

## LASER DIODE FIDL-20S-760X

**FIDL-20S-760X** is 760nm AlGaAs/GaAs single quantum well structure fabricated by MOCVD semiconductor laser diode. Low threshold current and high slope efficiency contribute to low operating current enhancing reliability.

**FIDL-20S-760X** is a CW single mode injection semiconductor laser diode with built-in monitor photodiode to stabilize output power. Precise wavelength selection allows using the laser diode in spectroscopy equipment as well as in various opto-electronic systems.

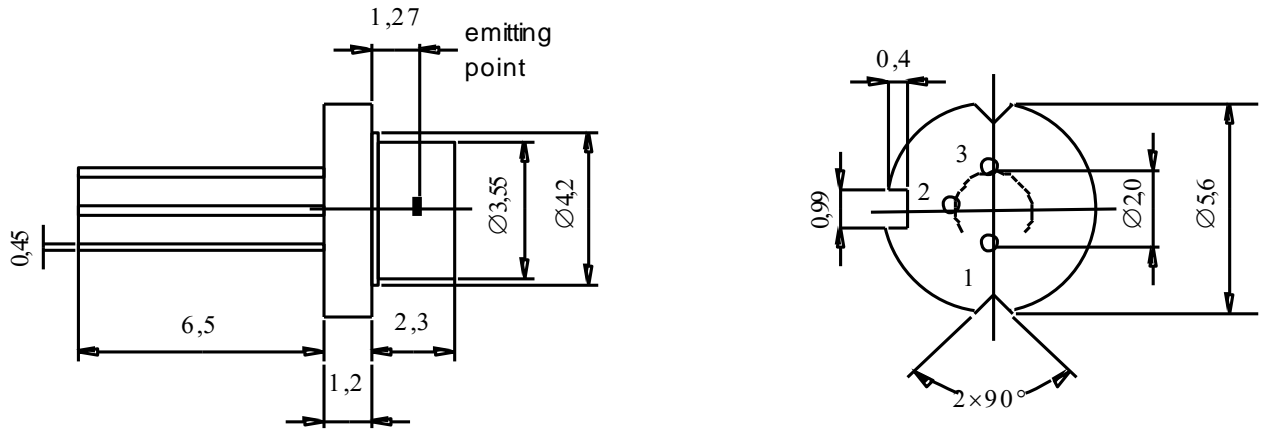
Optical and electrical characteristics (T = 25°C):

Operating parameters	Symbol	Min	Typ	Max	Unit
Optical output power	P <sub>out</sub>	-	20	22	mW
Lasing wavelength	$\lambda$	750	760	770	nm
Emitting area	W×H		3×1.5		$\mu\text{m}$
Threshold current	I <sub>th</sub>	-	35	40	mA
Forward current	I <sub>f</sub>	-	70	90	mA
Forward voltage	U <sub>f</sub>		2.0	2.4	V
Beam divergence parallel	$\Theta_{  }$	4	7	9	deg.
Beam divergence perpendicular	$\Theta_{\perp}$	30	40	45	deg.
Spectral width (FWHM)	$\Delta\lambda$	-	1.5	-	nm
Static alignment	$\Delta\alpha_{  } \times \Delta\alpha_{\perp}$	-	-	<±3	deg.
Positional accuracy	$\Delta X, \Delta Y, \Delta Z$	-	-	±100	$\mu\text{m}$
Mode structure		-	SM	-	-
Differential efficiency	dP <sub>o</sub> /dI <sub>op</sub>	0.5	0.7	0.8	mW/mA
Monitor current	I <sub>m</sub>	0.05	-	2.0	mA

### Additional information:

- - wavelength drift under temperature change <math>-<0.3\text{nm}/^{\circ}\text{C}</math>;
- - operating temperature - <math>-20^{\circ}\text{C}</math> <math>+40^{\circ}\text{C}</math>;
- - monitor diode operating voltage - <math>5\text{V}</math> +/- <math>0.5\text{V}</math>
- - astigmatism - <math><5\mu\text{m}</math>
- - wavelength tolerance: **X = A:** ±2nm; **B:** ±3nm; **C:** ±5nm; **D** ± 10nm;

## PACKAGE SPECIFICATION



Connection:

- 1 LD cathode
- 2 LD anode, PD cathode ("+" supply)(case)
- 3 PD anode ("- supply)

