

LNC710PS

AlGaAs-Infrared Laser Diode

■ Features

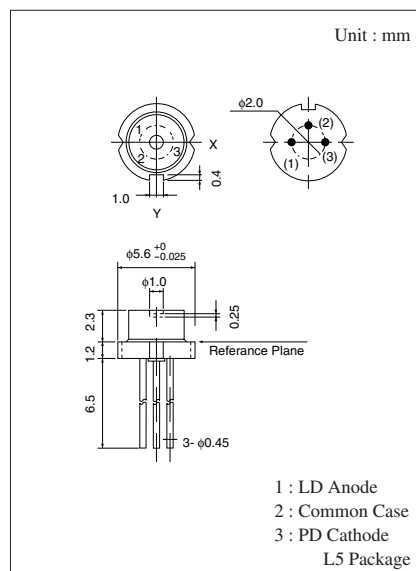
- Oscillation wavelength: 784 nm
- Radiant power: 130 mW (with 260 mW pulse)
- Small package: $\phi 5.6$ mm

■ Applications

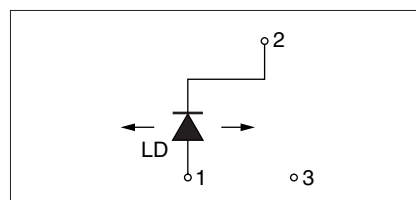
- CD-R/RW

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Radiant power	CW	P_O	130	mW
	Pulse	P_O	260	mW
Reverse voltage	Laser	V_R	2	V
	PIN	$V_{R(PIN)}$	30	V
Power dissipation		$P_{D(PIN)}$	150	mW
Operating ambient temperature		T_{opr}	-10 to +60	$^\circ\text{C}$
Storage temperature		T_{stg}	-40 to +80	$^\circ\text{C}$



Internal Connection



■ Electro-Optical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Threshold current		I_{th}	CW	20	27	40	mA
Operating current		I_{OP}	CW, $P_O = 130$ mW	120	150	180	mA
Operating voltage		V_{OP}		1.8	2.1	2.5	V
Oscillation wavelength		λ_L		780	784	787	nm
Differential efficiency		η	CW, $P_O = 125/I_{OP}$ (130 mW) - I_{OP} (5 mW)	0.85	1.05	1.20	W/A
Beam radiation angle	Horizontal	$\theta_{//}$	CW, $P_O = 130$ mW	8.0	9.0	10.5	$^\circ$
	Vertical	θ_{\perp}		15.0	17.0	19.0	$^\circ$
Optical axis accuracy	X direction	θ_X		-1.5	—	+1.5	$^\circ$
	Y direction	θ_Y		-2.0	—	+2.0	$^\circ$
Astigmatism difference *		As		—	—	3	μm
Accuracy of emission point		Δ_X		-80	—	+80	μm
		Δ_Y		-80	—	+80	μm
		Δ_Z		-80	—	+80	μm

Note) *: Guarantee of Designed Specification.

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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