

*product offered by*



**LASER LAB SOURCE**  
marketplace for **Scientists & Engineers**

[contact@LaserLabSource.com](mailto:contact@LaserLabSource.com)

+1 406.219.1472

[www.LaserLabSource.com](http://www.LaserLabSource.com)



## PRODUCT DATA SHEET

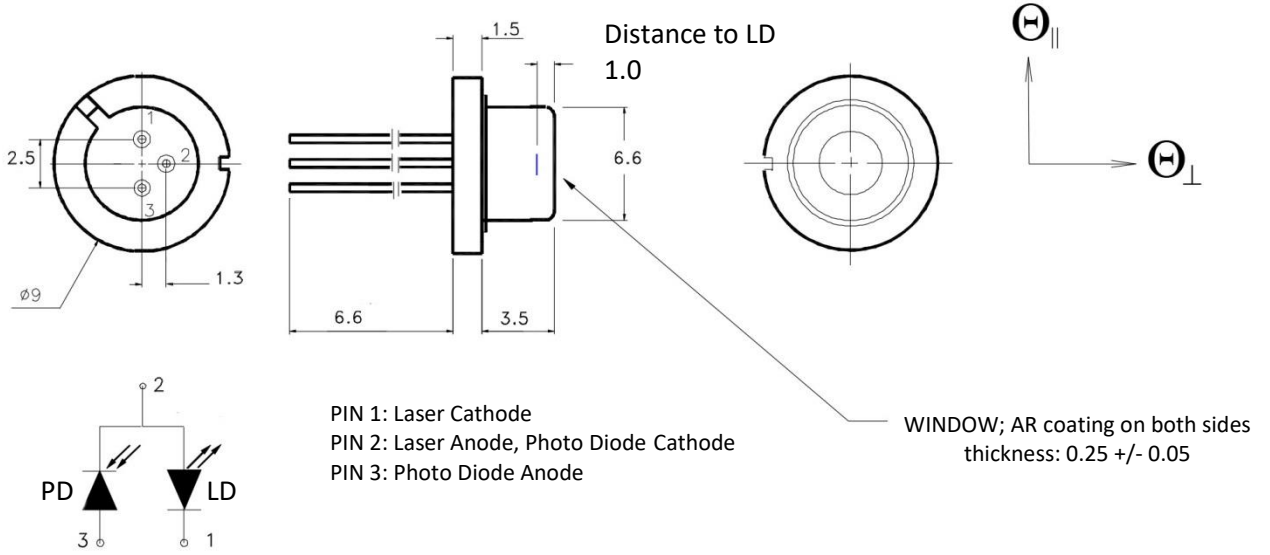
Laser Diode

Model FB-S1750-40SOT148

Specification	Symbol	Typical	Unit
<b>Laser Emitter</b>			
Peak Wavelength	$\lambda_{op}$	1750±20	nm
CW Optical Output Power	$P_{op}$	40	mW
Operation Current	$I_{op}$	<300	mA
Operation Voltage	$U_{Id}$	0.8±0.3	V
Threshold Current	$I_{th}$	<70	mA
Beam Divergence (FWHM)	$\theta_{  }$	10±2	degree
Beam Divergence (FWHM)	$\theta_{\perp}$	44±3	degree
Spectrum Half-Width (FWHM)	$\Delta\lambda$	<5	nm
Emitting Area	$W \times d$	6x1	$\mu\text{m} \times \mu\text{m}$
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	4	Å/degree
Operation Power Temperature Coefficient	$\Delta P/\Delta T$	0.2±0.05	mW/degree
Operation Current Temperature Coefficient	$\Delta I/\Delta T$	0.8±0.05	mA/degree
Mode Structure	SM	TE <sub>00</sub>	-
Operation Temperature	$T_{op}$	25	degree
Operation Temperature Range		-40... +50	degree
Storage Temperature Range		-40... +80	degree
Operation Mode	CW Pulse	Continuous Wave	-
<b>Photo Diode Monitor</b>			
Monitor Current		1-100	$\mu\text{A}$
PD Reverse Voltage		<5	V

*Note: To guarantee reliable operation of laser diode SOT-148 package must be mounted onto copper carrier with TEC (Peltier element) keeping constant temperature.*

Drawings:



**PRODUCT WARRANTY:**

This product is sold with a full one year warranty. The warranty includes all parts and labor. It is warranted to be free from defects in material and workmanship for a period of one year from the date of shipment. The warranty does not include damage to the product due to customer mishandling or use of the product outside of its specified maximum ratings.

**INSTALLATION SUPPORT OR TECHNICAL SUPPORT FOR THIS PRODUCT:**

**800-887-5065 extension 1**  
**[contact@laserdiodesource.com](mailto:contact@laserdiodesource.com)**



Part of the Laser Lab Source Group:  
[LaserLabSource.com](http://LaserLabSource.com)  
[LaserDiodeSource.com](http://LaserDiodeSource.com)  
[LaserDiodeControl.com](http://LaserDiodeControl.com)  
Laser Diode Technologies

Laser Lab Source Inc.  
1820 W. Lincoln Street  
Bozeman, MT USA 59715  
[contact@LaserDiodeSource.com](mailto:contact@LaserDiodeSource.com)  
[contact@LaserDiodeControl.com](mailto:contact@LaserDiodeControl.com)  
800-887-5065

800-887-5065