

**SONY****SLU301VR****80/70mW High Power Laser Diode with a Detachable Fiber T-41-05****Description**

SLU301VR is a high power laser diode based on the SLD301V with a detachable fiber.

Direct coupling to a fiber having an FC connector is possible without any optical adjustment.

**Features**

- Detachable fiber
- Built-in photo diode

**Application**

- Solid state laser pumping
- Medical uses

**Structure**

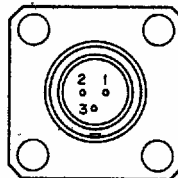
GaAlAs double hetero-type laser diode

**Absolute Maximum Ratings (T<sub>c</sub> = 25°C)**

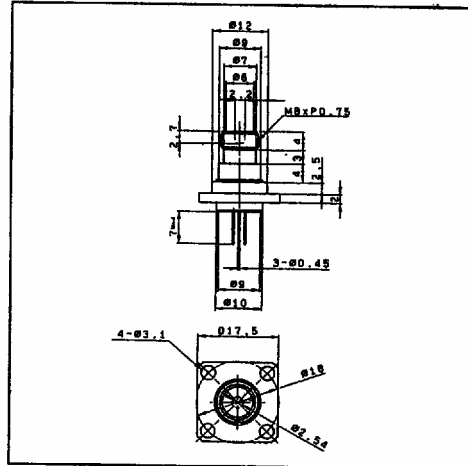
		(Typ.)		(Option)	
• Radiant power output	P <sub>o</sub>	80	mW	70	mW
• Recommended radiant power output	P <sub>o</sub>	72	mW	63	mW
• Reverse voltage	V <sub>R</sub> LD	2	V	2	V
	PD	15	V	15	V
• Operating temperature	T <sub>opr</sub>	-10 to +50	°C	-10 to +50	°C
• Storage temperature	T <sub>stg</sub>	-40 to +85	°C	-40 to +85	°C

**Pin Configuration**

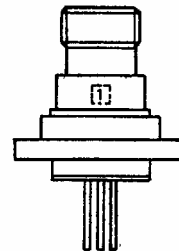
No.	Function
1	LD cathode
2	LD anode
3	COMMON

**Bottom View****Package Outline**

Unit : mm



	(Typ.)	(Option)
GI fiber		GI fiber
Core dia. 200 μm		Core dia. 100 μm
NA = 0.2		NA = 0.2
L = 2m		L = 2m

**Mark**

**Electrical · Optical Characteristics. (Tc = 25 °C)**

Item	Symbol	Condition*1	Min.	Typ.	Max.	Unit
Threshold current	I <sub>th</sub>			150		mA
Operating current	I <sub>op</sub>	a, b		300		mA
Operating voltage	V <sub>op</sub>	a, b		1.9		V
Wavelength*2	λ <sub>p</sub>	a, b	770		840	nm
Radiation angle*3 (F.W.H.M)	X	a		10		degree
		b		10		
	Y	a		15		
		b		15		
Monitor current	I <sub>mon</sub>	a, b V <sub>R</sub> = 10V		0.15		mA

**Note)**

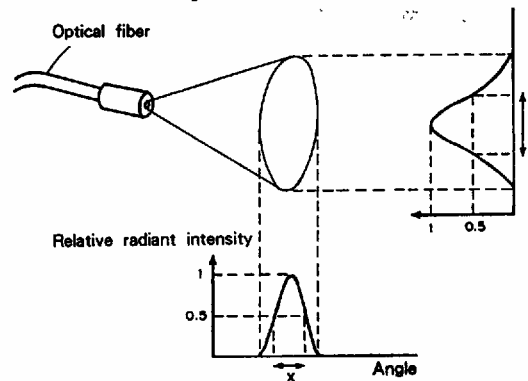
- \*1 a : P<sub>o</sub> = 72mW (Using standard fiber)
- b : P<sub>o</sub> = 63mW (Using optional fiber)

**\*2 Classification of wavelength**

Type	Wavelength (nm)
SLU301VR-1	785 ± 15
SLU301VR-2	810 ± 10
SLU301VR-3	830 ± 10

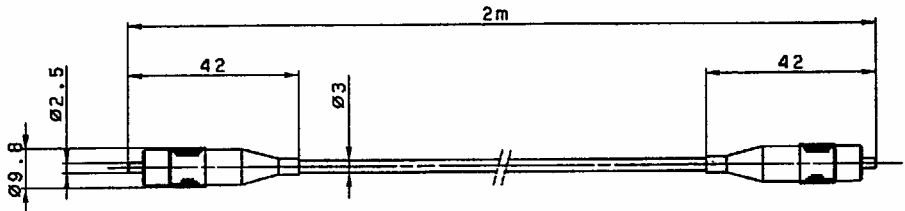
Type	Wavelength (nm)
SLU301VR-21	798 ± 3
24	807 ± 3
25	810 ± 3

**\*3 Radiation angle**



- X : F.W.H.M of radiation beam in the narrow direction.
- Y : F.W.H.M of radiation beam in the wide direction.

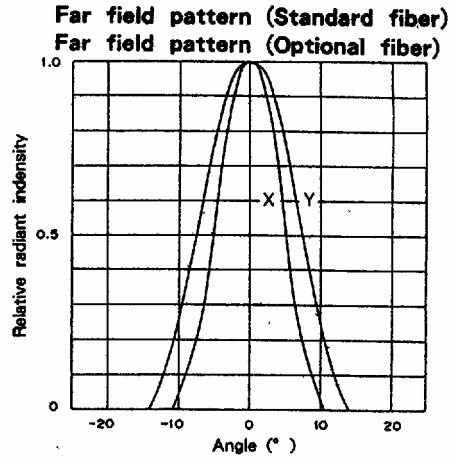
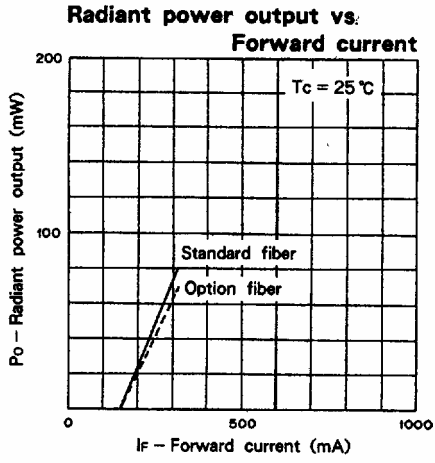
**Fiber Package Outline**



Unit:mm

Typical Characteristics ( $T_c = 25^\circ\text{C}$ )

1-41-00



## How to order the SLU300 series

T-41-05

When ordering please be sure to specify the required wavelength and type of optical fiber according to the below specifications.

SLU     -   -

(1) (2) (3) (4)

- |                         |                    |
|-------------------------|--------------------|
| (1) LD chip             | 301 to 304         |
| (2) Package             | VR, XR             |
| (3) Wavelength category | 1 to 3, 21, 24, 25 |
| (4) Optical fiber       | 01 to 04           |

### Combination of LD and Optical fiber

LD chip \ Optical fiber	01	02	03	04
301	○	○	×	×
302	○	○	×	×
303	×	×	○	○
304	×	×	○	○

01, 03 : Standard fiber  
02, 04 : Option fiber

○ : Applicable  
× : Not applicable

### Optical fiber specification

Code \ Item	Core dia. (μm)	NA	Length (m)
01	200	0.2	2
02	100	0.2	2
03	400	0.2	2
04	230	0.3	2

### Example

For the purchase of SLU304XR (rank 25) with optical fiber of 400 μm core diameter

• SLU304XR - 25 - 03