

# QDLASER

## QLF063A /QLF063D

660 nm 100mW FP LASER TO-CAN

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### 1. DESCRIPTION

The QLF063A/QLF063D are 660 nm quantum well laser devices designed for high output power application. The laser diode is mounted into a TO-56 header including a monitor PD and hermetic sealed with a flat glass cap.

### 2. FEATURES

- 660 nm FP-LD
- $\Phi$ 5.6mm TO-CAN package
- High output power of 100mW and high slope efficiency
- Including monitor PD
- Two types of pin assignments: anode common type (QLF063A)/cathode common type (QLF063D)

### 3. APPLICATIONS

- Industrial laser markers
- Measuring instruments
- Life science applications

### 4. ABSOLUTE MAXIMUM RATING

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

PARAMETER	SYMBOL	RATING	UNIT
Optical output power	$P_o$	130	mW
LD reverse voltage	$V_{RLD}$	2	V
PD reverse voltage	$V_{RPD}$	30	V
Operation temperature	$T_c$	-10 to 60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to 85	$^\circ\text{C}$

## 5. OPTICAL AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold current	$I_{th}$	CW	-	55	70	mA
Operation current	$I_{op}$	CW, $P_o=100\text{ mW}$	-	145	200	mA
Operation voltage	$V_{op}$	CW, $P_o=100\text{ mW}$	-	2.5	3.0	V
Slope efficiency	$\eta$	CW, $P_o=5 - 100\text{ mW}$	0.8	1.1	-	W/A
Monitor current	$I_m$	CW, $P_o=100\text{ mW}$ , $V_{RD}=5\text{ V}$	50	280	600	$\mu\text{A}$
Peak wavelength	$\lambda_p$	CW, $P_o=100\text{ mW}$	655	660	665	Nm
Far filed pattern horizontal	$\theta_h$	CW, $P_o=100\text{ mW}$	7	10	13	deg.
Far filed pattern vertical	$\theta_v$	CW, $P_o=100\text{ mW}$	11	14	17	deg.
Beam angle Horizontal	$d\theta_h$	CW, $P_o=100\text{ mW}$	-3	-	3	deg.
Beam angle vertical	$d\theta_v$	CW, $P_o=100\text{ mW}$	-3	-	3	deg.





