



808nm 500mW TO-18 Laser Diode

Model: AL0808F500T18-XXFW



Features:

- Output power: 500mW
- Efficient quantum well structure
- Lower threshold current
- Center Wavelength: 808nm
- Package: TO-18 (Φ5.6mm)

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	500	-	-	$I_{op}=650\text{mA}$
Center wavelength	λ_c	nm	805	808	811	$P_o=500\text{mW}$
Spectral width	$\Delta\lambda$	nm	-	-	3.5	FWHM, $P_o=500\text{mW}$
Threshold current	I_{th}	mA	-	120	150	
Operating current	I_o	mA	-	570	650	
Operating voltage	V_f	V	-	1.7	2	$P_o=500\text{mW}$
Slope Efficiency	η	W/A	-	1.1	-	
Monitoring current	I_m	μA	-	500	1500	$P_o=500\text{mW}$
Beam divergence	$\theta_{\perp} \times \theta_{\parallel}$	$^{\circ}$	-	40×12	-	FWHM
Wavelength temperature coefficient	d_{λ}/d_T	$\text{nm}/^{\circ}\text{C}$	-	0.3	-	-
Emitting area	-	μm	50×1			-
Polarization Ratio	-	-	TE			-

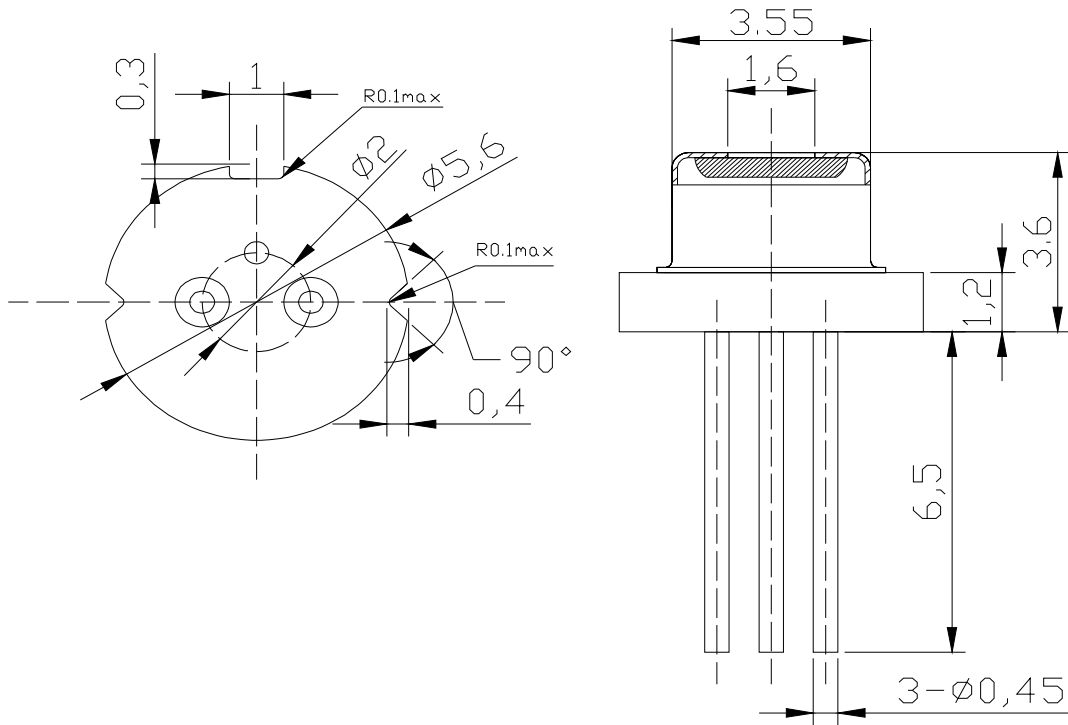
Associated Opto-electronics (Chongqing) Corp. 14# Huayuan Rd., Nanping, Chongqing 400060

Tel: 023-62925588

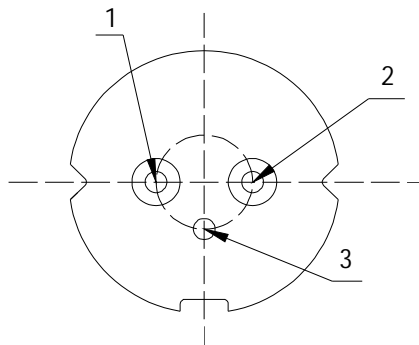
Fax: 023-62804240

Web: www.aocq.com

Outline Drawings (FW) (in: mm)



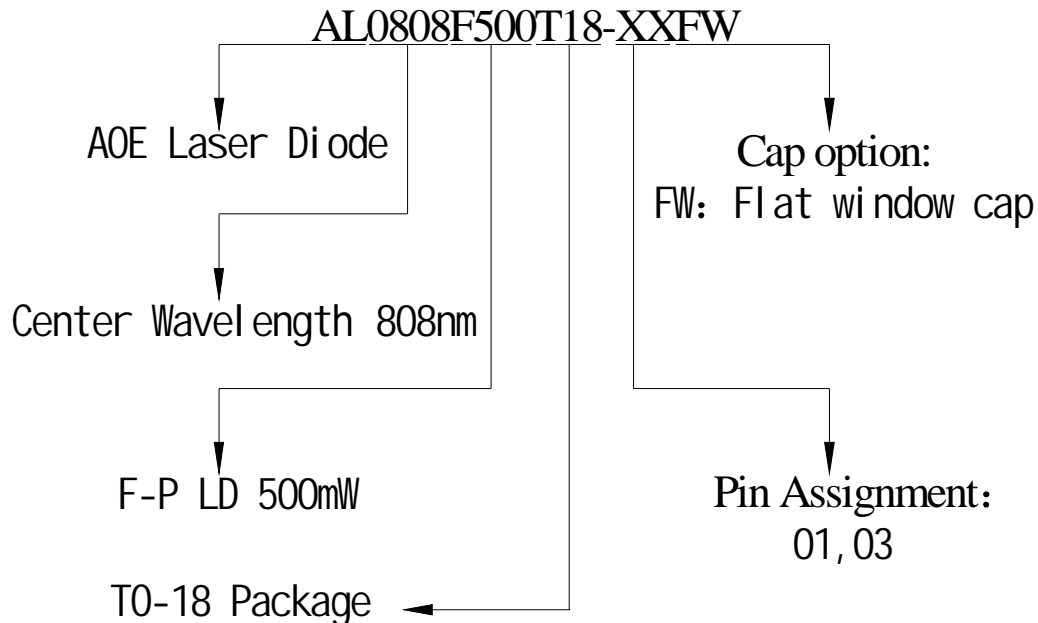
Pin Assignment (Bottom View)



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 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.