

Block-type 200mW High Power Laser Diode

Description

The SLD302B is a high power laser diode mounted on a $3 \times 3 \times 5\text{mm}$ Copper block. It is ideal for applications which require a minimal distance between the laser facet and external optical parts.

Features

- Compact size $3 \times 3 \times 5\text{mm}$ block
- High power output $P_o = 200\text{mW}$
- Hole for thermistor

Applications

- Solid state laser excitation
- Medical use

Structure

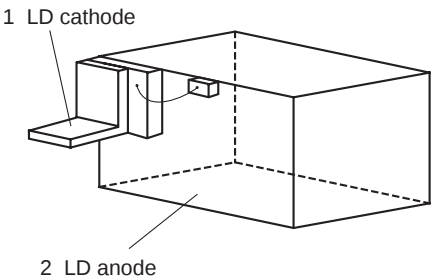
GaAlAs double hetero-type laser diode

Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

• Optical power output	P_o	200	mW
• Recommended optical power output	P_o	180	mW
• Reverse voltage	V_R LD	2	V
• Operating temperature	T_{opr}	-10 to $+50$	$^\circ\text{C}$
• Storage temperature	T_{stg}	-40 to $+85$	$^\circ\text{C}$

Pin Configuration

No.	Function
1	LD cathode
2	LD anode



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Electrical and Optical Characteristics

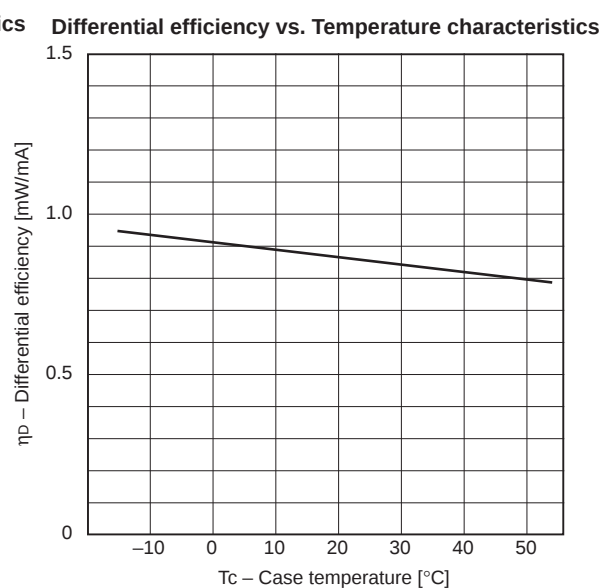
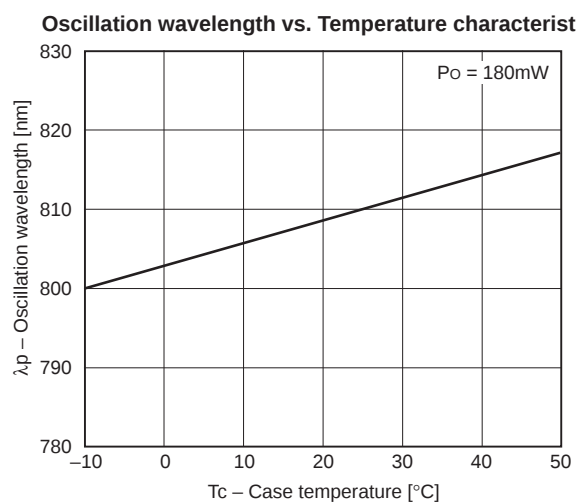
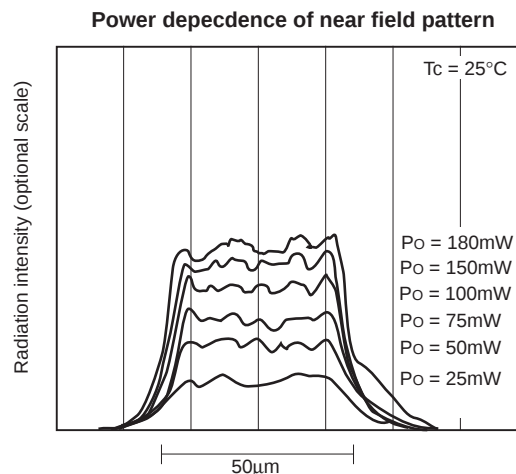
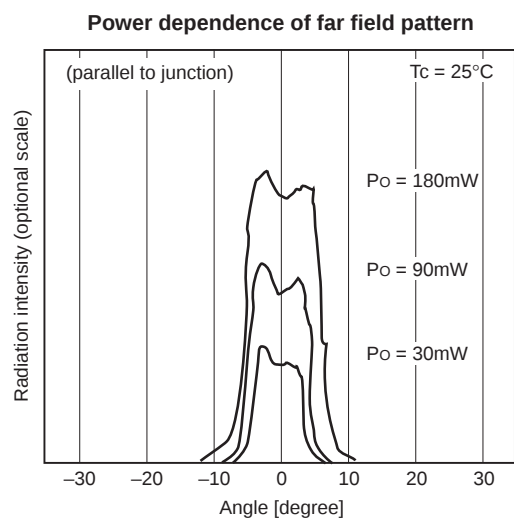
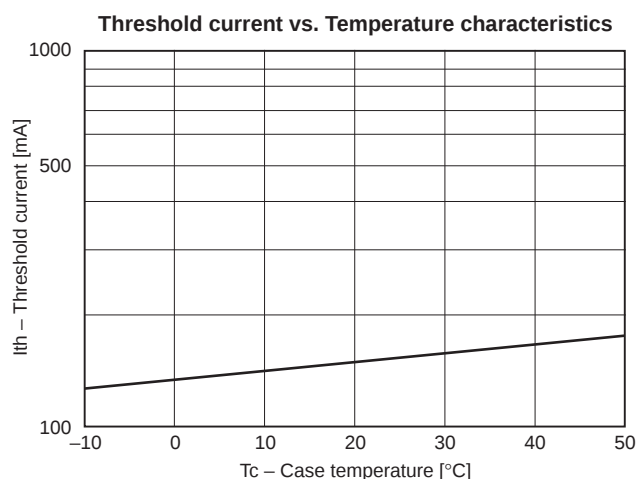
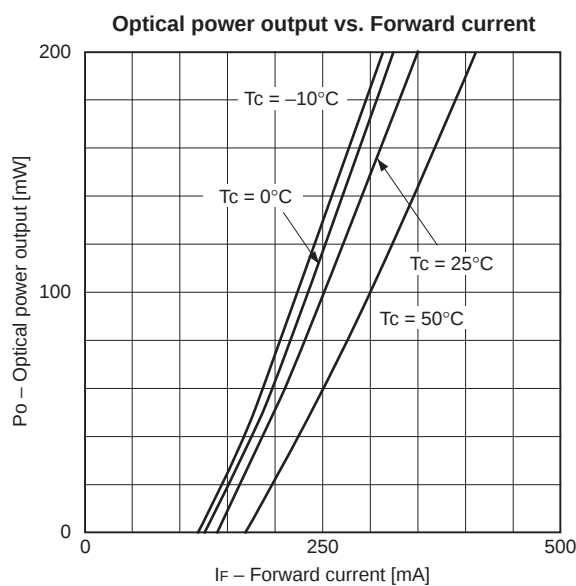
(T_c = 25°C)

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current		I _{th}			150	200	mA
Operating current		I _{op}	P _O = 180mW		400	500	mA
Operating voltage		V _{op}	P _O = 180mW		1.9	3.0	V
Wavelength		λ _p	P _O = 180mW	770		840	nm
Radiation angle (F. W. H. M. *)	Perpendicular to junction	θ _⊥	P _O = 180mW		28	40	degree
	Parallel to junction	θ _{//}			12	17	
Positional accuracy	Position	ΔX	P _O = 180mW			±300	μm
		ΔY, ΔZ				±100	
	Angle	Δφ _⊥				±3	degree
Differential efficiency		η _D	P _O = 180mW	0.5	0.8		mW/mA

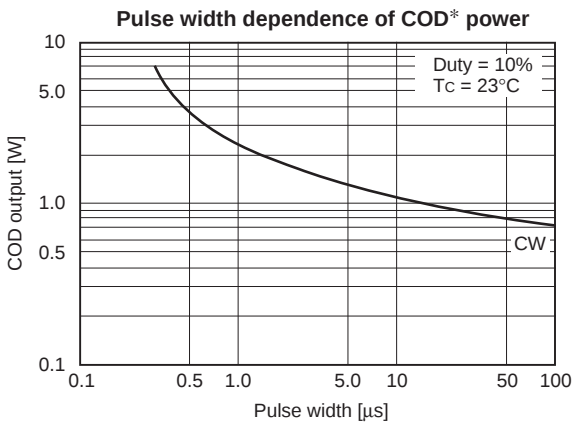
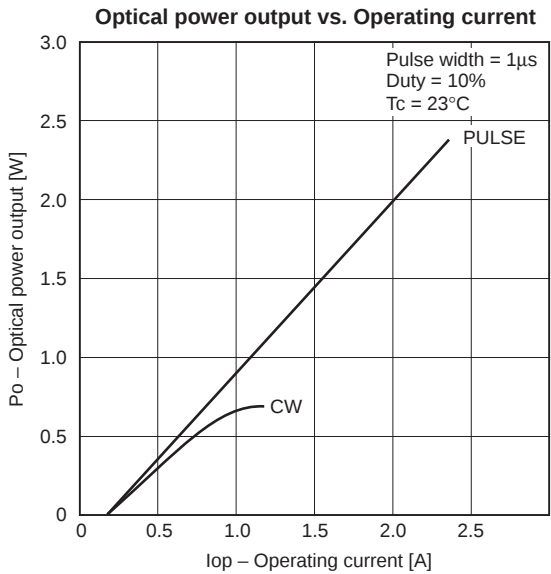
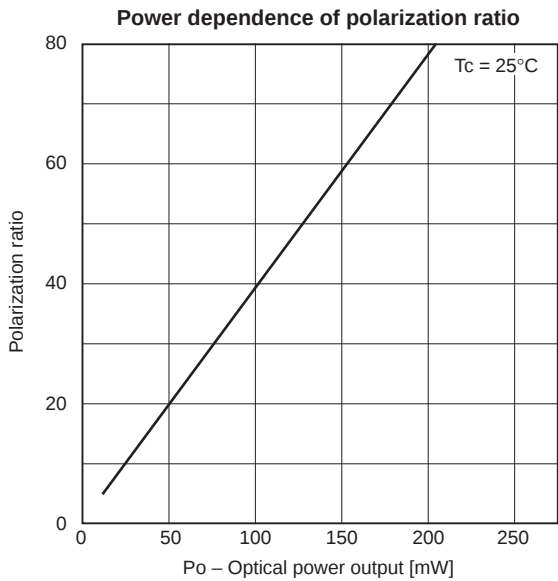
* F. W. H. M. : Full Width at Half Maximum

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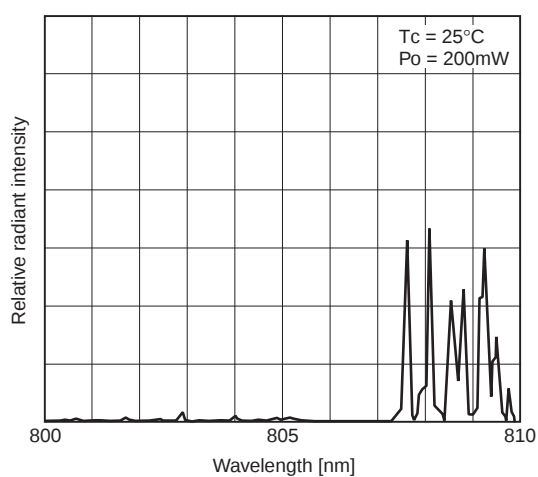
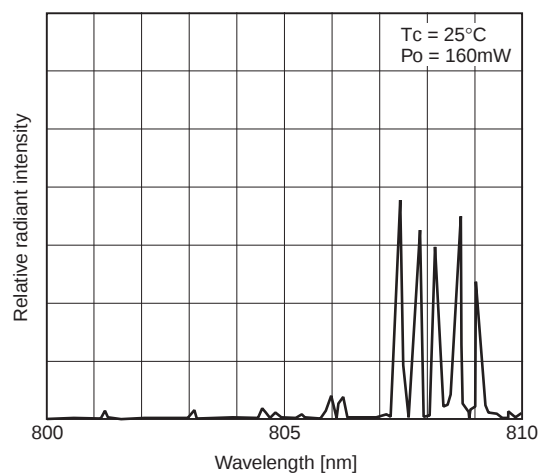
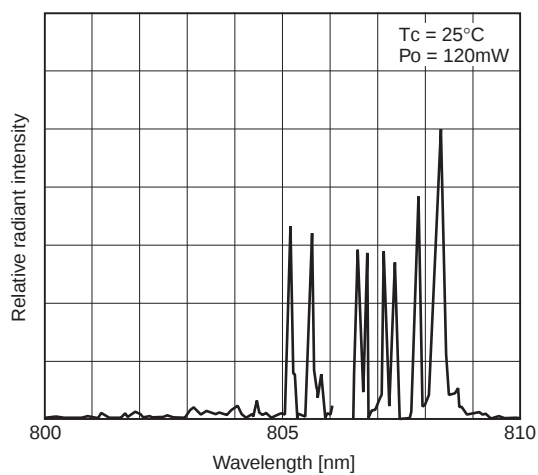
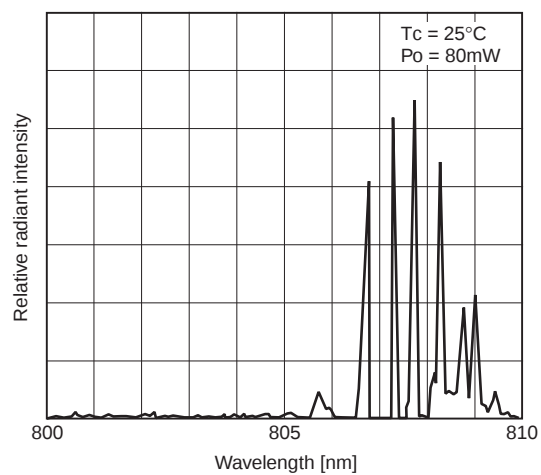
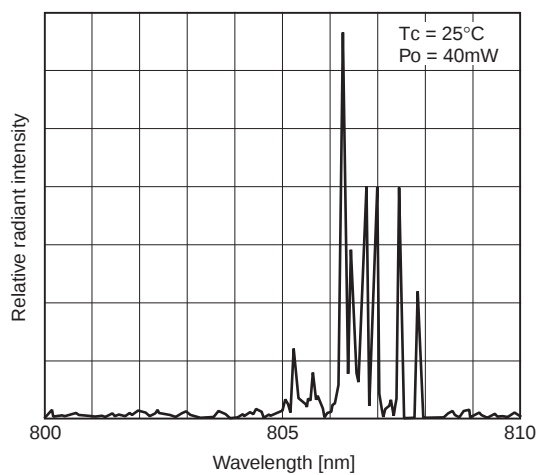
Example of Representative Characteristics

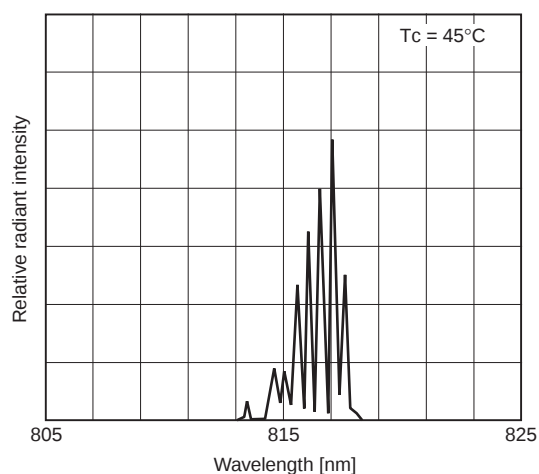
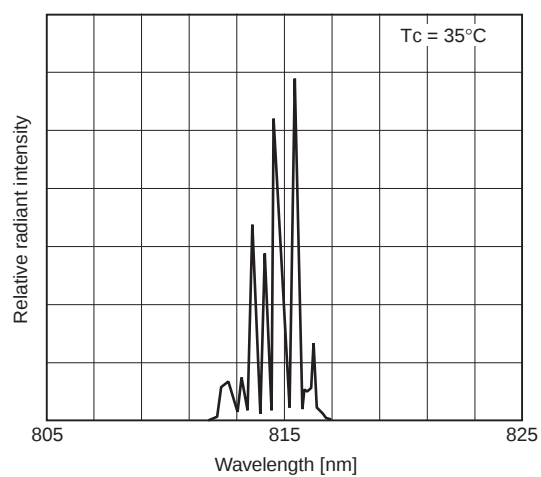
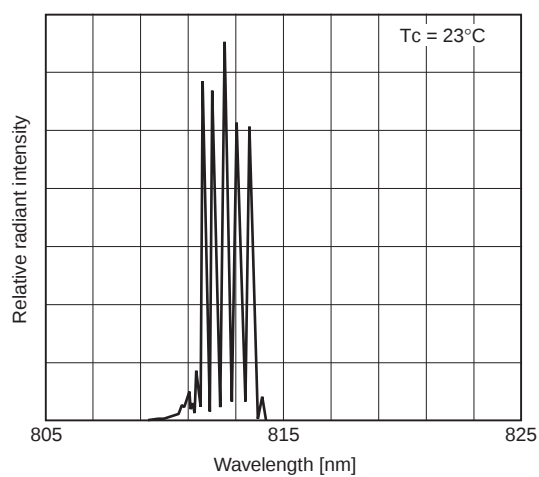
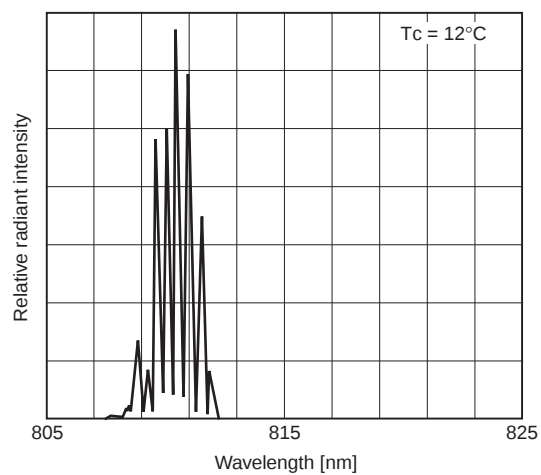
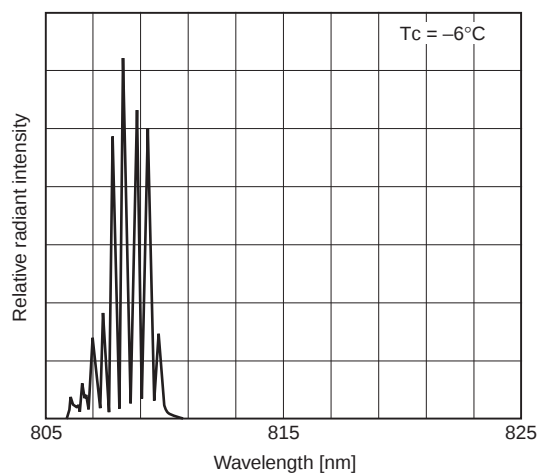


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* COD (Catastrophic Optical Damage)

[查询"SLD302B"供应商](#)**Power Dependence of Wavelength**

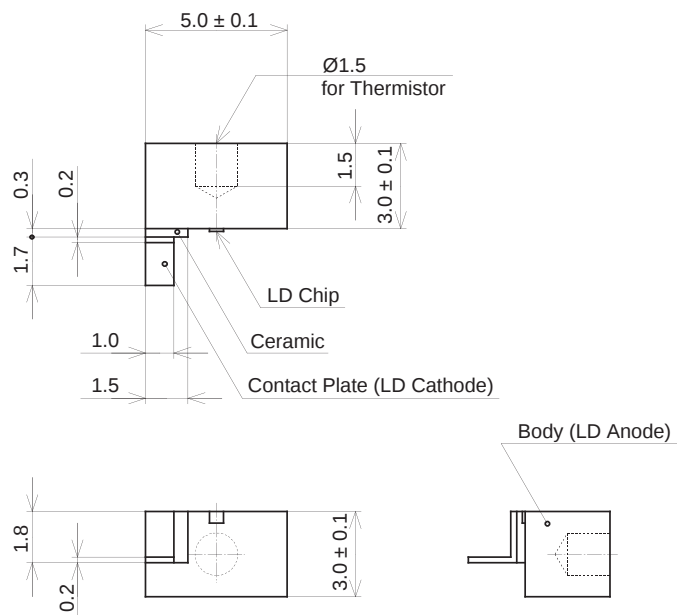
[查询"SLD302B"供应商](#)**Temperature Dependence of Wavelength ($P_O = 180\text{mW}$)**

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Package Outline

Unit: mm

M – 261



SONY CODE	M-261
EIAJ CODE	
JEDEC CODE	

PACKAGE STRUCTURE

PACKAGE WEIGHT	1g
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