

LNC701PS

GaAlAs Semiconductor Laser

■ Features

- Low threshold current
- Stable single horizontal mode oscillation
- Long lifetime, high reliability

■ Applications

- Optical data processing devices
- Optical disk memory drive
- Optical measuring equipment

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	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)	100	mW	
Operating ambient temperature	T _{opr}	-10 to +60	°C	
Storage temperature	T _{stg}	-40 to +80	°C	

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

Parameter	Symbol	Conditions	min	typ	max	Unit	
Threshold current	I _{th}	CW	10	20	30	mA	
Operating current	I _{OP}	CW P _O = 30mW	30	55	70	mA	
Operating voltage	V _{OP}	CW P _O = 30mW		2.0	2.5	V	
Oscillation wavelength	λ _L	CW P _O = 30mW	780	785	790	nm	
Radiation angle	Horizontal direction ^{*1}	θ _{//}	CW P _O = 30mW	8.5	10	11.5	deg.
	Vertical direction ^{*1}	θ _⊥	CW P _O = 30mW	23	25	28	deg.
Differential efficiency	η	CW P _O = 3 - 30mW	0.8	1.0	1.2		
PIN photo current	I _P	CW P _O = 30mW, V _R (PIN) = 5V		0.3		mA	
Reverse current (DC)	I _R	V _R (PIN) = 15V			0.1	μA	
Optical axis accuracy	X direction	θ _X	CW P _O = 30mW	-2.0		+2.0	deg.
	Y direction	θ _Y	CW P _O = 30mW	-3.0		+3.0	deg.

^{*1} The radiation angle is indicated as the full angle at half maximum.



