

Coaxial Pigtail CWDM DFB LD



GLD300 series lasers are InGaAsP/InP MQW DFB laser diodes at any appointed channel of up to 18 CWDM wavelengths. The laser diode is mounted into a coaxial package integrated with an InGaAs monitor PD and a single mode 1-meter long 900um diameter fiber pigtail. This module has a single stage isolator integrated inside.

Features:

- Uncooled CWDM Wavelength MQW DFB Laser Diode
- 18 CWDM Wavelength available
- Built-in InGaAs PD Monitor
- High-Speed Operation Up to 3.2Gbps
- Laser Welding Assembly Method
- High Reliability
- Complied with Telcordia GR-468
- Complied with RoHS

Absolute maximum ratings

Parameter	Symbol	Ratings	Unit
Storage temperature	Tstg	-40~+85	°C
Operating case temperature	Top	-0~+70	°C
Fiber output power	Pf	10	mW
Forward current (LD)	IfL	150	mA
Reverse voltage (LD)	VrL	2	V
Reverse voltage (PD)	VrP	15	V
Reverse current (PD)	IrP	2	mA
Soldering temperature (<10s)	Stemp	260	°C

Electrical and optical characteristics (Tc=+25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold current	Ith	CW	—	10	20	mA
		CW, Tc=-0~+70°C	—	—	50	
Optical output power	Pf	CW, If=Ith+20mA	0.5	—	2.5	mW

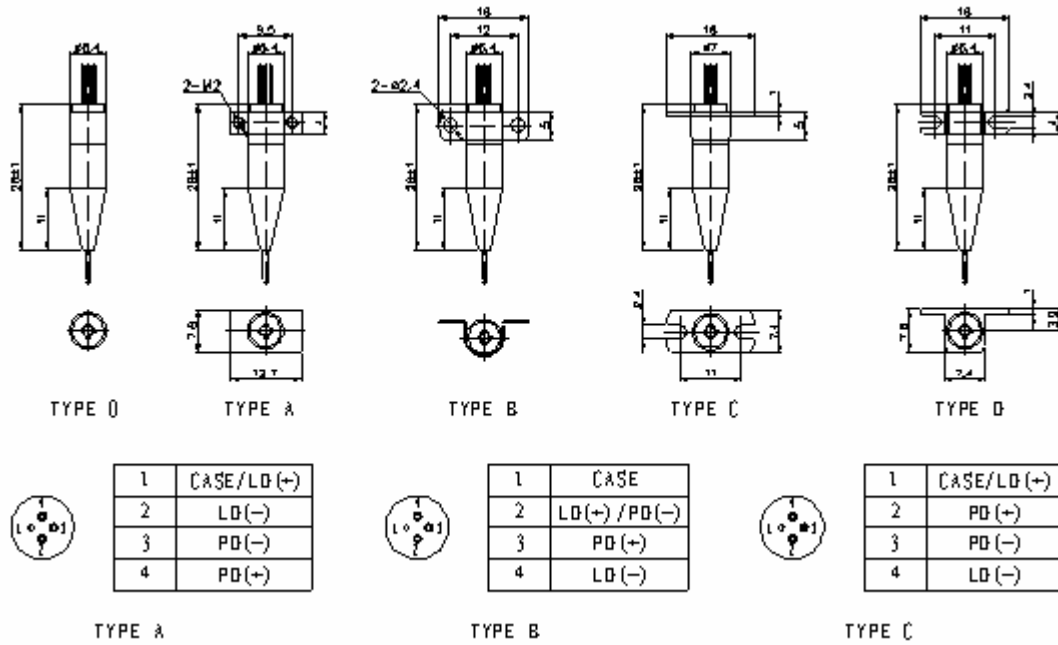
Operating voltage	Vf			—	1.7	V
Slope efficiency	Se	CW	0.05	—	0.15	mW/m
		CW, Tc=-0~+70°C	0.03	—	0.25	A
Peak wavelength	λ_p	CW	Note 1			nm
Wavelength temperature coeff.	—	CW, Tc=-0~+70°C	0.07	0.1	0.12	nm/°C
Side-mode suppression ratio	SMSR	CW, Tc=-0~+70°C	30	—	—	dB
Tracking error	Pf	Im hold (@pf=2mW(+25C)), CW, Tc=-0~+70°C	-1.0	—	1.0	dB
Rise time	tr	Ib=Ith, 20-80%, Tc=-0~+70°C	—	0.05	0.10	ns
Fall time	tf	Ib=Ith, 20-80%, Tc=-0~+70°C	—	0.10	0.15	ns
Extinction ratio	Er	10log(2mW/Pf(Ith)), Tc=-0~+70°C	10	—	—	dB
Monitor current	Im	CW, Vrp=5V, Tc=-0~+70°C	50	—	1500	μ A
Monitor dark current	Id	Vrp=5V	—	—	100	nA
Monitor capacitance	C	Vrp=5V, f=1MHz	—	—	10	pF

Note 1: Detail of peak wavelength specification (Unit: nm) (18 channels)

	Min.	Typ.	Max.
channel 1	1607	1610	1613
channel 2	1587	1590	1593
channel 3	1567	1570	1573
channel 4	1547	1550	1553
channel 5	1527	1530	1533
channel 6	1507	1510	1513
channel 7	1487	1490	1493
channel 8	1467	1470	1473
channel 9	1447	1450	1453
channel 10	1427	1430	1433
channel 11	1407	1410	1413
channel 12	1387	1390	1393
channel 13	1367	1370	1373
channel 14	1347	1350	1353
channel 15	1327	1330	1333
channel 16	1307	1310	1313
channel 17	1287	1290	1293
channel 18	1267	1270	1273

Spectral Bandwidth ± 3 nm

Mechanical Dimension and Pin Assignment



Unit:mm

Tolerance: ± 0.1 mm, unless otherwise noted.

Ordering Information

GLD300-W-X-Y-Z-D 3.2Gb/s CWDM Coaxial DFB Laser

W (CWDM Channel): 1 to 18

X (Pigtail Output Power): 05_0.5mW, 10_1.0mW, 15_1.5mW, 20_2.0mW

Y (Data Rate): 1_1.25Gb/s, 2_2.5Gb/s, 3_3.2Gb/s

Z (Package Type): 0 or A or B or C or D

D (Pigtail Connector): SU_SC/UPC, FU_FC/UPC, SA_SC/APC, FA_FC/APC