

LN9R05MS.P

Red Light Semiconductor Laser

Outline

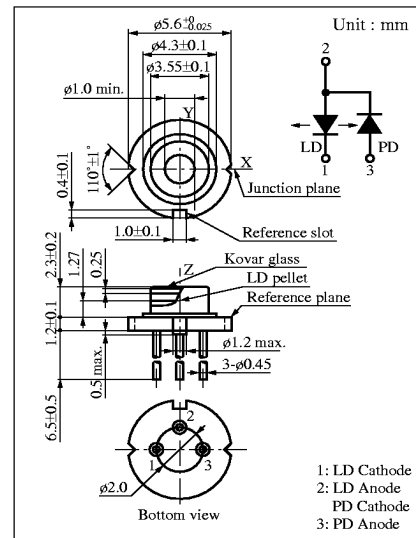
The LN9R05MS.P, a visible light semiconductor laser is a red semiconductor laser which can function as a high-performance light source for display devices such as laser pointers.

Features

- Oscillating wavelength : 670 nm
- Low threshold oscillation : 25 mA
- Stable single horizontal mode oscillation
- For pointer
- Small package

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rated	Unit	
Radiant power	P _O	5	mW	
Reverse voltage	Laser	V _R	2	V
	PIN	V _R (PIN)	30	V
Power dissipation	P _d (PIN)	60	mW	
Operating ambient temperature	T _{opr}	-10 to +50	°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	15	25	30	mA
Operating current	I _{OP}	P _O = 3mW	20	35	45	mA
Operating voltage	V _{OP}	P _O = 3mW	2.0	2.5	3.5	V
Oscillation wavelength	λ _L	P _O = 3mW	665	670	680	nm
Radiation angle	Horizontal direction	θ _H *	6	8	11	deg.
	Vertical direction	θ _V *	25	30	40	deg.
PIN dark current	I _d	V _R (PIN) = 15V			0.1	μA
PIN photo current	I _p	P _O = 3mW, V _R (PIN) = 5V		0.2		mA
Optical axis accuracy	X direction	θ _X	-2.0		+2.0	deg.
	Y direction	θ _Y	-3.0		+3.0	deg.
Oscillation mode	Single horizontal mode					

*1 θ_H and θ_V are the angles where the optical intensity is a half of its max. value. (half full angle)

