



1. DESCRIPTION

The QLF063M-50A8 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
- Φ 5.6mm TO-CAN package with 2 pins
- Monitor PD less

3. APPLICATIONS

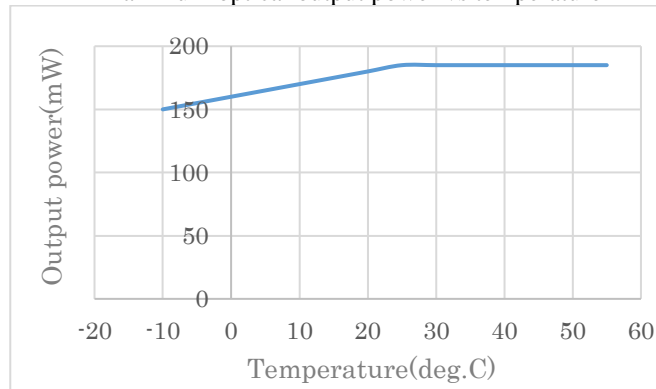
- Sensing
- Measuring instruments

4. ABSOLUTE MAXIMUM RATING

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

PARAMETER	SYMBOL	CONDITION	RATING	UNIT
Optical output power	$P_o(\text{CW})$	$T_c = 25 \text{ to } 55^\circ\text{C}$	185*	mW
		$T_c = -10 \text{ to } 25^\circ\text{C}$	$150 + \{T_c - (-10^\circ\text{C})\}^*$	mW
		$T_c = -10^\circ\text{C}$	150	mW
LD reverse voltage	V_{RLD}	-	2	V
Operation temperature	T_c	-	-10 to 55	$^\circ\text{C}$
Storage temperature	T_{stg}	-	-40 to 85	$^\circ\text{C}$

* Maximum optical output power vs temperature

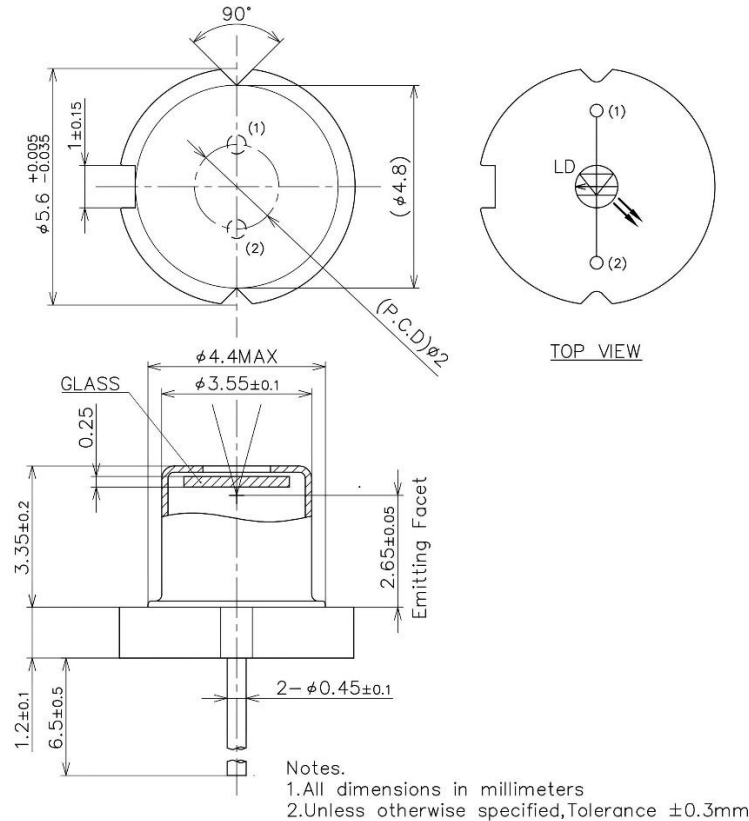


5. OPTICAL AND ELECTRICAL CHARACTERISTICS

 (T_c = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold current	I _{th}	CW	-	55	-	mA
Operation current	I _{op}	CW, P _o =180mW	-	200	-	mA
Operation voltage	V _{op}	CW, P _o =180mW	-	2.55	-	V
Slope efficiency	η	CW, P _o = 30 – 180 mW	-	1.2	-	W/A
Peak wavelength	λ _p	CW, P _o =200mW	646	650	654	nm
Beam divergence, horizontal	θ _h	CW, P _o =180mW, FWHM	-	8	-	deg.
Beam divergence, vertical	θ _v	CW, P _o =180mW, FWHM	-	12.5	-	deg.
Beam angle, horizontal	Δθ _h	CW, P _o =180mW	-5	-	5	deg.
Beam angle, vertical	Δθ _v	CW, P _o =180mW	-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.

QD Laser, Inc.

Contact : info@qdlaser.com <http://www.qdlaser.com>

Copyright 2024 All Rights Reserved by QD Laser Inc.

Address : Keihin Bldg.1F 1-1 Minamiwataridacho, Kawasaki-ku, Kawasaki, Kanagawa Zip 210-0855 Japan

All company or product names mentioned herein are trademarks or registered trademarks of their respective owners. Information provided in this data sheet is accurate at time of publication and is subject to change without advance notice.