Preliminary

MITSUBISHI LASER DIODES

ML6XX34 SERIES

FOR OPTICAL INFORMATION SYSTEMS

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

DESCRIPTION

ML6XX34haswindow-mirrorstructureforincreasingCOD power and real-reflective-index wave guide for reducing operationcurrent.

ML6XX34 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 160mW.

FEATURES

- Pulseavailableoutputpower : **up to 160mW** (t ≤0.1μs, Dut ≤50%)
- Smallastigmaticdistance
- Lowoperationcurrent

APPLICATION

- **16X CD-R/RW Drive**

ABSOLUTE MAXIMUM RATINGS (Note1)

BasedonMitsubishi'smeasurementstandards

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power(Tc=25 °C)	CW	90	mW
		Pulse(Note2)	180	
VRL	Reverse voltage	-	2	V
Tc	Case temperature	-	-10 ~ +70	°C
Tstg	Storage temperature	-	-40 ~ +100	°C

Note1:Themaximumratingmeansthelimitationoverwhichthelasershouldnotbeoperatedeveninstanttime, andthisdoesneithermeantheguaranteeofitslifetimenoritselectricalandopticalcharacteristics.Asforthe reliability,pleaserefertothereliabilityreportissuedbyQualityAssuranceSection,HF&OpticalSemiconductorDivision, MitsubishiElectricCo..

Note2:TARGETSPEC. /Condition:Pulsewidthlessthan0.1 μs,Dutylessthan50%

ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=2! °C)

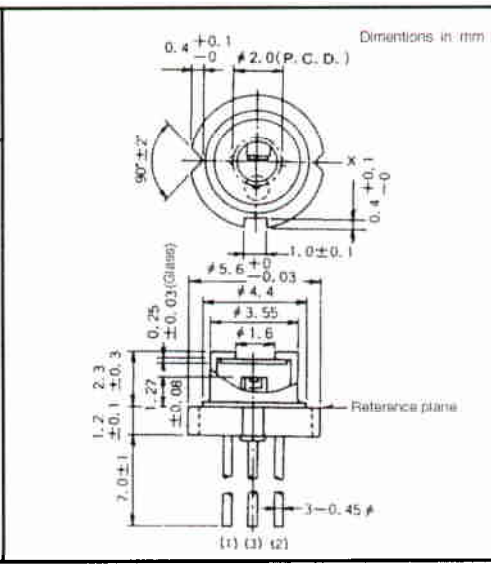
BasedonMitsubishi'smeasurementstandards

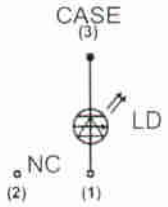
Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
Ith	Threshold current	CW	-	40	-	mA
Iop	Operation current	CW,Po=80mW	-	120	-	mA
η	Slope efficiency	CW,Po=80mW	-	1.0	-	mW/mA
Vop	Operating voltage	CW,Po=80mW	-	2.0	-	V
λp	Peak wavelength	CW,Po=80mW	775	785	795	nm
θ//	Beamdivergenceangle (parallel)	CW,Po=80mW	-	8.5	-	°
⊥	Beamdivergenceangle (perpendicular)	CW,Po=80mW	-	17	-	°

NSPF

OUTLINE DRAWINGS

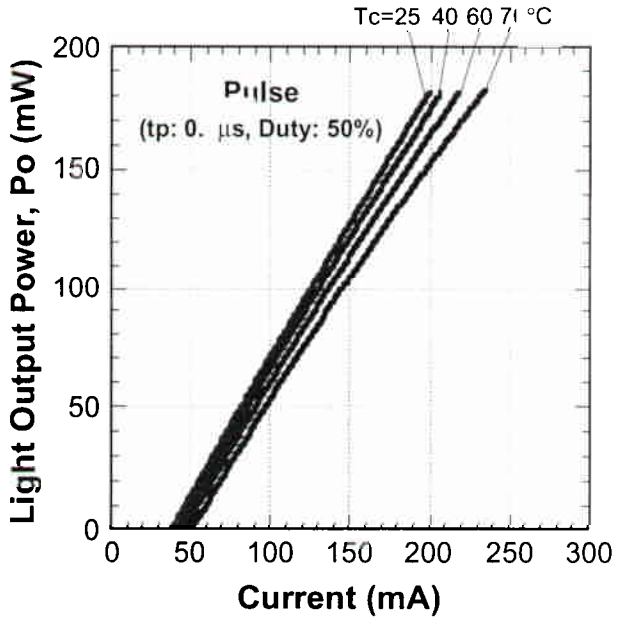
ML601J34



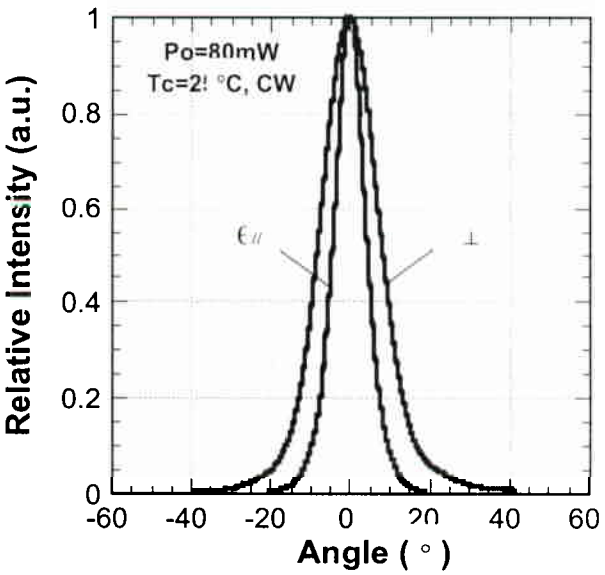


Thereis nomodelwithamonitorphotodiodeinML6XX34series.

TENTATIVE CHARACTERISTICS (Reference Data)



LightOutputPowervs.Current(Pulse)



FarFieldPatterns