



980nm 3000mw TO-3 Laser Diode

Model: AL0980F3000T3-08PS-FW



Features:

- Output power: 3000mW
- Efficient quantum well structure
- Center Wavelength: 980nm
- Package: TO3

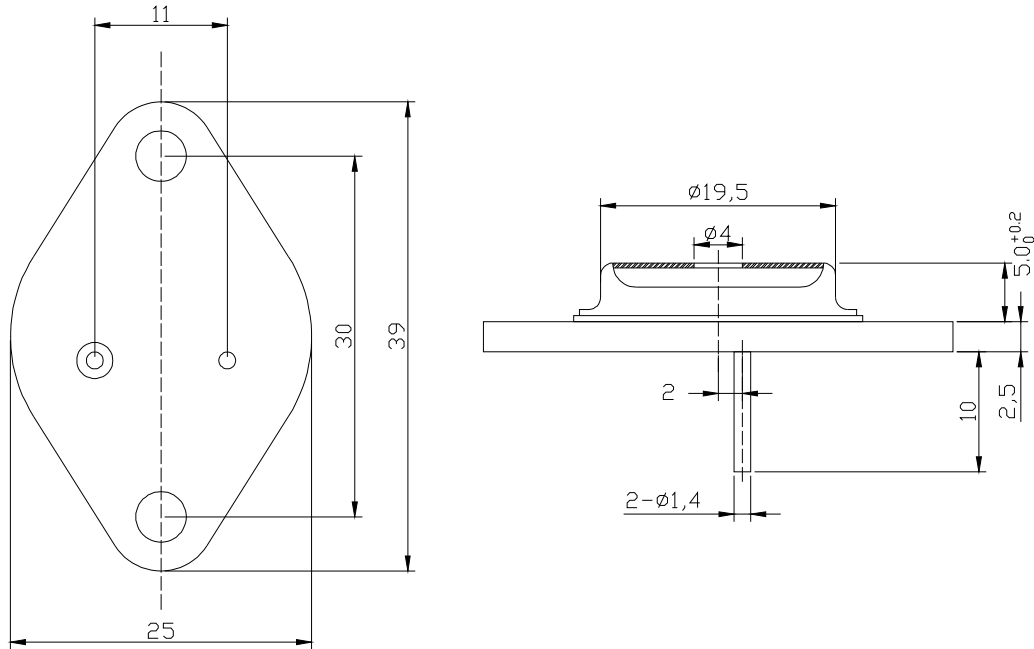
Absolute Maximum Ratings($T=25\text{ }^{\circ}\text{C}$)

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 Temperature	S_{temp}	$^{\circ}\text{C}$	-	260	10 seconds max

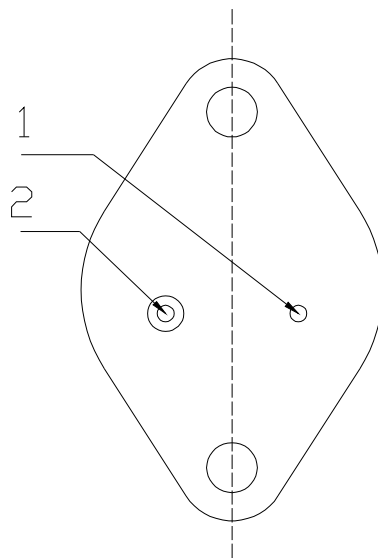
Electro-Optical Characteristics($T=25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Optical output power	P_o	mW	3000	-	-	$I_{op}=3700\text{mA}$
Center wavelength	λ_c	nm	970	980	990	$P_o=3000\text{mW}$
Spectral width	$\Delta\lambda$	nm	-	-	5	FWHM, $P_o=3000\text{mW}$
Threshold current	I_{th}	mA	-	350	450	
Operating current	I_o	mA	-	3400	3700	
Operating voltage	V_f	V	-	1.8	2.2	$P_o=3000\text{mW}$
Slope Efficiency	η	W/A	-	1	-	
Beam divergence	$\theta_{\perp} \times \theta_{//}$	$^{\circ}$	-	40×12	-	FWHM
Beam divergence (fast axis collimated)	$\theta_{\perp} \times \theta_{//}$	$^{\circ}$	-	10×12	-	FWHM
Wavelength temperature coefficient	$d\lambda/dT$	nm/ $^{\circ}\text{C}$	-	0.3	-	-
Emitting area	-	μm	100 \times 1			-
Polarization Ratio	-	-	TE			-

Outline Drawings (in: mm)



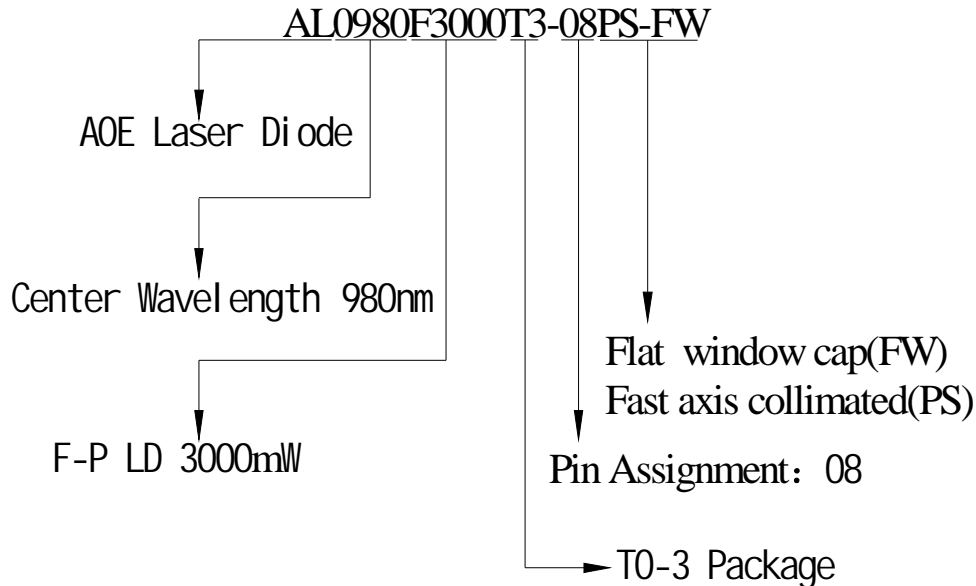
Pin Assignment:



Type \ Pin	1	2
08	LD Anode	LD Cathode



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.
- (5) Pay attention to the dust polluting. The device may be damaged when operating in atmosphere because the dust may be absorbed onto the region of lighting under the action of electric field.

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.



文件类型

产品规格书

文件编号

AOE/GJS-16-2012

文件名称

980nm3000mW TO3 封装
激光器规格书

版次

1.1

总页数

3

修改记录

版次	修改内容	修改/日期	审核/日期	批准/日期	生效日期
1.1	1: 产品型号由 AL0980F3000T3-08PS 调整为 AL0980F3000T3-08PS-PW。 2: 输出功率参数的测试条件由 $I_{op}=3500mA$ 调整为 $I_{op}=3700mA$ 。 3: 中心波长参数的测试条件由 $I_{op}=3100mA$ 调整为 $P_o=3000mW$ 。 4: 光谱宽度参数的测试条件由 $FWHM, I_{op}=3100mA$ 调整为 $FWHM, P_o=3000mW$ 5: 工作电流的典型值/最大值由 3500/3800mA 调整为 3400/3700mA; 工作电压的典型值/最大值由 2/2.4V 调整为 1.8/2.2V。 6: 发光区面积由 $150*10\mu m$ 调整为 $100*10\mu m$ 。 7: 谐振模式由 TM 膜调整为 TE 膜。 8: 增加管座上边缘至管帽顶端高度尺寸公差标注 (由以前的 5.0mm 调整为 5.0-5.2mm)。	降宽 2016.11.29	樊洋 2016.11.29	沈研峰 2016.11.29	2016.12.1

会签

编制	降宽	审核	樊洋	批准	沈研峰
编制部门	功率激光生产部		生效日期	2016.12.1	