

761 nm DFB Laser Diode

SAR-761-DFB

Description

The SAR-761-DFB is single wavelength DFB laser intended for sensing and metrology. The precise specified wavelength can be obtained by temperature or current tuning.

Absolute maximum ratings

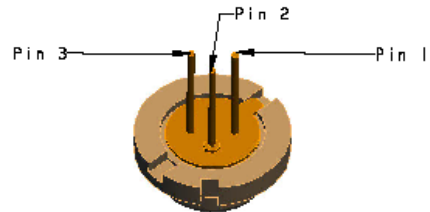
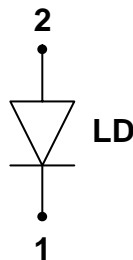
Parameter	Rating
Operating temperature	0 to 50 °C (15 to 50 °C without cap)
Laser diode forward current	150 mA
Laser diode reverse voltage	-2.5 V



CAUTION: THESE ITEMS ARE SUSCEPTIBLE TO BREAKDOWN RESULTING FROM ELECTROSTATIC DISCHARGE. EVERY PRECAUTION SHOULD BE TAKEN DURING PARTS HANDLING, INSTALLING, AND TESTING TO PREVENT STATIC CHARGE BUILDUPS. ALL LEADS/PADS SHOULD BE SHORTED TOGETHER DURING HANDLING. OPERATOR AND EQUIPMENT SHOULD BE GROUNDING DURING INSTALLATION.

Pinout

Number	Function
1	Laser Cathode
2	Laser Anode and Photodiode Cathode
3	Photodiode Anode



Characteristics

Parameter	Condition	Symbol	Units	Min	Typ	Max
Operating current*		I_o	mA		60	100
Operating temperature*		T_o	°C	20		40
Vacuum* wavelength	T_o, I_o	λ	nm		761.0	
Output power	T_o, I_o	P	mW	10		
Threshold current	T_o	I_{th}	mA			50
Forward Voltage	T_o, I_o	V				2.5
Side mode Suppression	T_o, I_o	SMSR	dB	35		
Current Tuning		$d\lambda/dI$	nm/mA		0.009	
Temperature Tuning		$d\lambda/dT$	nm/°C		0.064	
Beam divergence-slow (FWHM)		Φ_H	degrees		18	
Beam divergence-fast (FWHM)		Φ_V	degrees		48	

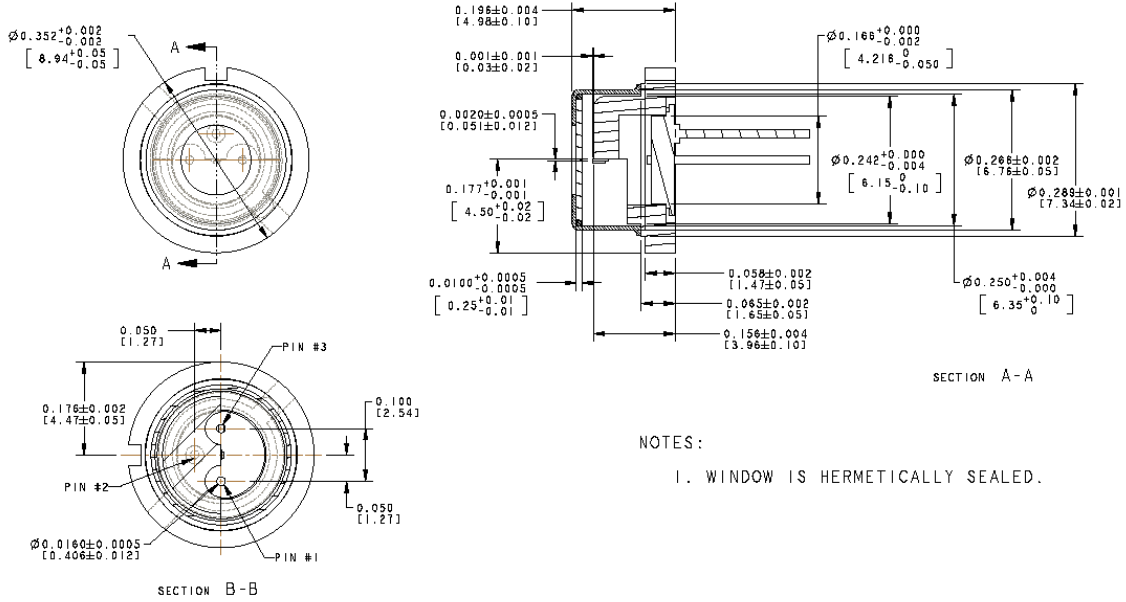
*The target wavelength can be achieved at the specified operating current in the specified temperature range.

T_o and I_o are temperature and current for which the specified wavelength is achieved.

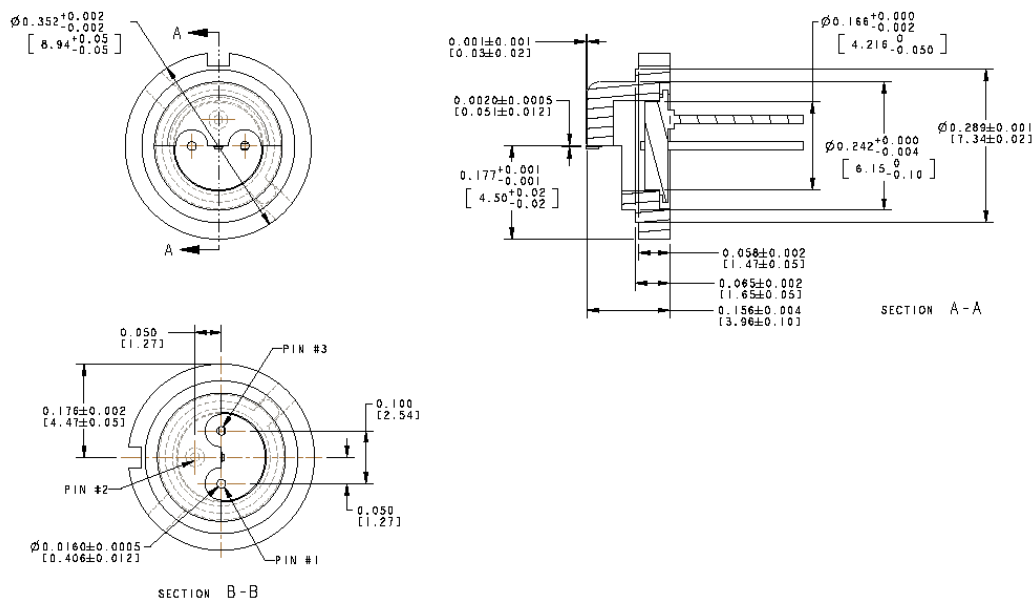


Diagram*

With hermetically sealed cap:



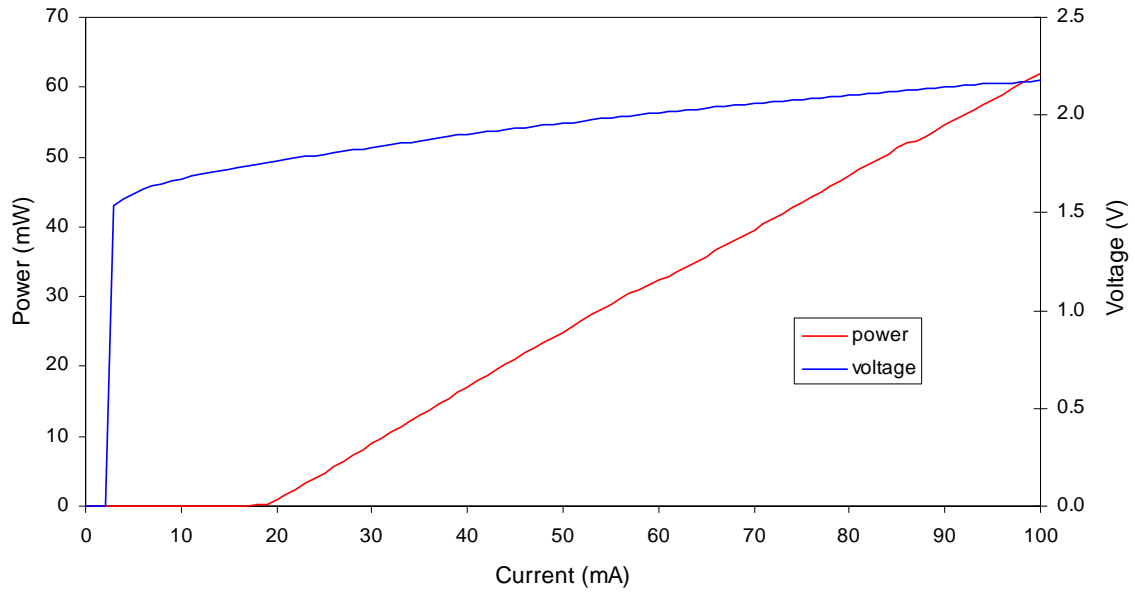
Without cap:



* Dimensions are in inches

Representative Data

SAR-761-DFB at 20C



SAR-761-DFB at 20C and 50 mA

