

# QDLASER

## QLD1261-4005

1240 nm DFB Laser Butterfly Package

**Preliminary**

C00072-04 July, 2014



### 1. DESCRIPTION

QLD1261-4005 is a 1240-nm distributed feedback (DFB) laser assembled into a 14-pin butterfly package with an optical isolator, a monitor PD and a thermo-electric cooler.

### 2. FEATURES

- Single longitudinal mode operation at 1240 nm
- Fiber-pigtailed 14-pin butterfly package with a TEC
- Optical isolator integration
- Polarization maintaining fiber integration

### 3. APPLICATIONS

- Test and measurement
- Sensing

### 4. ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATING	UNIT
Optical Output power	$P_f$	20	mW
LD Forward Current	$I_f$	150	mA
LD Reverse Voltage	$V_{RLD}$	2	V
TEC Drive Current	$I_{TEC}$	2	A
TEC Drive Voltage	$V_{TEC}$	4.3	V
Operating Temperature	$T_c$	0 to 60	°C
Storage Temperature	$T_{stg}$	-40 to 85	°C
Lead Soldering Temperature (5 s)	$T_{sld}$	230	°C

### 5. OPTICAL AND ELECTRICAL CHARACTERISTICS

( $T_{LD} = 25^{\circ}\text{C}$ , unless otherwise specified)

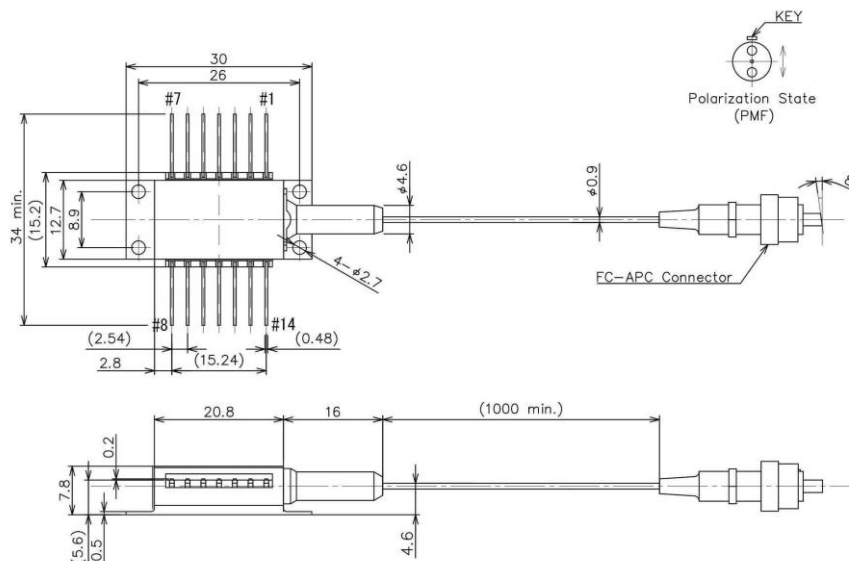
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold Current	$I_{th}$	CW	-	7	-	mA
Fiber Output Power	$P_f$	CW, $I_f=100\text{mA}$	5	10	-	mW
Operating Current	$I_{op}$	CW, $P_f=5\text{ mW}$	-	50	100	mA
Operating Voltage	$V_{op}$	CW, $P_f=5\text{ mW}$	-	1.5	2.0	V
Peak Wavelength	$\lambda_p$	CW, $P_f=5\text{ mW}$	1235	1240	1245	nm
Side Mode Suppression Ratio	SMSR	CW, $P_f=5\text{ mW}$	-	40	-	dB
Polarization Extinction Ratio	PER	CW, $P_f=5\text{mW}$	15	20	-	dB
Fiber Cut-off Wavelength	-	-	-	0.9	-	$\mu\text{m}$
Thermistor Resistance	$R_{th}$	$T_{LD} = 25^{\circ}\text{C}$ , $B=3930\text{K}$	9.5	10	10.5	k $\Omega$

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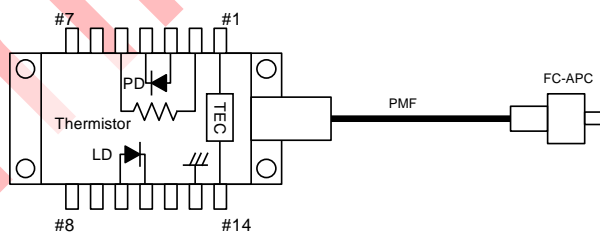
## 6. OUTLINE DRAWING AND PIN CONFIGURATION



All dimensions in millimeters.

## 7. PIN CONFIGURATION

No.	Description	No.	Description
1	TEC (+)	8	NC
2	Thermistor	9	NC
3	PD Anode	10	Laser Anode
4	PD Cathode	11	Laser Cathode
5	Thermistor	12	NC
6	NC	13	Case Ground
7	NC	14	TEC (-)



## 8. NOTICE

### • Safety Information

This product is classified as Class 3B laser product, and complies with 21 CFR Part 1040.10.

Please do not take a look at laser lighting in operations since laser devices may cause troubles to human eyes.

Please do not eat, burn, break and make chemical process of the products since they contain GaAs material.

### • Handling products

Semiconductor lasers are easily damaged by external stress such as excess temperature and ESD. Please pay attention to handling products, and use within range of maximum ratings. QD Laser takes no responsibility for any failure or unusual operation resulting from improper handling, or unusual physical or electrical stress.

### • RoHS

This product conforms to RoHS compliance related EU Directive 2011/65/EU.

**QD Laser, Inc.**

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