

LNC704PS

GaAlAs Semiconductor Laser

Features

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

Applications

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

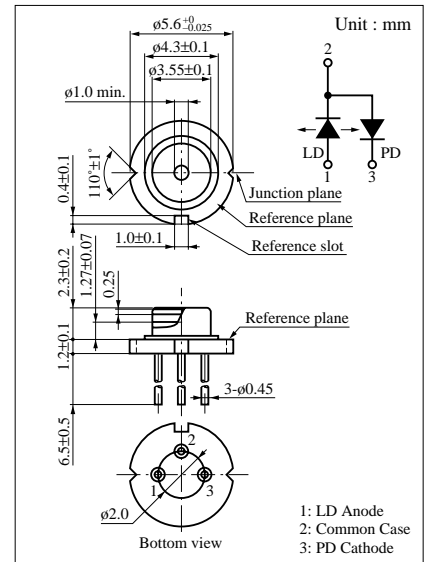
Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rated	Unit
Radiant power	P _O	40	mW
Reverse voltage	Laser	V _R	2
	PIN	V _R (PIN)	30
Power dissipation	P _d (PIN)	100	mW
Operating ambient temperature	T _{opr}	-10 to +60	°C
Storage temperature	T _{stg}	-40 to +80	°C

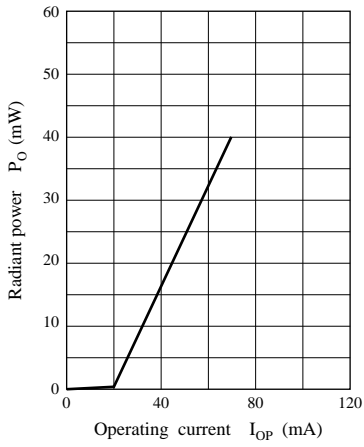
Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Threshold current	I _{th}	CW	10	20	35	mA
Operating current	I _{OP}	CW P _O = 32mW	30	70	90	mA
Operating voltage	V _{OP}	CW P _O = 32mW		2.0	2.5	V
Oscillation wavelength	λ _L	CW P _O = 32mW	770	785	805	nm
Radiation angle	Horizontal direction	θ _{//} ^{*1}	7	9	13	deg.
	Vertical direction	θ _⊥ ^{*1}	20	25	30	deg.
Differential efficiency	η	CW P _O = 29mW/I(32mW - 3mW)	0.7	0.9	1.2	W/A
PIN photo current	I _P	CW P _O = 32mW, V _R (PIN) = 5V		0.4		mA
Reverse current (DC)	I _R	V _R (PIN) = 15V			0.1	μA
Optical axis accuracy	X direction	θ _X	-2.0		+2.0	deg.
	Y direction	θ _Y	-3.0		+3.0	deg.

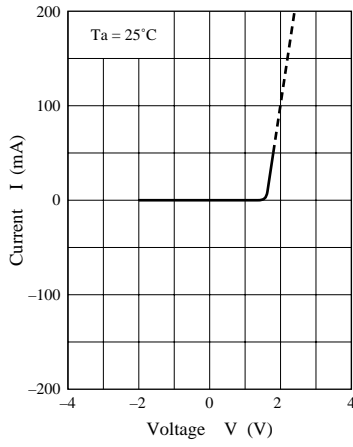
*1 The radiation angle is indicated as half full angle.



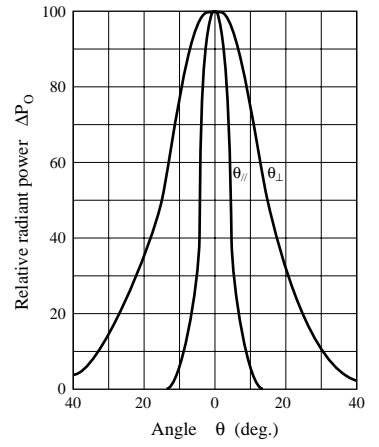
$P_O - I_{OP}$



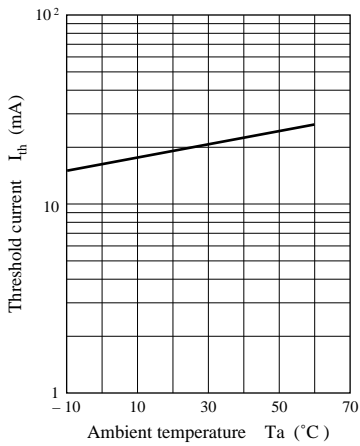
$I - V$



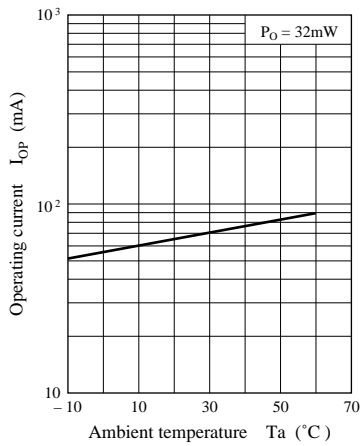
Far field pattern



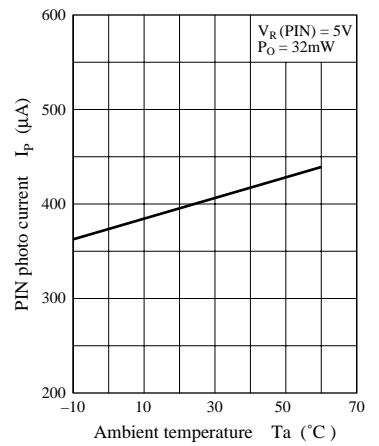
$I_{th} - T_a$



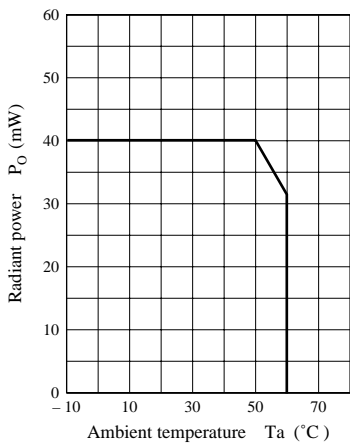
$I_{OP} - T_a$



$I_p - T_a$



$P_O - T_a$



$I_d - T_a$

