

Optical Components

Rev. 3 [10. 2008]

OL5350L-3-A10,OL5351L-3-A10

OL5353L-3-A10

Preliminary

3mW Coaxial DFB Laser Diode Modules

1. DESCRIPTION

The OL5350L-3-A10,OL5351L-3-A10,OL5353L-3-A10 series consist of an MQW-DFB laser diode, a monitor PD, a single-mode fiber and a coaxial package.

2. FEATURES

- High output power: 3.0mW fiber output power under CW
- Wide operating temperature range: Tc=0 to +75°C
- Side-mode suppression: 30dB
- Multi-quantum-well (MQW) DFB structure
- Internal monitor PD for power control
- Coaxial Package
- No TEC required

3. APPLICATION

- WDM supervisory channel in SDH system with optical in-line amplifier

4. OPTICAL AND ELECTRICAL CHARACTERISTICS

(Tc = 0 to +75°C, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Fiber Output Power	Pf	CW	3			mW
Threshold Current	Ith(25)	CW, Tc=25°C	3.5		60	mA
Operation current	Iop	Pf=3mW, CW			110	mA
Forward Voltage	Vf	Pf=3mW, CW			2	V
Peak Wavelength	λ_p	Pf=3mW, CW	1500	1510	1520	nm
Spectral width	$\Delta\lambda$	Pf=3mW, -20dB, CW			1	nm
Side Mode Suppression Ratio	SMSR	Pf=3mW, CW	30			dB
Tracking Error	TRE	Pf=3mW, Im=const., related to 25°C	-1.0		1.0	dB
Rise/Fall Times	Tr/Tf	Ibias = Ith Pf=3mW, 10-90%			0.5	ns
Photodiode Dark Current	Id	Vrd=5V			1	μ A
Monitor Current	Im	Pf=3mW, CW, Vrd=5V	100		1000	μ A
PD capacitance	Ct	Vrd=5V, f=1MHz		15		pF

$$TRE = 10 \cdot \log \{ Pf(WCT) / Pf(25^\circ C) \}$$

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5.ABSOLUTE MAXIMUM RATING

(Tc = +25°C, unless otherwise specified)

Parameter	Symbol	Rating	Unit
Fiber Output Power	Pf	3.5	mW
LD Forward Current	Ifl	150	mA
LD Reverse Voltage	Vrl	2	V
Photodiode Forward Current	Ifd	10	mA
Photodiode Reverse Voltage	Vrd	15	V
Operating Temperature(Case)	Tc	0 to 75	°C
Storage Temperature	Tstg	-40 to 85	°C
Soldering(Max.10sec.)	Tsld	260	°C

6.CONNECTOR AND FIBER SPECIFICATIONS

Parameter	Specifications	Unit
Type	SM	---
Mode Field Diameter	9+/-1	μm
Cladding Diameter	125+/-2	μm
Jacket Diameter	900	μm
Length	1000 (Min.)	mm

7.ORDERING INFORMATION

OL535 3 L - 3 - A10 - AT LC

Pin Assignment

0: C type
1: A type
3: B type
(See P.4)

Flange type

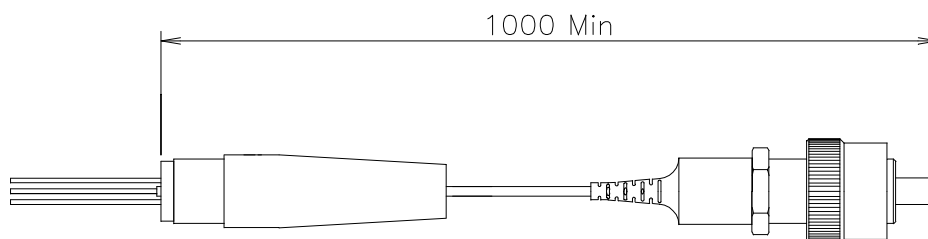
AT: Angled thin Flange
SF: Straight Flange
NF: No Flange

Connector type

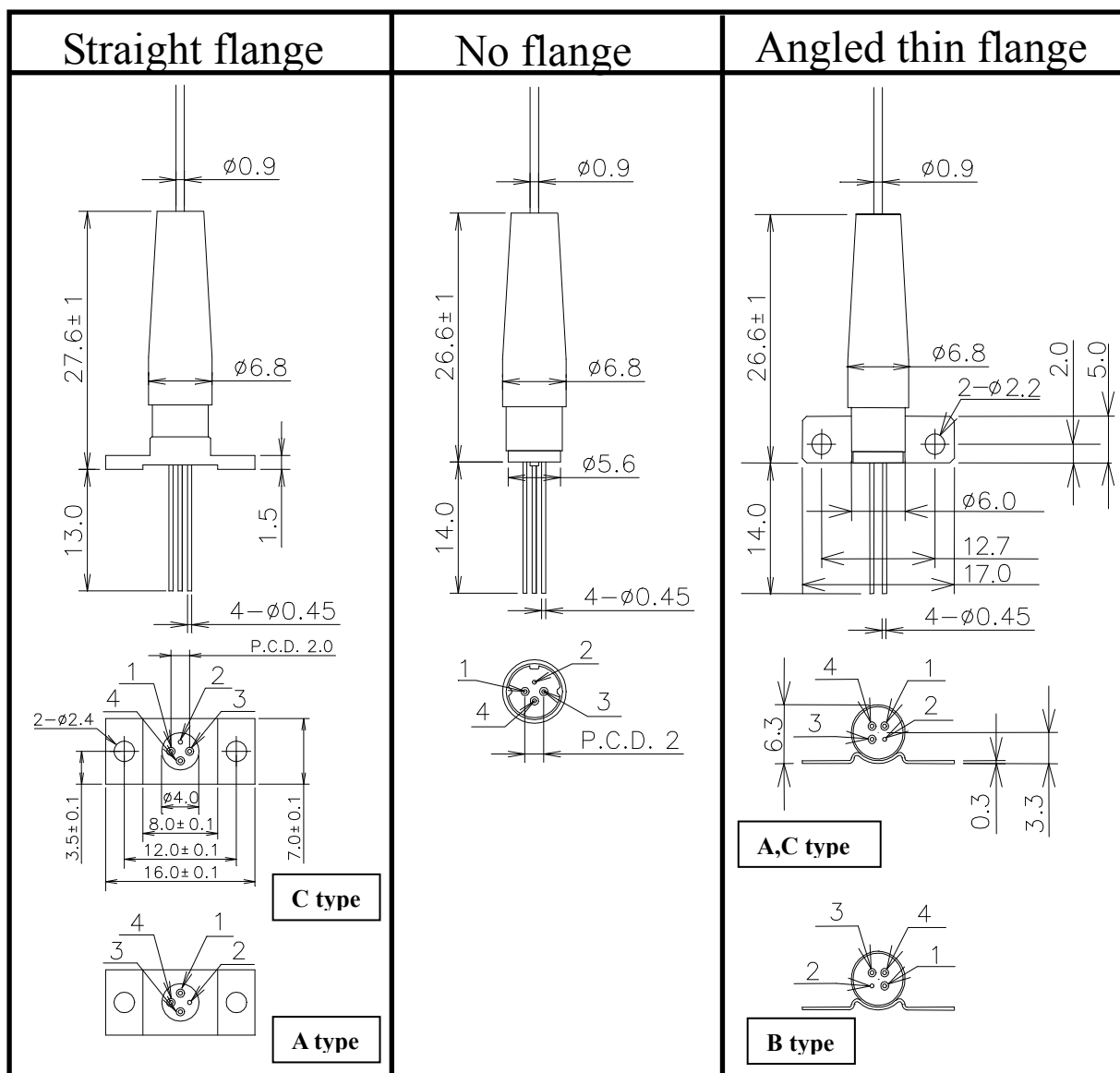
SC: SC Connector
FC: FC Connector
LC: LC Connector
MU: MU Connector
MUJ: MU-J Connector

8.OUTLINE DRAWING

Length (mm)



All dimensions in millimeters

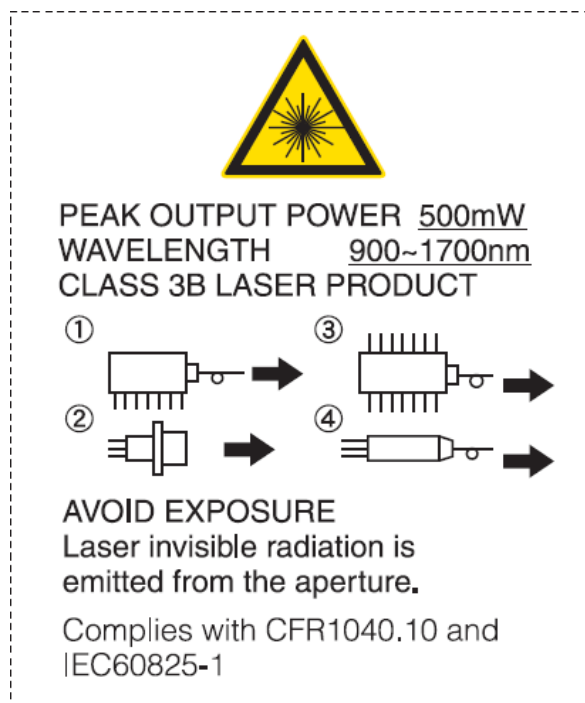


Pin Assignment

OL5350L (C type)	OL5351L (A type)	OL5353L (B type)																																				
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9. SAFETY INFORMATION ON THIS PRODUCT



Warning Laser Beam	A laser beam is emitted from this laser diode during operation. The invisible or visible laser beam, directly or indirectly, may cause injury to the eye or loss of eyesight. Do not look directly into the laser beam. Avoid exposure to the laser beam, any reflected or collimated beam.
Caution GaAs Product	The product contains gallium arsenide, GaAs. GaAs vapor and powder are hazardous to human health if inhaled, ingested or swallowed. Do not destroy or burn the product. Do not crush or chemically dissolve the product. Do not put the product in the mouth. Observe related laws and company regulations when discarding this product. The product should be excluded from general industrial waste or household garbage.
Caution Optical Fiber	A glass-fiber is attached on the product. Handle with care. When the fiber is broken or damaged, handle carefully to avoid injury from the damaged part or fragments.

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