

QAL-785-04-F-18-1/2/3 :: AlGaAs LASER DIODE



[OVERVIEW]

QAL-780-04-D-18-1/2/3 is a MOCVD grown 780nm band AlGaAs laser diode with quantum well structure. It's an attractive light source, with a typical light output power of 5mW for industrial optical module and sensor applications.

[FEATURES]

- Visible Light Output : $\lambda_p = 780\text{nm}$
- Optical Power Output : 5mW CW
- Package Type : TO-18 (5.6mm ϕ)
- Built-in Photo Diode for Monitoring Laser Diode

[APPLICATION]

- Industrial optical module
- Sensor

ABSOLUTE MAXIMUM RATING AT Tc=25°C

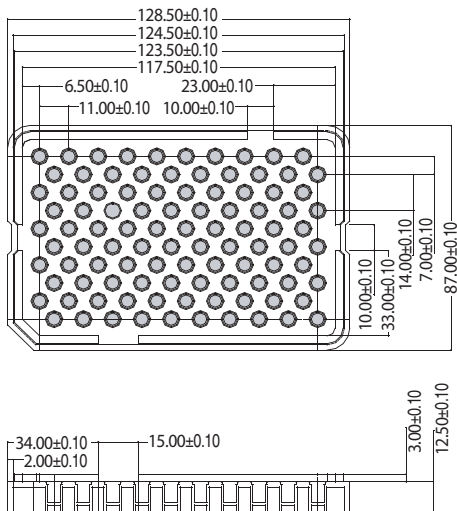
ITEMS	SYMBOLS	VALUES	UNIT
Optical Output Power	P	6	mW
Laser Diode Reverse Voltage	V	2	V
Photo Diode Reverse Voltage	V	30	V
Operating Temperature	Topr	-10 ~ +80	°C
Storage Temperature	Tstg	-40 ~ +85	°C

ELECTRICAL AND OPTICAL CHARACTERISTICS AT Tc=25°C

ITEMS	SYMBOLS	MIN.	TYP.	MAX.	UNIT	CONDITION
Optical Output Power	Po	-	5	-	mW	-
Threshold Current	I _{th}	-	14	18	mA	-
Operating Current	I _{op}	-	21	26	mA	Po=5mW
Operating Voltage	V _{op}	-	1.9	2.5	V	Po=5mW
Slope Efficiency	SE	0.5	0.8	1.2	mW/mA	Po=3 ~ 5mW
Lasing Wavelength	λ_p	770	785	800	nm	Po=5mW
Beam Divergence	$\theta_{ }$	6	9	14	deg	Po=5mW
	θ_{\perp}	26	30	34	deg	Po=5mW
Beam Angle	$\Delta\theta_{ }$	-	-	±2	deg	Po=5mW
	$\Delta\theta_{\perp}$	-	-	±3	deg	Po=5mW
Monitor Current	I _m	0.1	0.3	0.6	mA	Po=5mW
Optical Distance	$\Delta X, \Delta Y, \Delta Z$	-	-	±60	μm	Po=5mW
Astigmatism	As	-	-	15	μm	Po=5mW

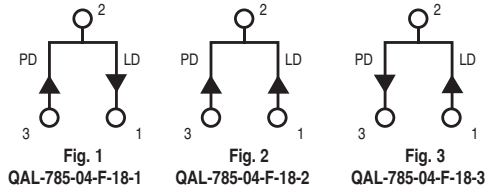
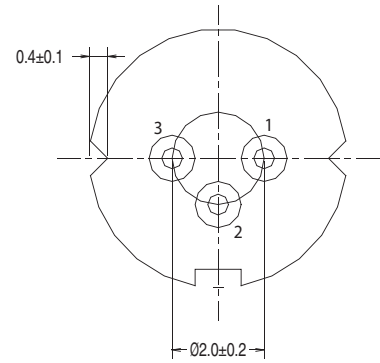
NOTICE : QAL-785-04-F-18-1/2/3 TO BE OPERATED ON APC
THE ABOVE PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

[PACKING]



[ELECTRICAL CONNECTION]

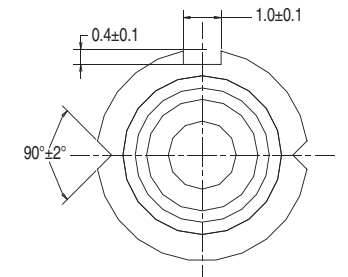
BOTTOM VIEW



1	LD cathode, PD anode (Fig. 1)
2	LD, PD anode (Fig. 2)
3	LD anode, PD cathod (Fig. 3)

[PACKAGE DIMENSION]

TOP VIEW



BOTTOM VIEW

