

**PRELIMINARY**

Notice: This is not a final specification.  
Some parametric limits are subject to change.

MITSUBISHI LASER DIODES  
**ML8XX2 SERIES**

InGaAs — MQW HIGH POWER LASER DIODES

TYPE  
NAME

**ML8XX2**

**DESCRIPTION**

ML8XX2 series are InGaAs high power laser diodes which provides a stable, single transverse mode oscillation with emission wavelength of 980nm and standard continuous light output of 150mW.

**FEATURES**

- High power (CW 150mW)
  - 980nm typical emission wavelength
  - Stable single transverse mode oscillation
  - MQW\* active layer
- \*: Multiple Quantum Well

**APPLICATION**

Optical fiber amplifier

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Conditions	Ratings	Unit
P <sub>o</sub>	Light output power	CW	180	mW
I <sub>F</sub>	Forward current	CW	350	mA
T <sub>c</sub>	Case temperature	—	+20~+30	°C
T <sub>stg</sub>	Storage temperature	—	-40~+100	°C

**ELECTRICAL/OPTICAL CHARACTERISTICS (T<sub>c</sub> = 25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I <sub>th</sub>	Threshold current	CW	—	20	50	mA
I <sub>OP</sub>	Operating current	CW, P <sub>o</sub> = 150mW	—	200	260	mA
V <sub>OP</sub>	Operating voltage	CW, P <sub>o</sub> = 150mW	—	2.0	2.5	V
λ <sub>c</sub>	Center wavelength	CW, P <sub>o</sub> = 150mW	970	980	990	nm
Δλ	Spectral width	CW, P <sub>o</sub> = 150mW, RMS	—	0.3	2	nm
θ <sub>  </sub>	Beam divergence angle (parallel)	CW, P <sub>o</sub> = 150mW	5	8	15	deg.
θ <sub>⊥</sub>	Beam divergence angle (perpendicular)	CW, P <sub>o</sub> = 150mW	30	35	40	deg.

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**TYPICAL CHARACTERISTICS**

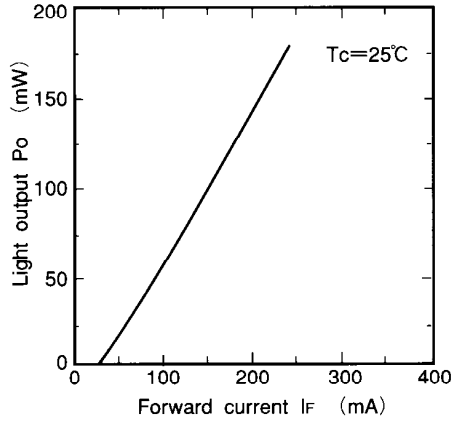


Fig.1 Light output vs. forward current

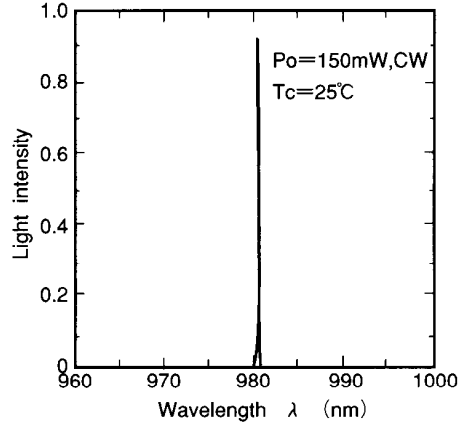


Fig.2 Spectrum

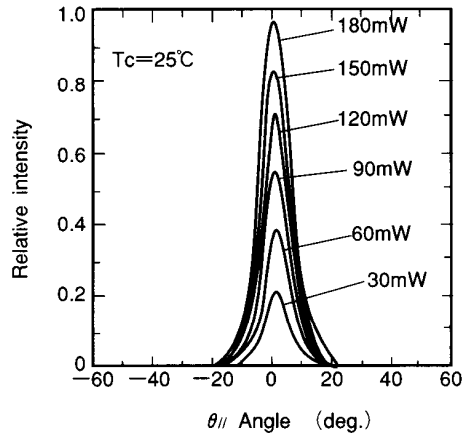
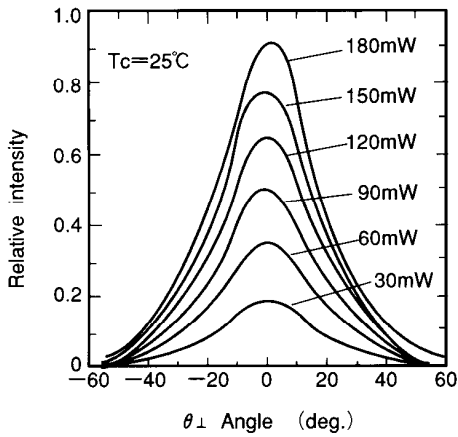


Fig.3 Far field patterns