

LASER DIODE FIDL-500M-840X

FIDL-500M-840X is AlGaAs/GaAs quantum well structure fabricated by MOCVD semiconductor laser diode. Low threshold current and high slope efficiency contribute to low operating current enhancing reliability.

FIDL-500M-840X is a CW multimode injection semiconductor laser diode with built-in monitor photodiode to stabilize output power. The laser diode is suitable for application in various opto-electronic systems.

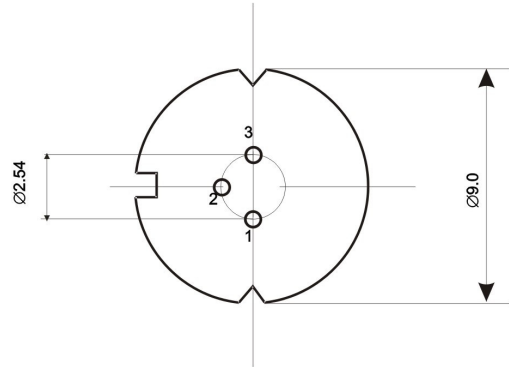
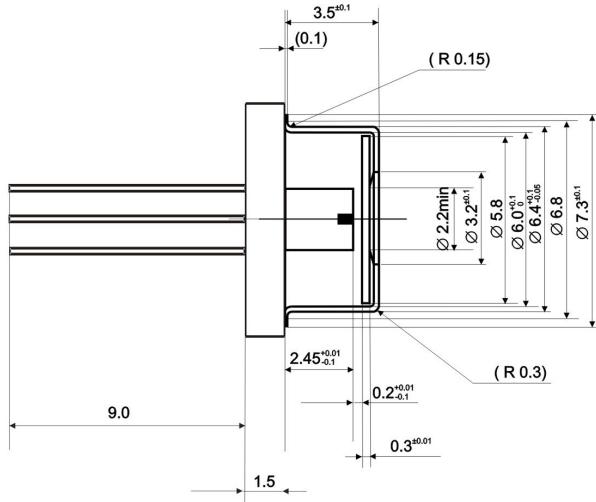
Optical and electrical characteristics (T = 25°C):

Operating parameters	Symbol	Min	Typ	Max	Unit
Optical output power	P _{out}	-	500	550	mW
Lasing wavelength	λ	830	840	850	nm
Emitting area	W×H		100×1.5		μm
Threshold current	I _{th}	-	250	300	mA
Forward current	I _f	-	700	900	mA
Forward voltage	U _f		2.25	2.4	V
Beam divergence parallel	Θ_{\parallel}	6	8	10	deg.
Beam divergence perpendicular	Θ_{\perp}	25	30	35	deg.
Spectral width (FWHM)	$\Delta\lambda$	-	3.0	-	nm
Static alignment	$\Delta\alpha_{\parallel} \times \Delta\alpha_{\perp}$	-	-	<±3	deg.
Positional accuracy	$\Delta X, \Delta Y, \Delta Z$	-	-	±200	μm
Mode structure		-	MM	-	-
Differential efficiency	dP _o /dI _{op}	0.5	0.7	0.8	mW/mA
Monitor photocurrent	I _m	0.1	2.0	10.0	mA

Additional information:

- - wavelength drift under temperature change - < 0.3nm/°C;
- - operating temperature- -20°C +50°C;
- - monitor diode operating voltage - 5V +/- 0.5V;
- - wavelength tolerance: **X = A:** ±2nm; **B:** ±3nm; **C:** ±5nm; **D** ± 10nm;

PACKAGE SPECIFICATION



Connection

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

