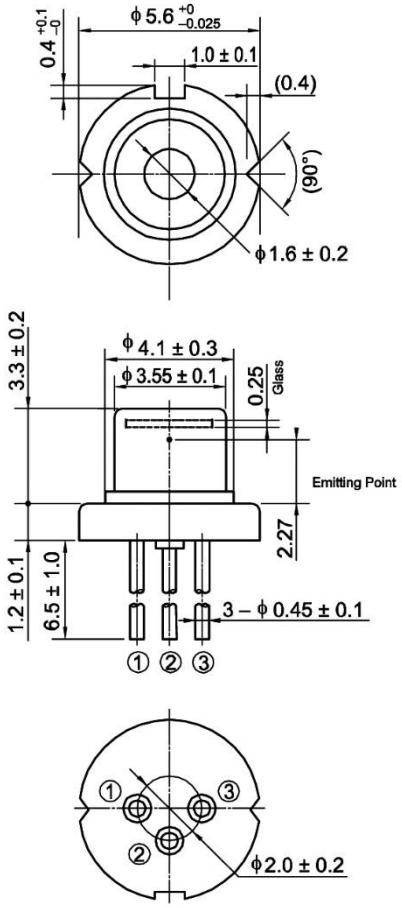
Preliminary Data Sheet

HL69021DG

689nm Anti-Reflection Coated Laser Diode

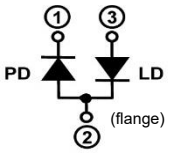
Outline



(Unit: mm)

Internal Circuit

HL69021DG



Features

- AR coated front facet
  Target reflectivity 0.1% at 689nm
- Optical output power 210mW
- Operating temperature: +75°C
- TE mode oscillation

Application

- External cavity diode lasers
- Tunable laser source instruments
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power Note1)	Po	210	mW
Forward current Note1)	I_F	280	mA
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

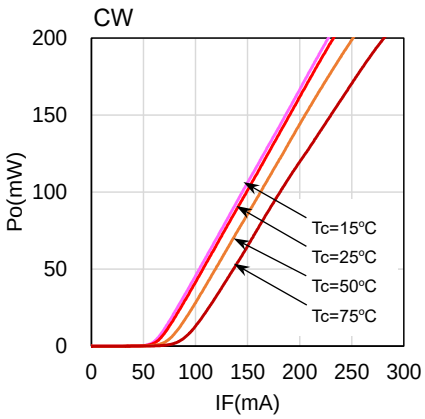
Note1) Either value must not be exceeded.

Optical and Electrical Characteristics (Tc=25°C)

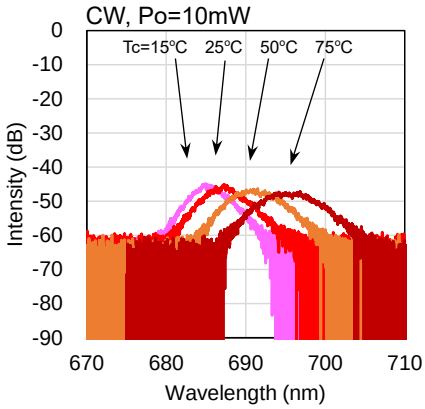
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	60	-	mA	-
Operating current	Iop	-	240	-	mA	Po=200mW
Operating voltage	Vop	-	2.7	-	V	Po=200mW
Wavelength	λp	-	689	-	nm	Po=200mW
Beam divergence Parallel to the junction	θ//	-	8	-	º	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	-	15	-	º	Po=200mW, FWHM

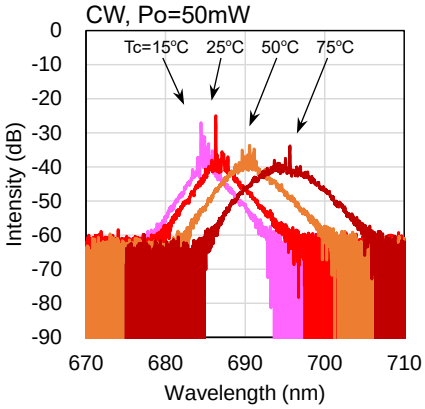
Example Characteristic Curves

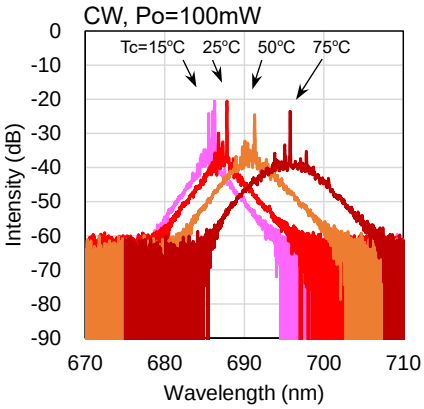
Optical Output Power vs Forward Current

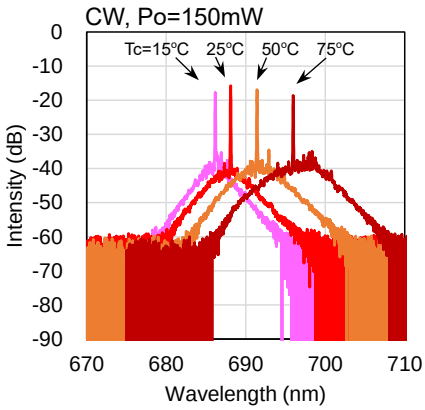


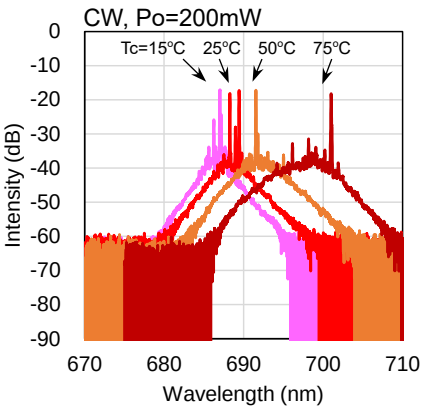
Spectrum











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