ML1XX8 SERIES

FOR OPTICAL INFORMATION SYSTEMS

TYPE NAME

ML101J8, ML120G8

DESCRIPTION

ML1XX8 is a high power AlGaInP semiconductor laser which provides a stable, single transverse mode oscillation with emission wavelength of 660-nm and standard CW light output of 40mW.

ML1XX8 has a window-mirror-facet which improves the maximum output power. That leads to highly reliable and high-power operation.

FEATURES

- High Output Power: 40mW (CW) , 60mW (Pulse)
- Visible Light: 660nm (typ.)

APPLICATION

High-Density Optical Disc Drives
DVD(Digital Versatile Disc)-RAM Drive

ABSOLUTE MAXIMUM RATINGS Note 1)

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power	CW	**45**	mW
		Pulse(Note 2)	**60**	
VRL	Reverse voltage	-	**2**	V
Tc	Case temperature	-	**- 10 ~ +60**	°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, and this does not mean the guarantee of its lifetime. As for the reliability,please refer to the reliability report from Mitsubishi Semiconductor Quality Assurance Department.

Note2: TARGET SPEC /Condition Duty less than 50%,pulse width less than 0.1μs

ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25°C)

Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
Ith	Threshold current	CW	-	**57**	-	mA
Iop	Operating current	CW,Po=40mW	-	**117**	-	mA
Vop	Operating voltage	CW,Po=40mW	-	**2.5**	**3.0**	V
η	Slope efficiency	CW,Po=40mW	-	**0.67**	-	mW/mA
λp	Peak wavelength	CW,Po=40mW	**655**	**660**	**666**	nm
θ//	Beam divergence angle (parallel)	CW,Po=40mW	-	**8.5**	-	°
θ⊥	Beam divergence angle (perpendicular)	CW,Po=40mW	-	**22**	-	°

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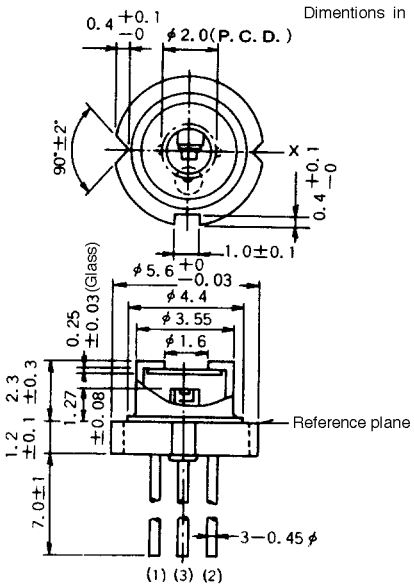
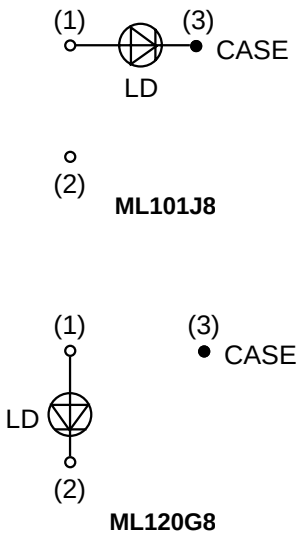
OUTLINE DRAWINGS

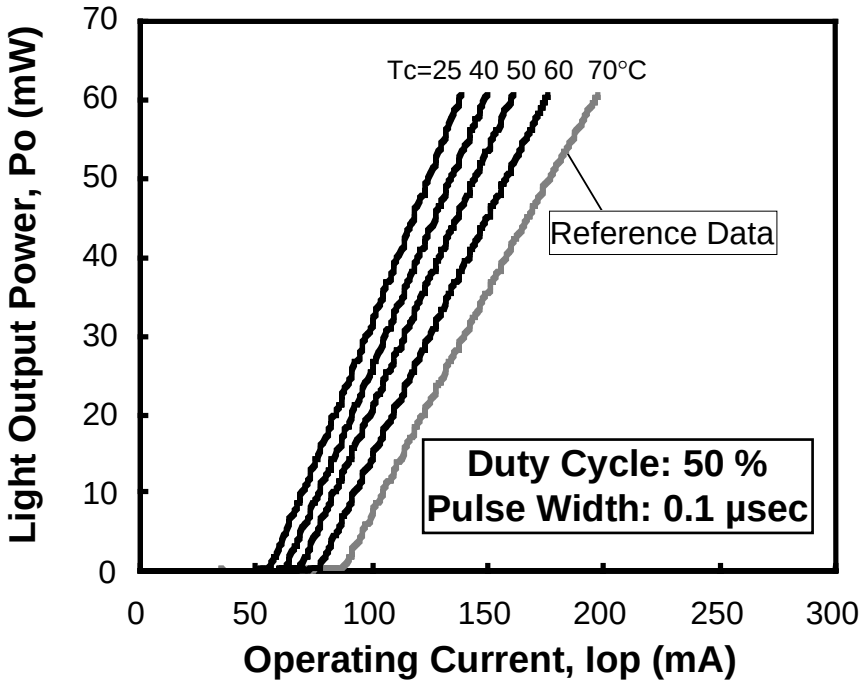
ML101J8
ML120G8



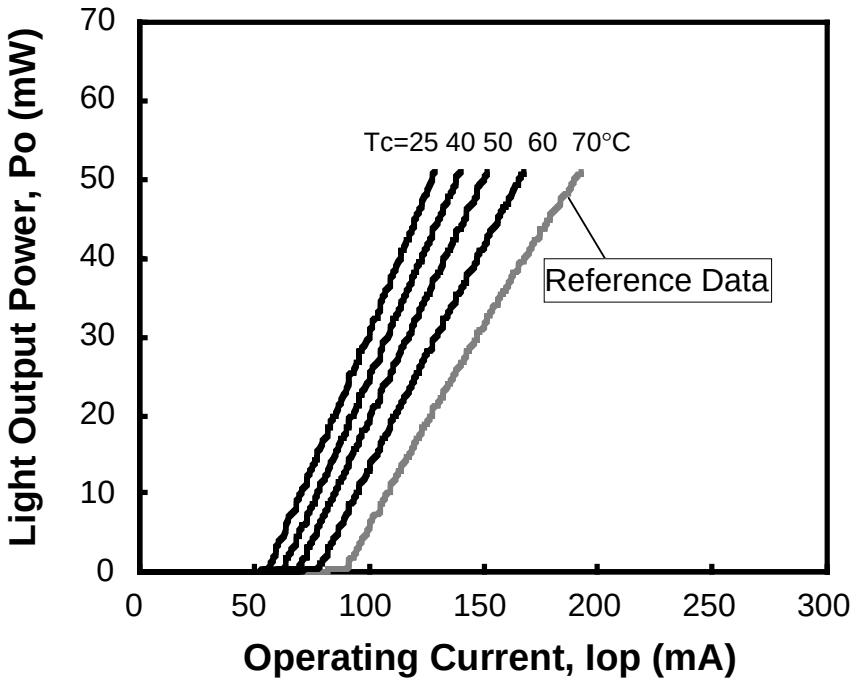


There is no model with a monitor photo diode in ML1xx8 series.

Typical Characteristics



Light Output Power vs. Current (Pulse)



Light Output Power vs. Current (CW)