

LNCQ02PS

Red Light Semiconductor Single Mode Laser

Features

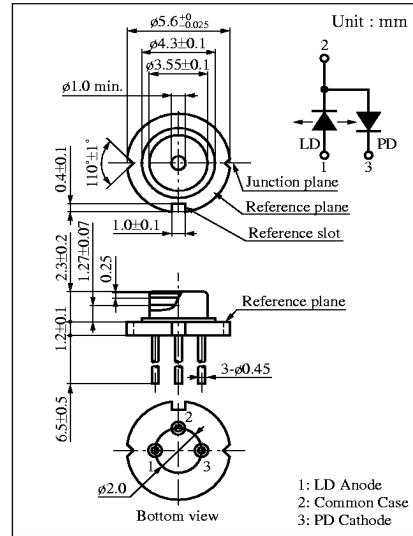
- Oscillating wavelength : 655 nm
- Low astigmatic difference

Applications

- Optical data processing devices

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Radiant power	P _O	5	mW
Reverse voltage	Laser V _R	1.5	V
	PIN V _R (PIN)	30	V
Power dissipation	P _d (PIN)	60	mW
Operating ambient temperature	T _{opr}	-10 to +65	°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	20	35	70	mA
Operating current	I _{OP}	CW P _O = 4mW	30	45	85	mA
Operating voltage	V _{OP}	CW P _O = 4mW	1.8	2.3	2.8	V
Slope efficiency	SE	CW P _O = 1 - 4mW	0.2	0.5	0.8	W/A
Oscillation wavelength	λ _L	CW P _O = 4mW	635	655	665	nm
Radiation angle	Horizontal direction θ ^{*1}	CW P _O = 4mW	7	8.5	11	deg.
	Vertical direction θ _⊥ ^{*1}	CW P _O = 4mW	19	27	31	deg.
PIN photo current	I _P	CW P _O = 4mW, V _R (PIN) = 5V	0.1	0.4	1.0	mA
PIN dark current	I _d	V _R (PIN) = 15V			0.1	μA
Optical axis accuracy	X direction θ _X	CW P _O = 4mW	-2.0		+2.0	deg.
	Y direction θ _Y	CW P _O = 4mW	-3.0		+3.0	deg.
Astigmatic difference	As ^{*2}	CW P _O = 4mW		5	8	μm

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

^{*2} Guaranteed value in design.

