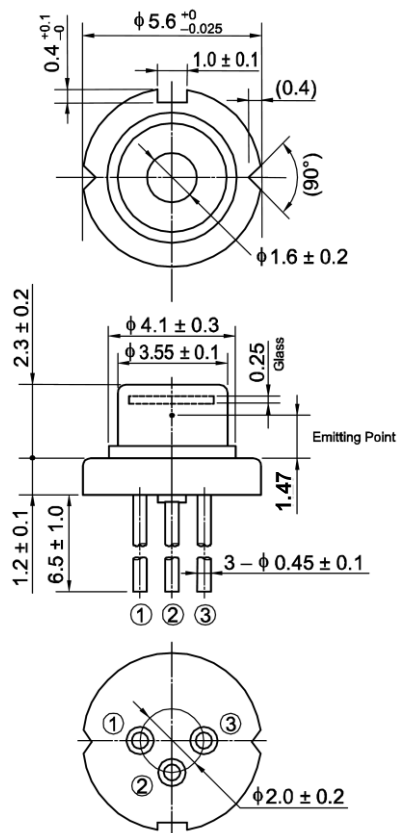




HL78002MG

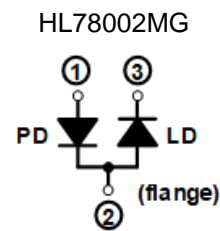
785nm/210mW Laser Diode

Outline



(Unit: mm)

Internal Circuit



Features

- Infrared light output: 785nm Typ.
- High optical output power: 210mW (CW)
- Operating current: 230mA Typ. at 200mW
- High operating temperature: -10 ~ +75 °C
- Single transverse mode
- TE mode oscillation

Application

- Raman Spectroscopy
- Life Science
- Particle Counter
- Quantum Technology
- Laser module

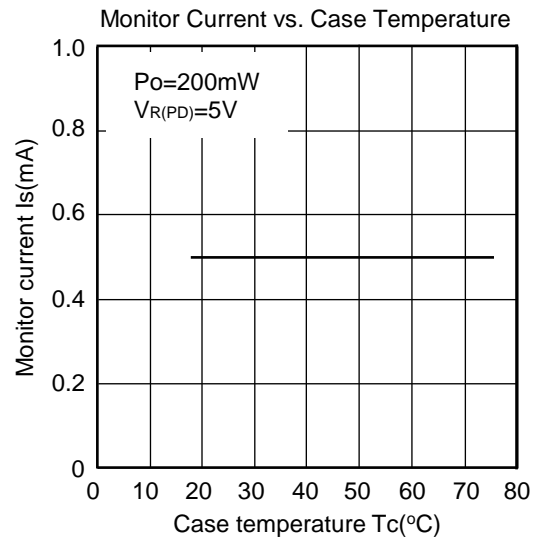
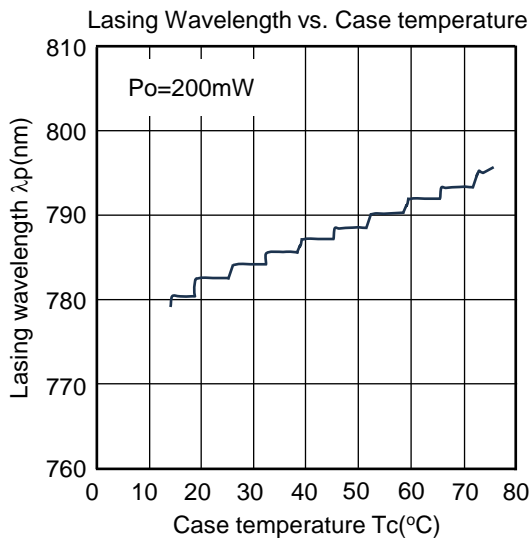
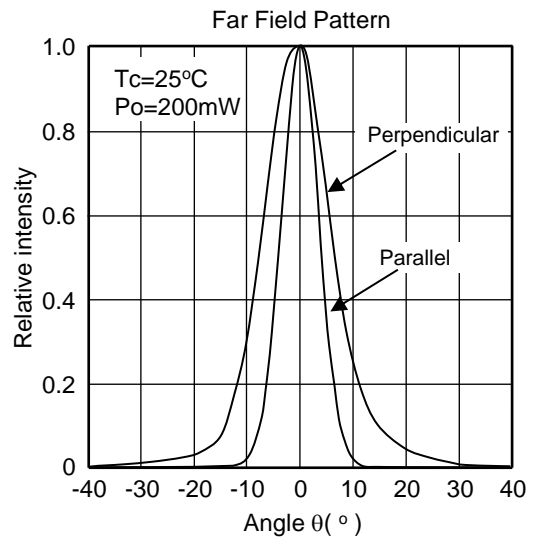
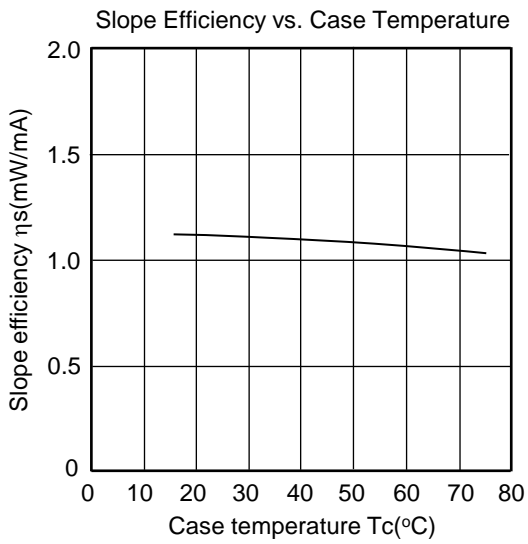
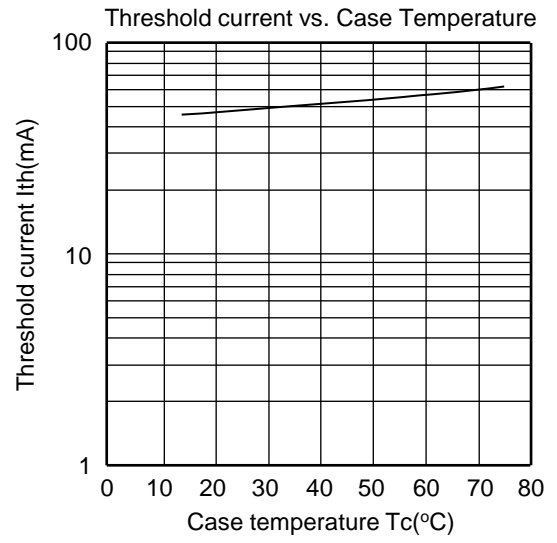
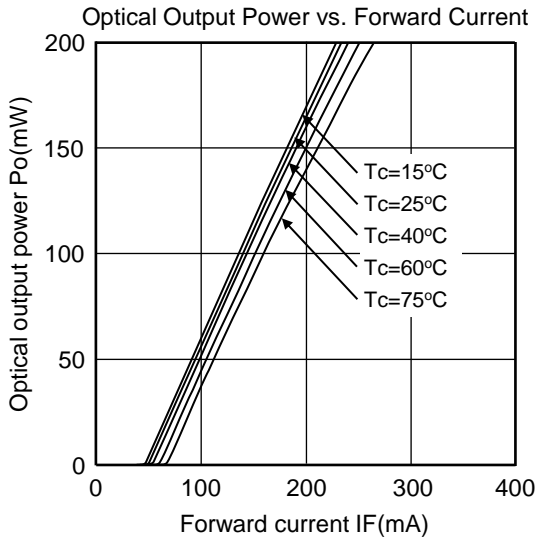
Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power	Po	210	mW
LD reverse voltage	V _{R(LD)}	2	V
PD reverse voltage	V _{R(PD)}	30	V
Operating temperature	Topr	-10 ~ +75	°C
Storage temperature	Tstg	-40 ~ +85	°C

Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	I _{th}	-	45	80	mA	-
Operating current	I _{op}	-	230	275	mA	Po=200mW
Operating voltage	V _{op}	-	2.8	3.3	V	Po=200mW
Beam divergence Parallel to the junction	θ _{//}	5	8.5	11	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ _⊥	11	15	19	°	Po=200mW, FWHM
Lasing Wavelength	λ _p	775	785	795	nm	Po=200mW
Monitor current	I _s	0.1	0.5	1.4	mA	Po=200mW, V _{R(PD)} =5V

Typical Characteristic Curves



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2. This product (without violet laser diode) contains gallium arsenide (GaAs), which may seriously endanger your health even at very low doses. Please avoid treatment which may create GaAs powder or gas, such as disassembly or performing chemical experiments, when you handle the product. When disposing of the product, please follow the laws of your country and separate it from other waste such as industrial waste and household garbage.

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