NDL3220, NDL3220S

670 nm BAR CODE READER, POINTER APPLICATION
AlGaInP MQW VISIBLE LASER DIODE

DESCRIPTION

NDL3220 is an AlGaInP 670 nm visible laser diode and especially developed for Bar Code Reader and Pointer.

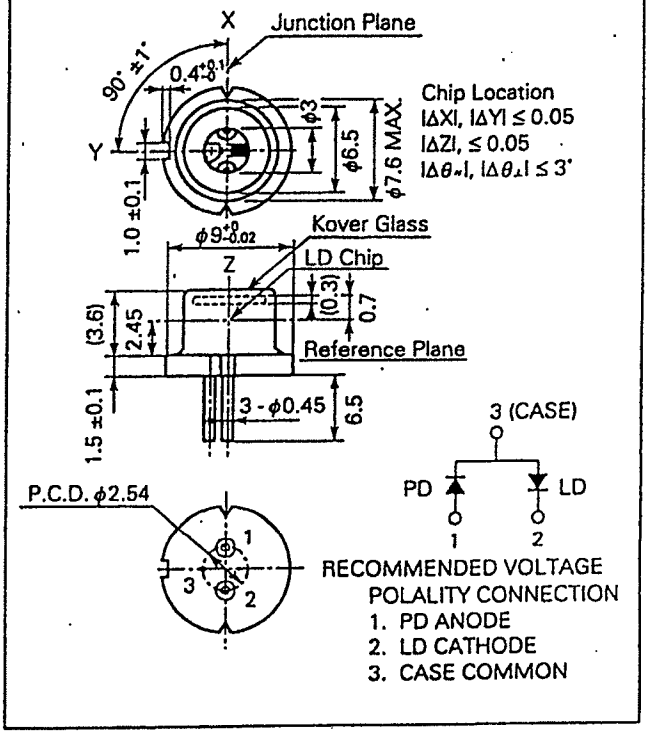
FEATURES

- Low Operating Current (Iop = 30 mA TYP.)
- Low Operating Voltage (Vop = 2.1 V TYP.)
- Wide Operating Case Temperature
  (Tc = −10 to +60 °C)
- Peak Emission Wavelength (λ = 670 nm TYP.)
- Fundamental Transverse Mode

ABSOLUTE MAXIMUM RATINGS (T_c = 25 °C)

Optical Output Power	P_O	6.0	mW
Reverse Voltage	V_R	2.0	V
Operating Case Temperature	T_c	−10 to +60	°C
Storage Temperature	T_{stg}	−40 to +85	°C
Monitor PD			
Reverse Voltage	V_R	30	V
Forward Current	I_F	20	mA

NDL3220 PACKAGE DIMENSIONS
in millimeters



RECOMMENDED OPERATING CONDITIONS (T_c = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Optical Output Power	P_O			5.0	mW

Document No. P10255EJ2V0DS00 (2nd edition)
Previous No. LD-3287)
Date Published August 1995 P
Printed in Japan

ELECTRO-OPTICAL CHARACTERISTICS (T_c = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Operating Voltage	V_{op}		2.1	2.3	V	Po = 5.0 mW
Threshold Current	I_{th}		20	30	mA	CW
Operating Current	I_{op}		30	40	mA	Po = 5.0 mW
Monitor Current NDL3220	I_m	0.05	0.1	0.2	mA	Po = 5.0 mW V_R = 5 V
Monitor Current NDL3220S	I_m	0.1	0.3	0.5	mA	Po = 5.0 mW
Peak Emission Wavelength	λ_p	660	670	680	nm	Po = 5.0 mW
Vertical Beam Angle	$\theta_\perp$	25	30	35	deg.	Po = 5.0 mW, FAHM*
Lateral Beam Angle	$\theta_{//}$	6	8	10	deg.	Po = 5.0 mW, FAHM*

* FAHM: Full Angle at Half Maximum

NDL3220S PACKAGE DIMENSIONS

in millimeters