

LASER DIODE FOLD-638-20S-VBG

FOLD-638-20S-VBG is a single mode semiconductor laser diode with 20mW CW output power at 638nm. 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:

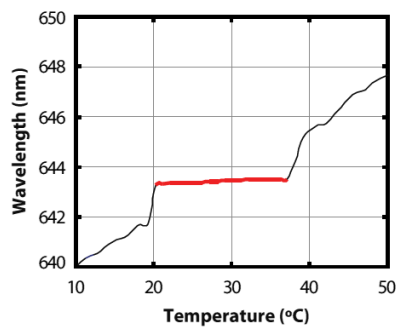
- HeNe Replacement
- Raman Spectroscopy
- Metrology
- Bio-Instrumentation
- Graphic Arts
- Sensing
- Analytical Instrumentation

Optical and electrical characteristics (T = 25°C, P = 20mW):

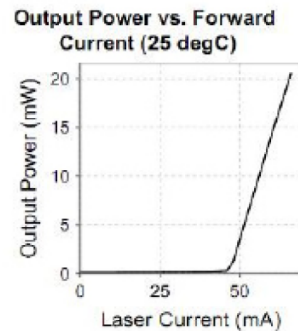
Operating Parameters	Symbol	Min	Typ	Max	Unit
Optical Power	P_{out}	-	-	20	mW
Wavelength	λ	637	638	639	nm
Line Width	$\Delta\lambda$	-	300	-	MHz
Threshold Current	I_{th}	-	45	60	mA
Forward Current	I_f	-	70	100	mA
Forward Voltage	V_f	-	2.4	2.6	V
Reverse Voltage	V_r	-	-	2	V
Photodiode Reverse Voltage	V_{rp}	-	-	30	V
Monitoring Output Current	I_m	0.07	0.15	0.2	mA
Slope Efficiency	$\Delta P/\Delta I$	-	1.0	-	mW/mA
Beam Divergence, Perpendic.	$\Theta_{\perp}$	16	21	24	°
Beam Divergence, Parallel	$\Theta_{\parallel}$	7	10	13	°
Operating Temperature	T_{op}	-10	-	50	°C
Central Stabilized Temperature	T_c	15	-	45	°C
Stabilized Temperature Range	T_r	10	14	-	°C
Storage Temperature	T_s	-40	-	80	°C
Coherence Length	> 0.5m				
Polarization	60:1 (TM)				

PERFORMANCE AND PACKAGE SPECIFICATION

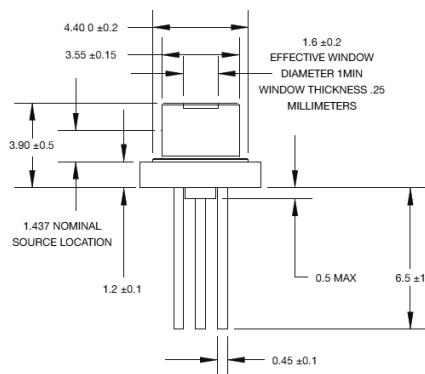
Stabilized Temperature Range



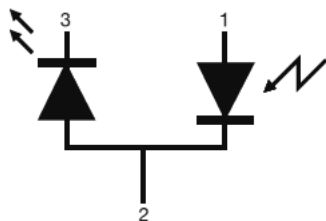
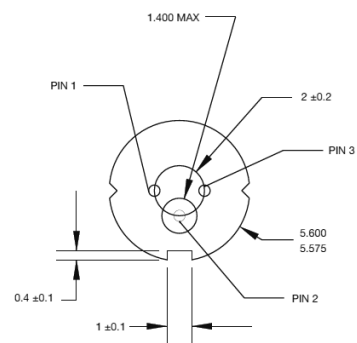
Output Power vs Forward Current (Typical)



Side View



Bottom View



Pinout	
1	PD Anode
2	Case
3	LD Cathode