

LNC705PS

GaAlAs Semiconductor Laser

Features

- Low threshold current
- Stable single horizontal mode oscillation
- Long lifetime, high reliability
- High optical power output : 50mW

Applications

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

Absolute Maximum Ratings (Ta = 25°C)

Parameter		Symbol	Ratings	Unit
Radiant power		P _O	50	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	35	mA
Operating current		I _{OP}	CW P _O = 40mW	40	80	100	mA
Operating voltage		V _{OP}	CW P _O = 40mW		2.0	2.5	V
Oscillation wavelength		λ _L	CW P _O = 40mW	770	785	805	nm
Radiation angle	Horizontal direction	θ *1	CW P _O = 40mW	7	9	13	deg.
	Vertical direction	θ _⊥ *1	CW P _O = 40mW	20	25	30	deg.
Differential efficiency		η	CW P _O = 36mW/I(40mW − 4mW)	0.7	0.9	1.2	W/A
PIN photo current		I _P	CW P _O = 40mW, V _R (PIN) = 5V		0.5		mA
Reverse current (DC)		I _R	V _R (PIN) = 15V			0.1	μA
Optical axis accuracy	X direction	θ _X	CW P _O = 40mW	−2.0		+2.0	deg.
	Y direction	θ _Y	CW P _O = 40mW	−3.0		+3.0	deg.

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



