

# LNCR01PS

## Red Light Semiconductor Laser

### Features

- High output operations with oscillating wavelength of 685 nm : 35 mW
- Low threshold current
- Stable single horizontal mode oscillation
- Low astigmatic difference facilitates good concentrated light spot production

### Applications

- Optical disk memory (write and read)
- Optical measuring equipment

### Absolute Maximum Ratings (Ta = 25°C)

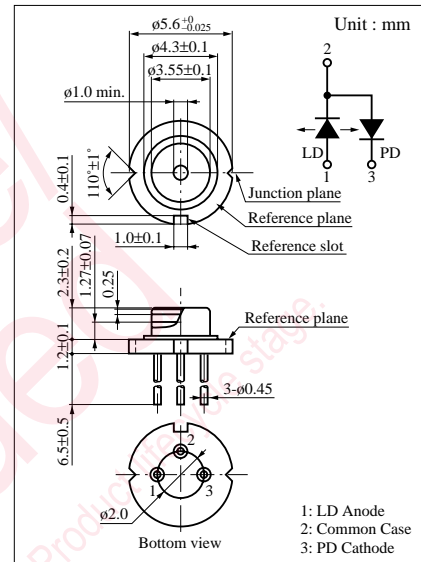
Parameter	Symbol	Rated	Unit
Radiant power	$P_O$	35	mW
Reverse voltage	Laser $V_R$	2	V
	PIN $V_R$ (PIN)	30	V
Power dissipation	$P_d$ (PIN)	35	mW
Operating ambient temperature	$T_{opr}$	-10 to +60	°C
Storage temperature	$T_{stg}$	-40 to +85	°C

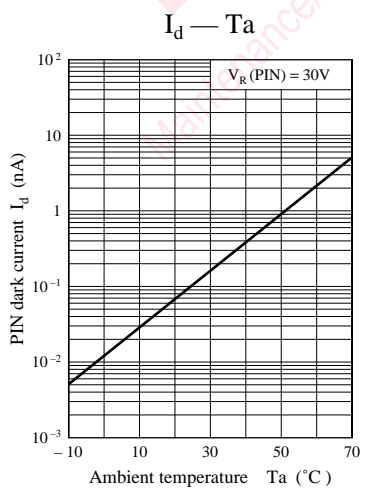
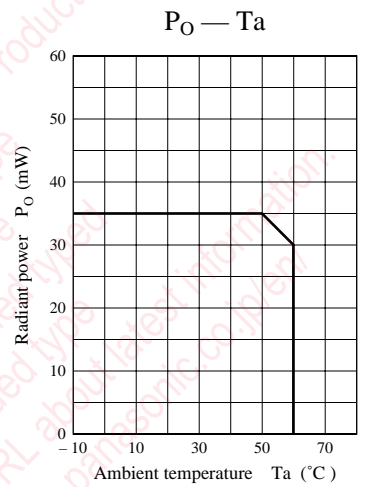
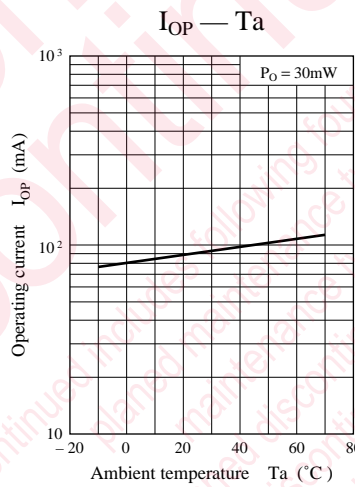
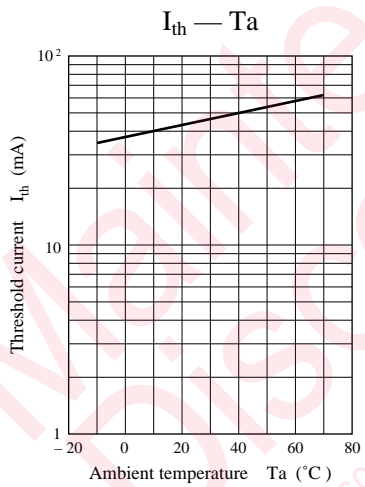
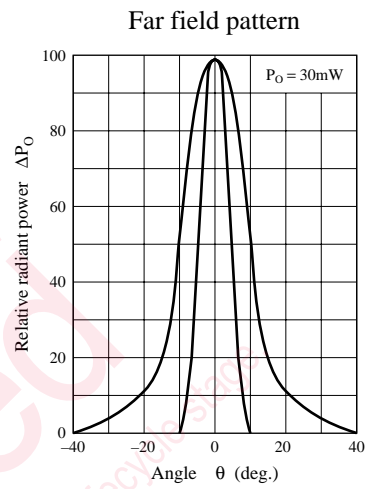
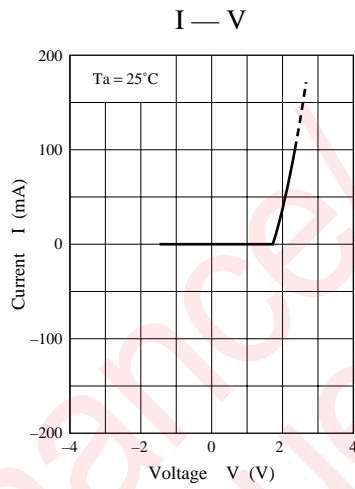
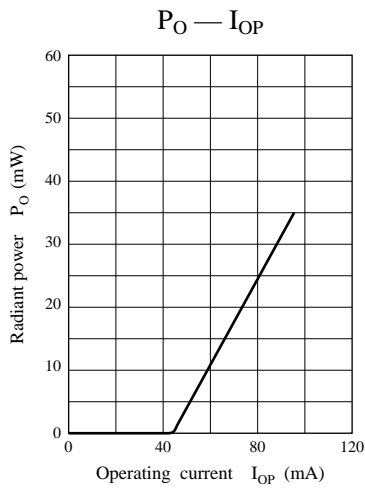
### Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Threshold current	$I_{th}$	CW	30	45	60	mA
Operating current	$I_{OP}$	CW $P_O = 30mW$	50	80	110	mA
Operating voltage	$V_{OP}$	CW $P_O = 30mW$	2.0	2.6	4.0	V
Oscillation wavelength	$\lambda_L^{*2}$	CW $P_O = 30mW$	670	685	695	nm
Radiation angle	Horizontal direction $\theta_{//}^{*1}$	CW $P_O = 30mW$	7	8.5	10	deg.
	Vertical direction $\theta_{\perp}^{*1}$	CW $P_O = 30mW$	18	21	25	deg.
PIN photo current	$I_P$	CW $P_O = 30mW$ , $V_R$ (PIN) = 5V	0.1	0.4	0.6	mA
Reverse current (DC)	$I_R$	$V_R$ (PIN) = 15V			0.1	$\mu A$
Optical axis accuracy	X direction $\theta_X$	CW $P_O = 30mW$	-2.0		+2.0	deg.
	Y direction $\theta_Y$	CW $P_O = 30mW$	-3.0		+3.0	deg.

\*1 The radiation angle is indicated as half full angle.

\*2 Sampling controls on n = 10 per lot





# Caution for Safety

 **DANGER**

■ **This product contains Gallium Arsenide (GaAs).**

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

■ **Do not touch or look into the laser beam directly.**

The laser beam may cause injury to the eye or skin, or loss of eyesight.

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