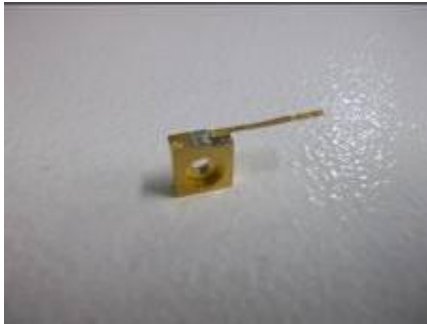




## 948nm 5000mW C-mount Laser Diode

Model: AL0948F5000C-09PS



### Features:

- Output power: 5000mw
- Efficient quantum well structure
- Center Wavelength: 948nm
- Package: C-mount
- Light beam shaping

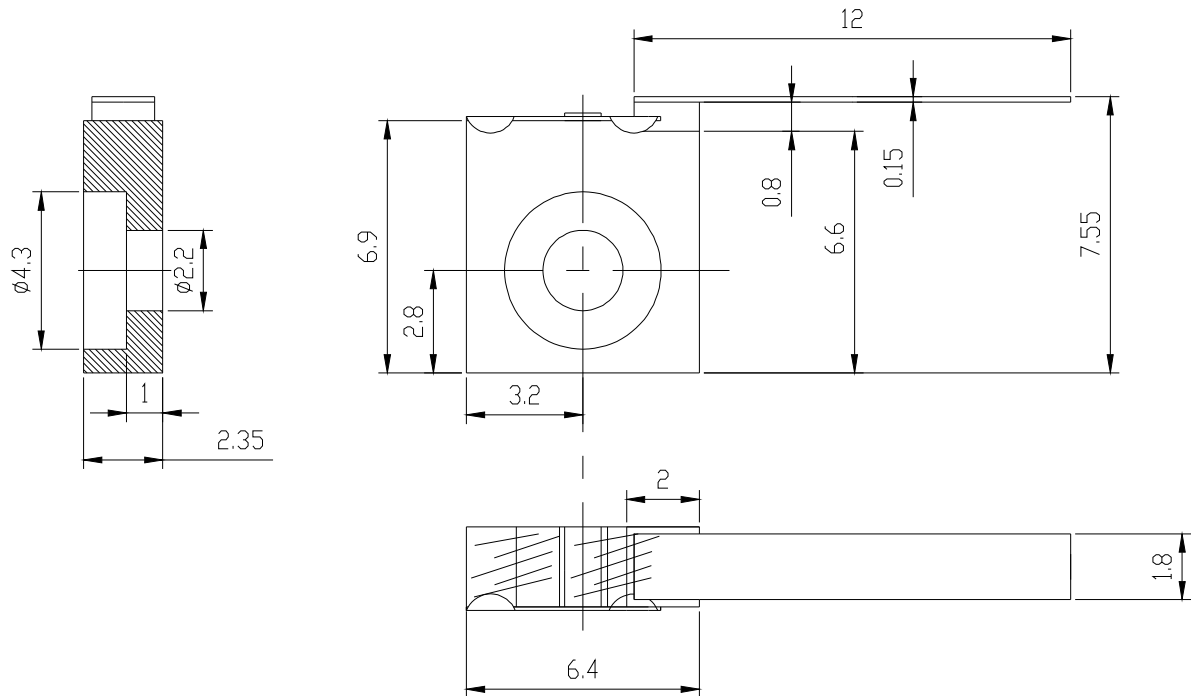
### Absolute Maximum Ratings( $T=25\text{ }^{\circ}\text{C}$ )

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

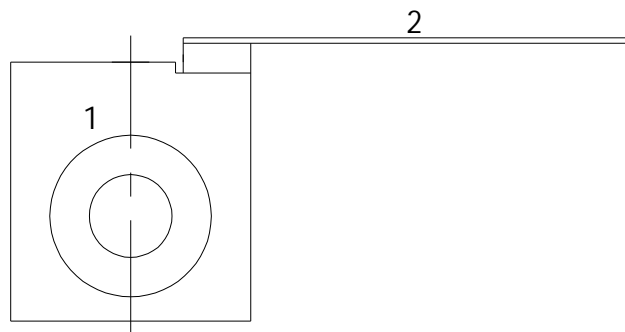
### Electro-Optical Characteristics( $T=25\text{ }^{\circ}\text{C}$ )

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Optical output power	$P_o$	mW	5000	-	-	$I_{op}=6000\text{mA}$
Center wavelength	$\lambda_c$	nm	943	948	953	$P_o=5000\text{mW}$
Spectral width	$\Delta\lambda$	nm	-	-	5	FWHM, $P_o=5000\text{mW}$
Threshold current	$I_{th}$	mA	-	600	800	-
Operating current	$I_{op}$	mA	-	5600	6000	-
Operating voltage	$V_f$	V	-	1.8	2.2	$P_o=5000\text{mW}$
Slope Efficiency	$\eta$	W/A	-	1	-	-
Beam divergence (fast axis collimated)	$\theta_{\perp} \times \theta_{//}$	$^{\circ}$	-	$10 \times 12$	-	FWHM
Beam divergence	$\theta_{\perp} \times \theta_{//}$	$^{\circ}$	-	$40 \times 12$	-	FWHM
Wavelength temperature coefficient	$d\lambda/dT$	nm/ $^{\circ}\text{C}$	-	0.3	-	-
Emitting area	-	$\mu\text{m}$	200 $\times$ 1			-
Polarization Ratio	-	-	TE			-

**Outline Drawings (in: mm)**



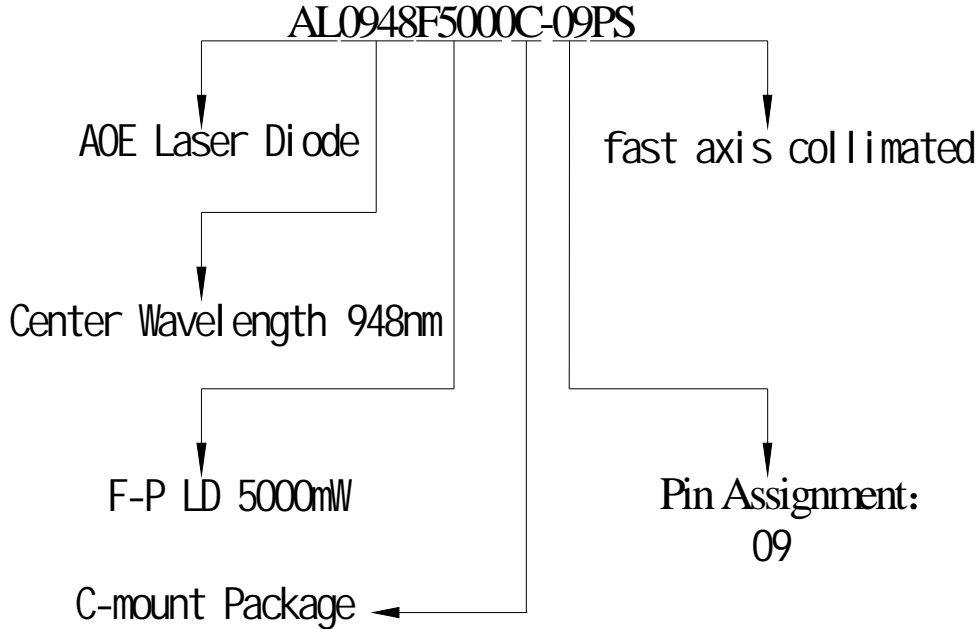
**Pin Assignment:**



Type \ PIN	1	2
09	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-12-2016

文件名称

948nm5000mW C-mount 封装  
激光器规格书

版次

1.0

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

会签

编制	陈亮	审核	樊洋	批准	沈国平
编制部门	功率激光生产部		生效日期	2016.12.1	