

# QLF063M-50B0

650nm 200mW TO56 with 2 pins

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## 1. DESCRIPTION

The QLF063M-50B0 is a 650 nm quantum well laser device designed for visible laser application. The laser diode is mounted into a TO-56 header with 2 pins and hermetic sealed with a flat glass cap.

## 2. FEATURES

- 650 nm FP-LD
- $\Phi 5.6\text{mm}$  TO-CAN package with 2 pins
- Monitor PD less

## 3. APPLICATIONS

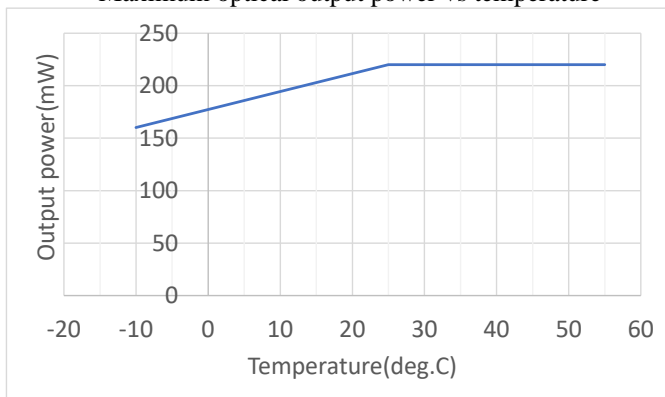
- Sensing
- Measuring instruments

## 4. ABSOLUTE MAXIMUM RATING

(CW operation,  $T_c = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	RATING	UNIT
Optical output power	$P_o(\text{CW})$	$T_c = 25 \text{ to } 55^\circ\text{C}$	220*	mW
		$T_c = -10 \text{ to } 25^\circ\text{C}$	$160 + 1.71 \times \{T_c - (-10^\circ\text{C})\}^*$	mW
		$T_c = -10^\circ\text{C}$	160	mW
LD reverse voltage	$V_{\text{RLD}}$	-	2	V
Operation temperature	$T_c$	-	-10 to 55	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-	-40 to 85	$^\circ\text{C}$

\* Maximum optical output power vs temperature

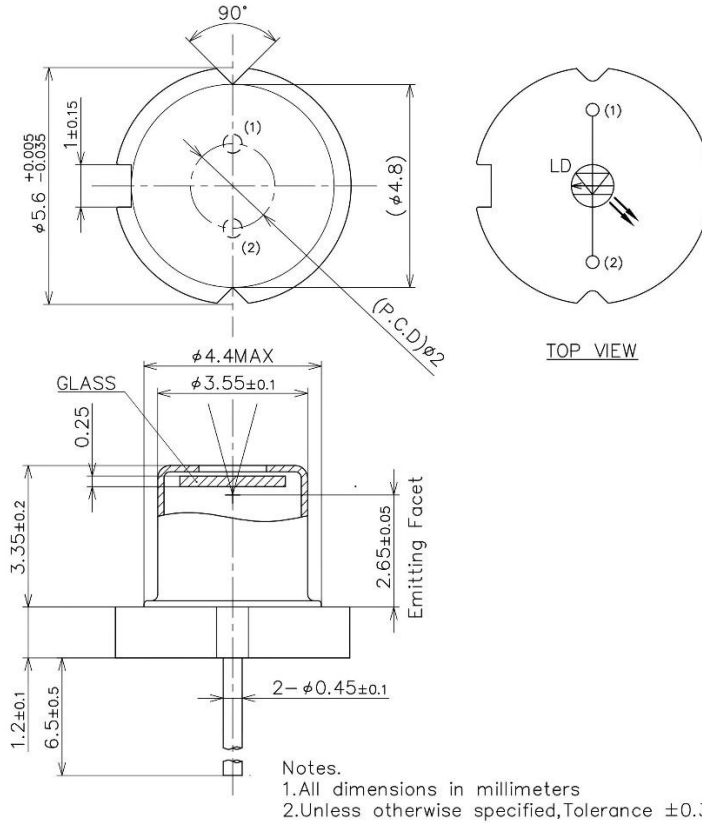


**5. OPTICAL AND ELECTRICAL CHARACTERISTICS**

 (T<sub>c</sub> = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold current	I <sub>th</sub>	CW	-	55	75	mA
Operation current	I <sub>op</sub>	CW, P <sub>o</sub> =200mW	-	220	245	mA
Operation voltage	V <sub>op</sub>	CW, P <sub>o</sub> =200mW	2.0	2.6	3.0	V
Slope efficiency	η	CW, P <sub>o</sub> = 30 – 200 mW	0.9	1.2	-	W/A
Peak wavelength	λ <sub>p</sub>	CW, P <sub>o</sub> =200mW	646	650	654	nm
Beam divergence, horizontal	θ <sub>h</sub>	CW, P <sub>o</sub> =200mW, FWHM	6	8	10	deg.
Beam divergence, vertical	θ <sub>v</sub>	CW, P <sub>o</sub> =200mW, FWHM	9.5	12.5	16	deg.
Beam angle, horizontal	Δθ <sub>h</sub>	CW, P <sub>o</sub> =200mW	-5	-	5	deg.
Beam angle, vertical	Δθ <sub>v</sub>	CW, P <sub>o</sub> =200mW	-5	-	5	deg.

**6. Outline Drawing**



**7. 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 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 Directive (EU) 2015/863.

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