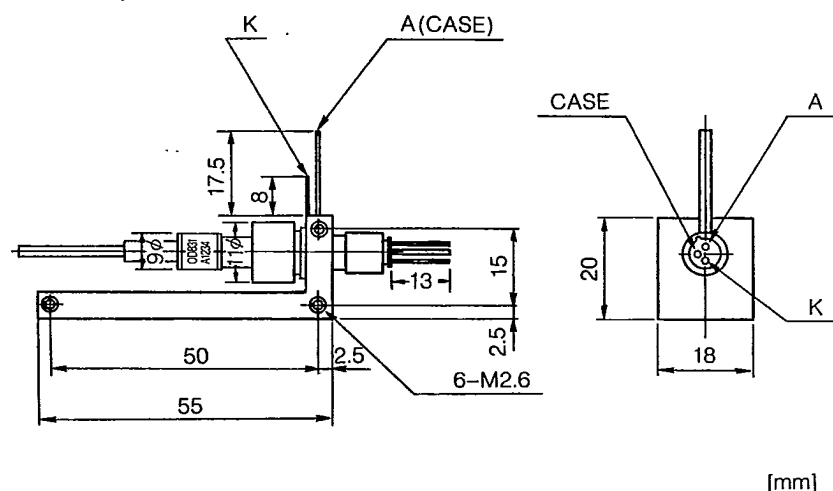
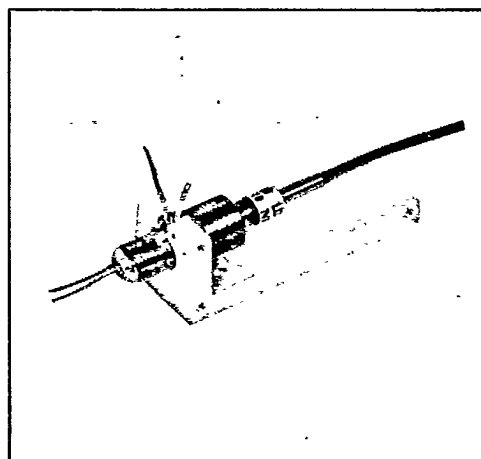
OD-8317 is especially suitable for installation in optical repeaters.

FEATURES

- High coupling efficiency from LD to optical fiber.
- High speed and high output power LD is mounted.
- High reliable construction.
- Compact and easily installed in various systems.
- Near end reflection rejected.

APPLICATIONS

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

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

PARAMETERS	SYMBOL	RATING	UNIT
Reverse Voltage	V _R	1.5	V
Forward Current	I _F	100	mA
Fiber Coupled Power	P _F	3.0	mW
Forward Current (Monitor diode)	I _F	50	mA
Reverse Voltage (Monitor diode)	V _R	20	V
Operating Case Temperature	T _{op}	-10 ~ 60	°C
Storage Temperature	T _{stg}	-40 ~ 80	°C
Soldering Temperature (5 sec.)		230	°C

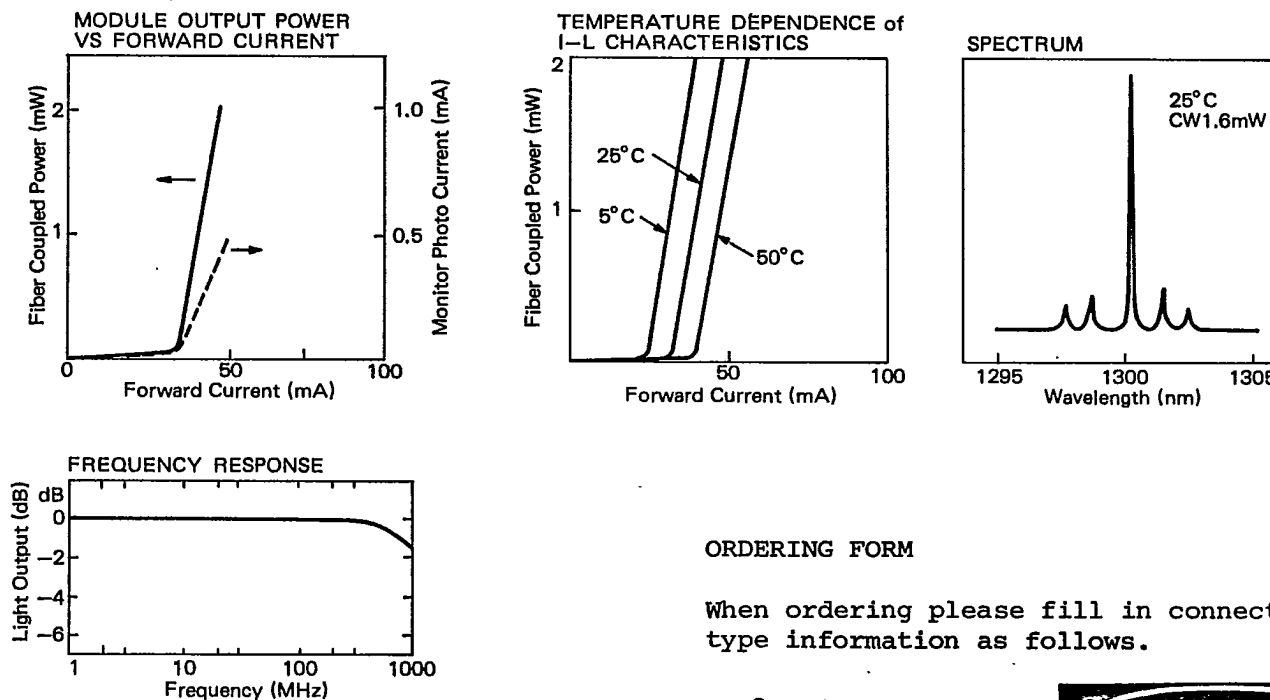
PERFORMANCE SPECIFICATIONS ($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETERS	CONDITIONS	OD-8317			UNIT
			MIN	TYP	MAX	
Pf	Fiber Coupled Power				2*	mW
I _{th}	Threshold Current			20	40	mA
$\Delta I_{th}/\Delta T_a$	Temperature Dependence of I _{th}			1.3		mA/°C
λ_0	Center Wavelength	Pf = 1.6mW	1275	1300	1325	nm
$\Delta\lambda$	Spectrum Width	(Pf = 1.6mW)			5	nm
$\Delta\lambda/\Delta T_a$	Temperature Dependence of λ_0			0.5		nm/°C
V _F	Forward Voltage	I _F = 30mA		1.3		V
t _r /t _f	Rise/Fall Time	10 ~ 90%			0.5	nsec
I _{mon}	Monitor Photo Current	Pf = 1.6mW	300	800		μA

* Light output power over 2mW is available (LD life time will be shortened). LD life time is 400,000 hours (MTTF) is light output power is limited within 2mW.

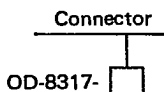
MAJOR PARAMETERS

- Laser diode: InGaAsP DC-PBH laser
- Dimensions: 18W x 20H x 55D mm
- Weight: 18g
- Connector
 - B: Without connector (fiber length: 1m)
 - D: D type (fiber length: 0.5m)
- Pigtail Cord
 - fiber dimension: 47/125 GI
 - outer diameter: $\phi 2\text{mm}$ PVC

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

ORDERING FORM

When ordering please fill in connector type 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.

NEC NEC Corporation

NEC Building
33-1, Shiba Gochome Minato-ku
Tokyo 108, Japan
Tel Tokyo 454 1111
Cable Address "MICROPHONE TOKYO"
Telex Address NECTOK J22686

NEC Electronics U.S.A., Inc.

252 Humboldt Court Bldg. B
Sunnyvale, California 94086, U.S.A.
Tel (408) 745-6520
Telex Address 35-7475 NECTRN SUVL

NEC Electronics (Europe) GmbH

NEC Electronics (Germany) GmbH
Oberrather Str.4
4000 Düsseldorf 30, West Germany
Tel: 0211-650301
Telex Address: 8587419 NEC D

FO-0005

8310

Printed in Japan