

## 808nm 1000mW TO-5 Laser Diode

**Model: AL0808F1000T5-XXFW**



### Features:

- Output power: 1000mW
- Efficient quantum well structure
- Center Wavelength: 808nm
- Package: TO-5 (ø9mm)

### Absolute Maximum Ratings( $T=25\text{ }^{\circ}\text{C}$ )

Parameter	Symbol	Unit	Min	Max	Note
Reverse Voltage	$V_r$	V	-	2	-
Operating Temperature	$T_o$	$^{\circ}\text{C}$	-10	30	-
Storage Temperature	$T_{stg}$	$^{\circ}\text{C}$	-10	85	-
Solder Reflow Temperature	$S_{temp}$	$^{\circ}\text{C}$	-	260	10 seconds max

### Electro-Optical Characteristics( $T=25\text{ }^{\circ}\text{C}$ )

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Optical output power	$P_o$	mW	1000	-	-	$I_{op}=1300\text{mA}$
Center wavelength	$\lambda_c$	nm	803	808	813	$P_o=1000\text{mW}$
Spectral width	$\Delta\lambda$	nm	-	-	5	FWHM, $P_o=1000\text{mW}$
Threshold current	$I_{th}$	mA	-	220	300	-
Operating current	$I_o$	mA	-	1150	1300	-
Operating voltage	$V_f$	V	-	1.8	2	$P_o=1000\text{mW}$
Slope Efficiency	$\eta$	W/A	-	1.05	-	-
Monitoring current	$I_m$	$\mu\text{A}$	-	400	1500	$P_o=1000\text{mW}$
Beam divergence	$\theta_{\perp} \times \theta_{\parallel}$	$^{\circ}$	-	$40 \times 12$	-	FWHM
Wavelength temperature coefficient	$d_{\lambda}/d_T$	nm/ $^{\circ}\text{C}$	-	0.3	-	-
Emitting area	-	$\mu\text{m}$	80 $\times$ 1			-
Polarization Ratio	-	-	TE			-

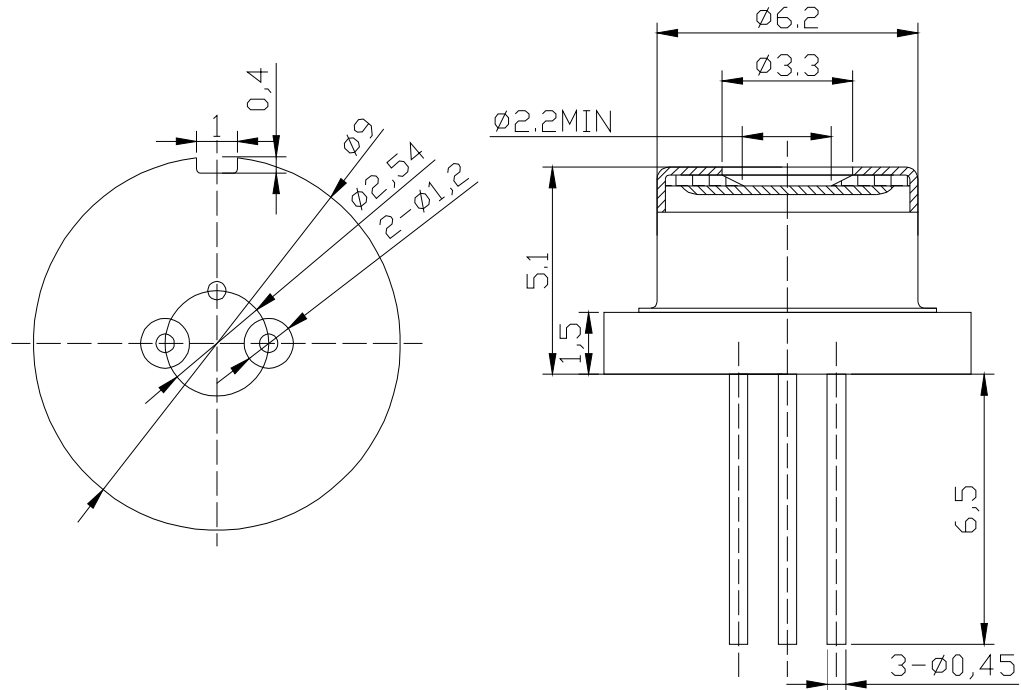
Associated Opto-electronics (Chongqing) Corp. 14# Huayuan Rd., Nanping, Chongqing 400060

Tel: 023-62925588

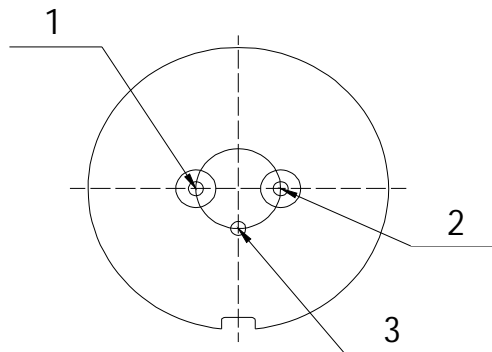
Fax: 023-62804240

Web: [www.aocq.com](http://www.aocq.com)

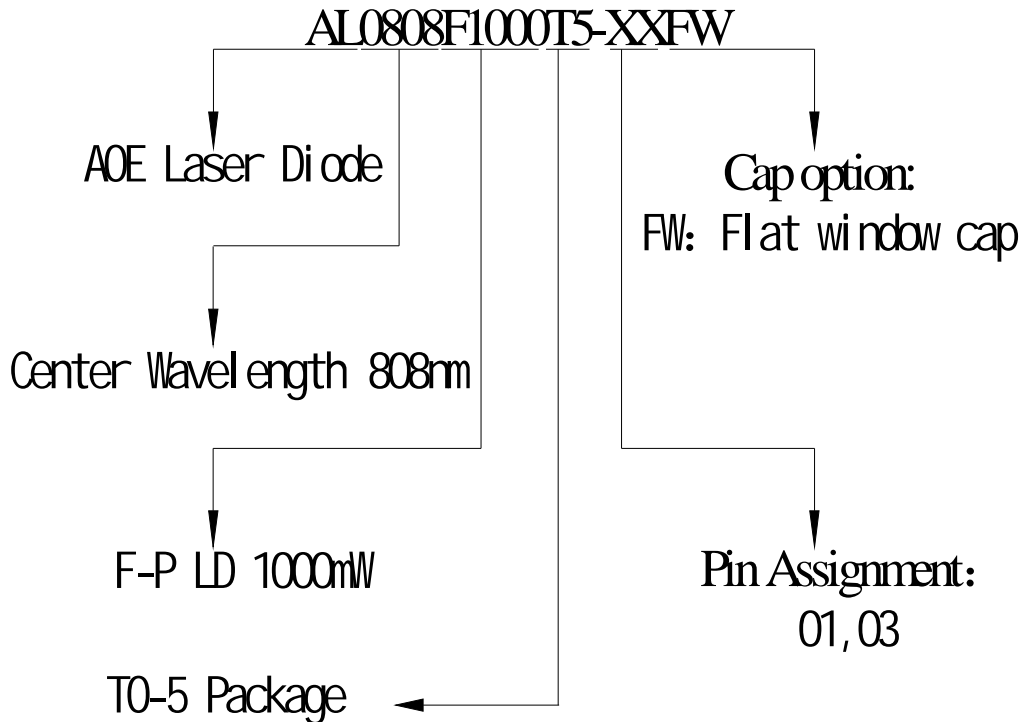
**Outline Drawings (FW) (in: mm)**



**Pin Assignment (Bottom View)**



Pin Assignment			
Type \ PIN	1	2	3
01	PD Anode	LD Cathode	LD Anode/PD Cathode
03	-	LD Cathode	LD Anode

**Ordering information:****Precaution:**

- (1) The laser diodes should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. For assembling, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.
- (4) A voltage stabilizer should be taken into consideration for the power supply, and shock voltage should be avoided during the process of switching on and off of the supply in order to prevent the device from damaging.

**Warning:** Direct exposure of one's eyes to the laser beam or long time exposure of one's skin to the beam must be avoided.