

LASER DIODE FOLD-689-45S-VBG

FOLD-689-45S-VBG is a single mode semiconductor laser diode with 45mW CW output power at 689nm. Due to the integrated VBG the wavelength is fixed and the spectral width is very narrow. It is suitable for the use in various opto-electronic applications.

APPLICATIONS:

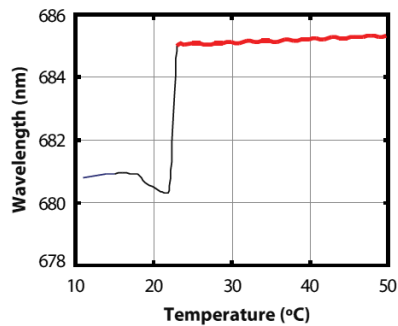
- Raman Spectroscopy
- Metrology
- Bio-Instrumentation
- Graphic Arts
- Sensing
- Analytical Instrumentation

Optical and electrical characteristics (T = 25°C, P = 45mW):

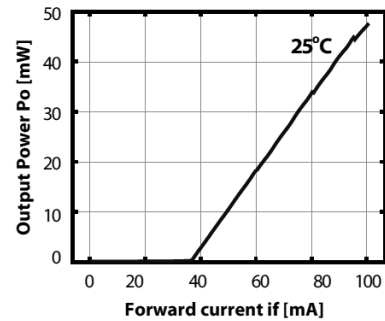
Operating Parameters	Symbol	Min	Typ	Max	Unit
Optical Power	P _{out}	-	-	45	mW
Wavelength	λ	688	689	690	nm
Line Width	Δλ	-	100	-	MHz
Threshold Current	I _{th}	-	30	60	mA
Forward Current	I _f	-	75	120	mA
Forward Voltage	V _f	-	2.3	3.0	V
Reverse Voltage	V _r	-	-	2	V
Monitoring Output Current	I _m	0.08	0.15	0.35	mA
Slope Efficiency	ΔP/ΔI	-	1.1	-	mW/mA
Beam Divergence, Perpendic.	Θ _⊥	18	21	25	°
Beam Divergence, Parallel	Θ _∥	7	9	12	°
Operating Temperature	T _{op}	0	-	50	°C
Central Stabilized Temperature	T _c	15	-	40	°C
Stabilized Temperature Range	T _r	10	15	-	°C
Storage Temperature	T _s	-10	-	60	°C
Emitter Size	E _s	2 x 3			μm
Coherence Length	> 2m				
Polarization	100:1 (TE)				

PERFORMANCE AND PACKAGE SPECIFICATION

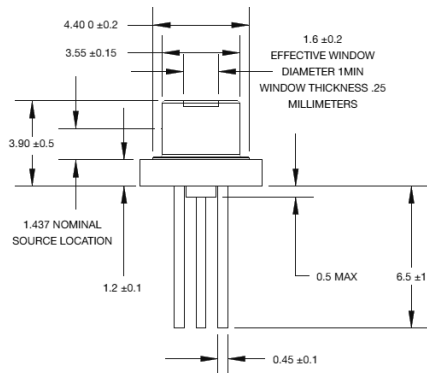
Stabilized Temperature Range



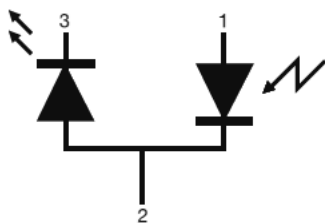
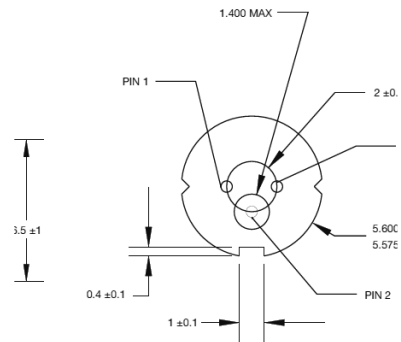
Output Power vs Forward Current (Typical)



Side View



Bottom View



Pinout	
1	PD Anode
2	Case
3	LD Cathode