MITSUBISHI LASER DIODES

ML6XX35 SERIES

FOR OPTICAL INFORMATION SYSTEMS

Under Development

Preliminary

TYPE NAME

ML601J35

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

DESCRIPTION

ML6XX35 has window-mirror structure for increasing COD power and real-reflective-index wave guide for reducing operation current.

ML6XX35 is a highly reliable high-power and high-efficiency AlGaAs semiconductor laser which provides a stable, single transverse mode oscillation with emission wavelength of 785nm and standard pulse output power of 200mW.

FEATURES

- Pulse available output power : up to 200mW (tp≤0.1μs, Duty≤50%)
- Small astigmatic distance
- Low operation current

APPLICATION

- 40X CD-R/RW Drive

ABSOLUTE MAXIMUM RATINGS (Note 1)

Based on Mitsubishi's measurement standards

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power	CW	90	mW
		Pulse(Note 2)	200	
VRL	Reverse voltage	-	2	V
Tc	Case temperature	-	-10 ~ +75	°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 is sued by Quality Assurance Section, HF & Optical Semiconductor Division, Mitsubishi Electric Corporation.

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

ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25°C)

Based on Mitsubishi's measurement standards

Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
Ith	Threshold current	CW	-	35	-	mA
Iop	Operating current	CW, Po=90mW	-	120	-	mA
Vop	Operating voltage	CW, Po=90mW	-	1.9	-	V
η	Slope efficiency	CW, Po=90mW	-	1.05	-	mW/mA
λp	Peak wavelength	CW, Po=90mW	780	784	790	nm
θ//	Beam divergence angle (parallel)	CW, Po=90mW	8	8.5	10	°
θ⊥	Beam divergence angle (perpendicular)	CW, Po=90mW	15	17	19	°

NSPF

As of 4th December '01

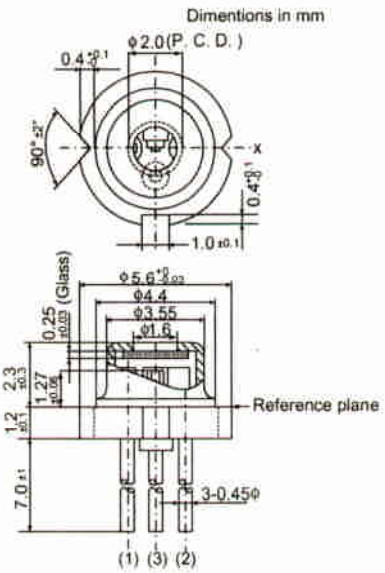
MITSUBISHI ELECTRIC

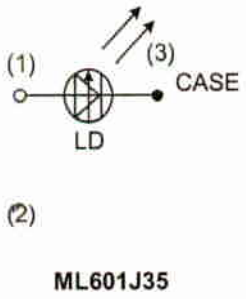
ML6XX35 SERIES

FOR OPTICAL INFORMATION SYSTEMS

OUTLINE DRAWINGS

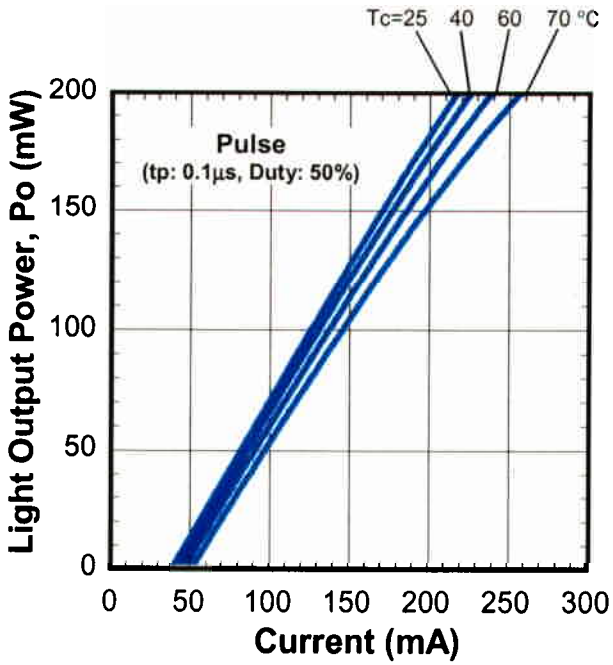
ML601J35



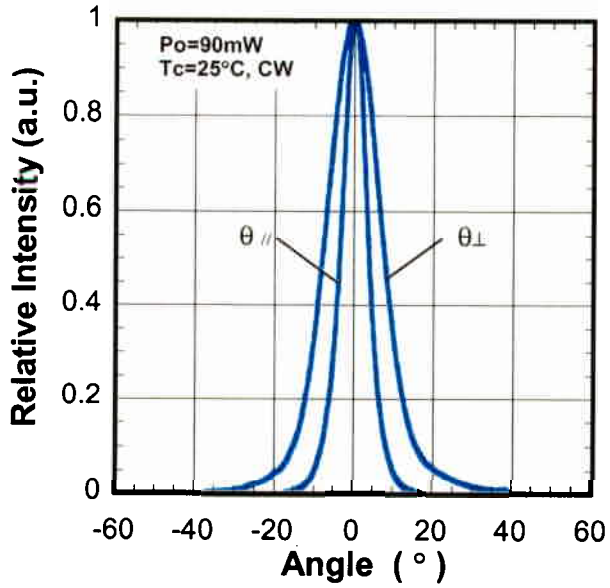


There is no model with a monitor photo diode in ML6XX35 series.

TENTATIVE CHARACTERISTICS (Reference Data)



Light Output Power vs. Current (Pulse)



Far Field Patterns