TENTATIVE

MITSUBISHI LASER DIODES

ML5xx71 LD SERIES

FOR DISPLAY SYSTEM

TYPE NAME

ML520G71

This type is under development. Therefore, please note that this data sheet may be changed without any notice.

DESCRIPTION

Mitsubishi ML520G71 is a high-power, high-efficient semiconductor laser diode which provides emission wavelength of 638 nm and standard light output of 220mW.

This LD has broad-stripe structure which enables high output power.

FEATURES

- High Output Power: 220 mW (CW, 55° C)
- High Efficiency: 1.1W/A (typ.)
- Visible Light: 638nm (typ.)
- 5.6mmφ TO-CAN PKG

APPLICATION

Display system

ABSOLUTE MAXIMUM RATINGS (Note 1)

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power	CW	**300(Tc ≤ 45 °C), 220(45 °C <Tc ≤ 55 °C)**	mW
VRL	Reverse voltage	-	**2**	V
Tc	Case temperature	-	**-5 ~ +55**	°C
Tstg	Storage temperature	-	**-40 ~ +100**	°C

Note1: The maximum rating means the limitation over which the laser should not be operated even instant time. This does not mean the guarantee of its lifetime. As for the reliability, please refer to the reliability report issued by Quality Assurance Section, HF & Optical Semiconductor Division, Mitsubishi Electric Corporation.

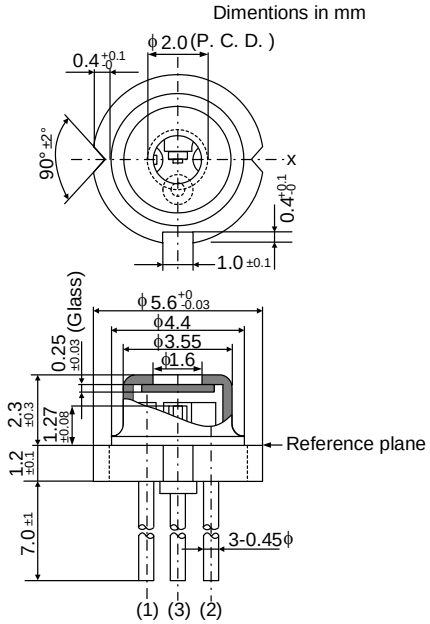
ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25°C)

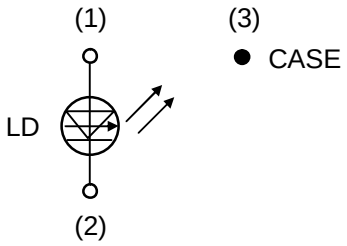
Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
Ith	Threshold current	CW	**80**	**130**	**180**	mA
Iop	Operating current	CW, Po=220mW	**230**	**330**	**400**	mA
Vop	Operating voltage	CW, Po=220mW	**1.9**	**2.3**	**2.6**	V
η	Slope efficiency	CW, P_{low}=10mW P_{high}=50mW	**0.8**	**1.1**	**1.2**	mW/mA
λp	Peak wavelength	CW, Po=150mW	**632**	**638**	**644**	nm
θ//	Beam divergence angle (parallel)	CW, Po=150mW	**1**	**7**	**13**	°
θ⊥	Beam divergence angle (perpendicular)	CW, Po=150mW	**30**	**40**	**47**	°

OUTLINE DRAWINGS

ML520G71

Φ5.6mm





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