



## LASER DIODE FTED-840-150S-FP

**FTED-840-150S-FP** is a single transverse mode quantum-well Fabry-Perrot laser diode with 150 mW CW output power at 840nm. It is suitable for the use in various opto-electronic applications.

### FEATURES:

- High power
- Stable single transverse mode
- Wide temperature range -30° +55°C

### APPLICATIONS:

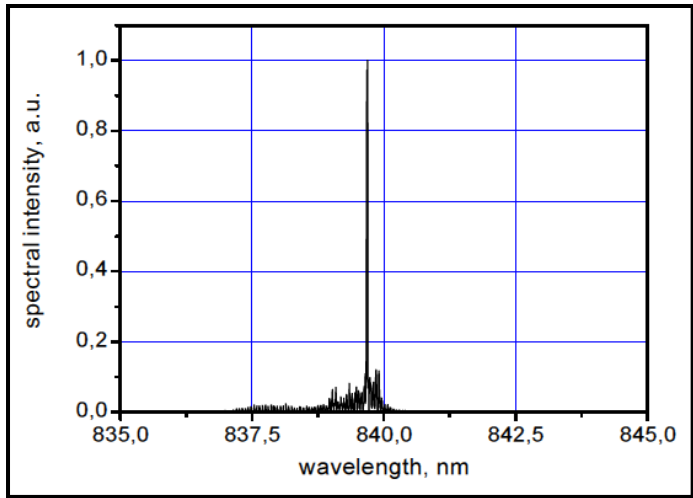
- Target designation
- Illumination
- Laser ranging
- Sensing
- Medical Applications
- Imaging

Optical and electrical characteristics (T = 25°C, P = 150mW):

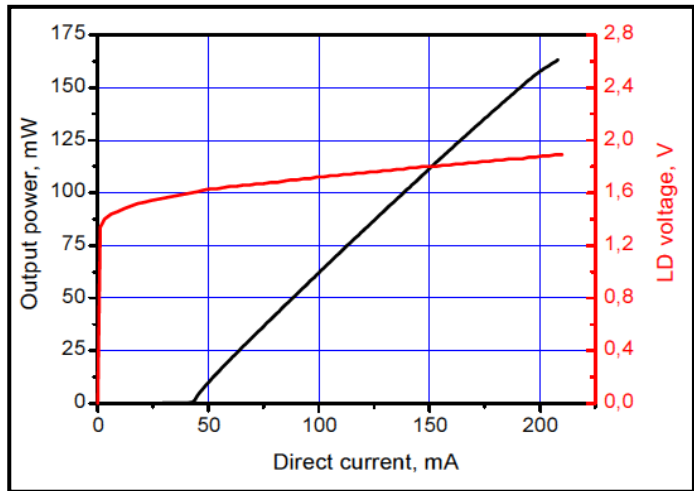
Operating Parameters	Symbol	Min	Typ	Max	Unit
Optical Power	$P_{out}$	-	-	200	mW
Kink-Free Power	$P_{KF}$	-	-	150	mW
Wavelength	$\lambda$	830	845	860	nm
Spectrum (10dB)	$\Delta\lambda_{10dB}$	-	1.5	3	nm
Threshold Current	$I_{th}$	-	50	70	mA
Forward Current	$I_f$	-	200	270	mA
Forward Voltage	$V_f$	-	2.1	2.8	V
Reverse Voltage	$V_r$	-	-	2.0	V
Slope Efficiency	$\Delta P/\Delta I$	-	0.9	-	W/A
Power Conversion Efficiency	$\eta$	-	35	-	%
Wavelength Shift over T	$D\lambda/dT$	-	0.25	-	nm/°C
Vertical Far Field (FWHM)	$\Theta_{\perp}$	20	25	30	°
Parallel Far Field (FWHM)	$\Theta_{\parallel}$	6	8	10	°
Operating Temperature		-30	-	+55	°C
Storage Temperature		-55	-	+85	°C
PD monitor current	$I_{PD}$	-	600	-	$\mu$ A
PD monitor voltage	$V_{PD}$	-	-	5.0	V
Chip location accuracy		-100	-	+100	$\mu$ m

**Available Package:** 9mm TO-can (optional TO8 can with internal cooler and thermistor)

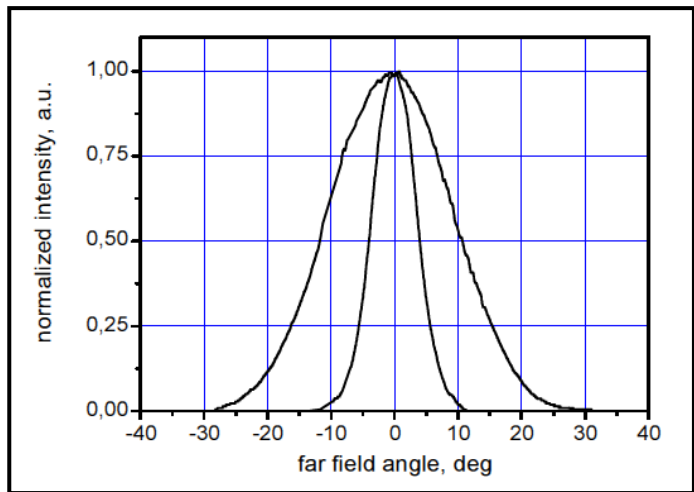
## TYPICAL PERFORMANCE



Spectrum

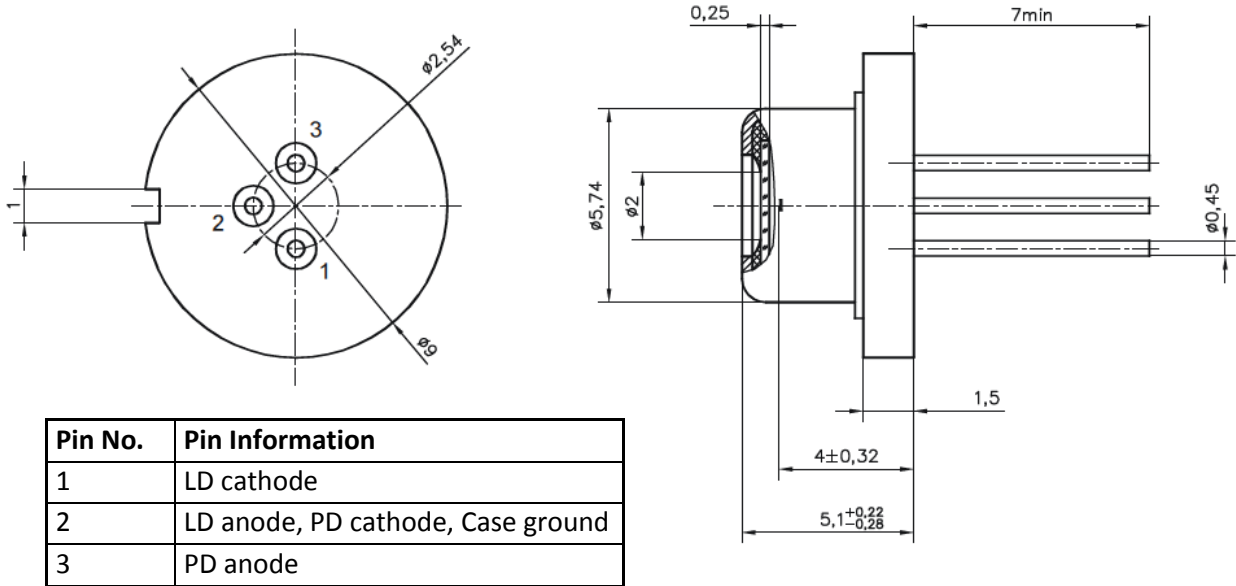


Current vs. Power / Voltage



Far Field

**PACKAGE DRAWING**



All dimensions in mm