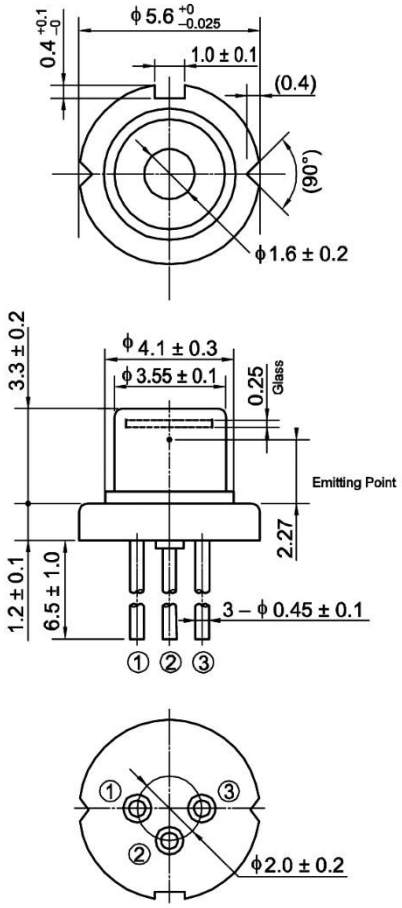
HL63723DG

642nm／200mW／High temperature operation Laser Diode

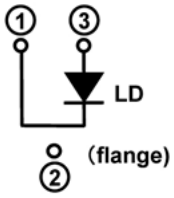
Outline



(Unit: mm)

Internal Circuit

HL63723DG



Features

- Optical output power: 210mW
- Wavelength: 642nm Typ.
- Wide operating temperature: -40 ~ 85°C
- Single transverse mode
- TE mode oscillation
- φ5.6mm CAN Package

Application

- AR Head Up Display
- Interior/Exterior projection
- Sensor
- Light source of optical equipment

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Optical output power Note1)	Po	210	mW
LD reverse voltage	$V_{R(LD)}$	2	V
Operating temperature Note1),2),3)	Topr	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +105	°C

Note1) The relation of operating temperature vs optical output power and operating current are based on Fig.1, 2.
Note2) Operating temperature is defined by Case temperature "Tc". High increase in temperature of LD chip itself is expected during operation due to high current density. Thus, without proper heat dissipation, it is observed that no specific output power is achieved or it results to LD degradation. It is advised that sufficient measure of heat dissipation should be taken so that LD's maximum operating temperature is not exceeded during actual operation.
Note3) No condensation.

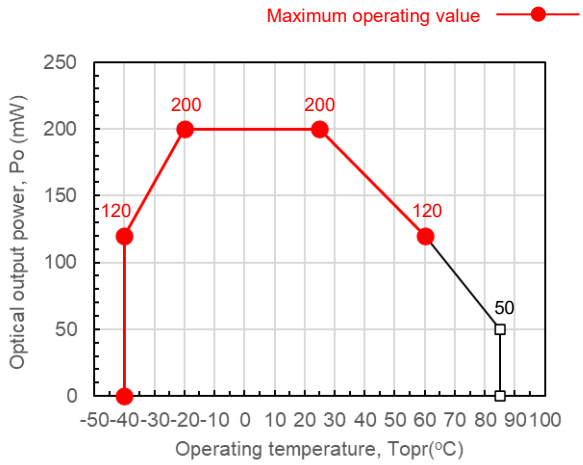


Fig.1 The relation of Operating temperature vs Optical output power

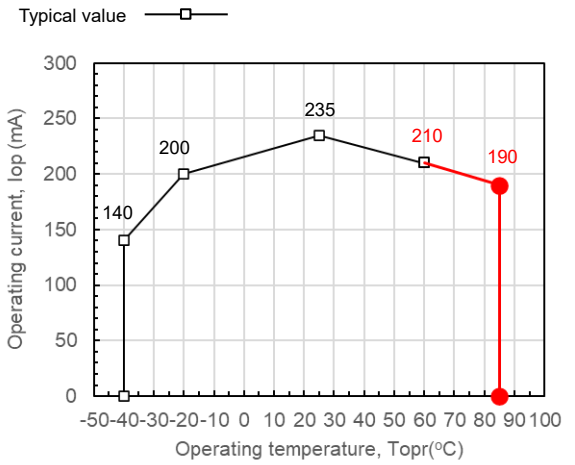
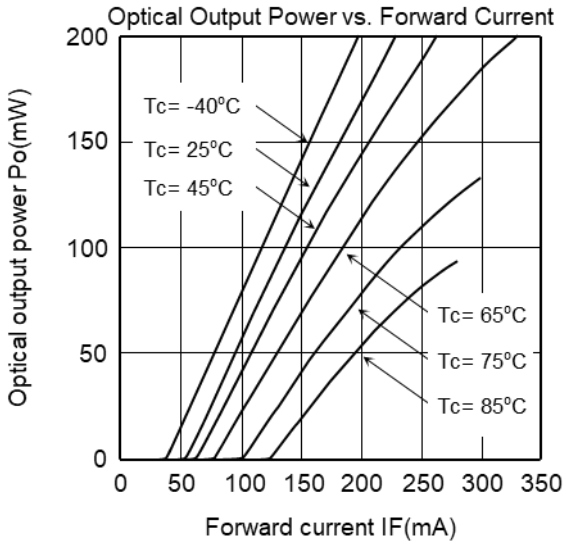


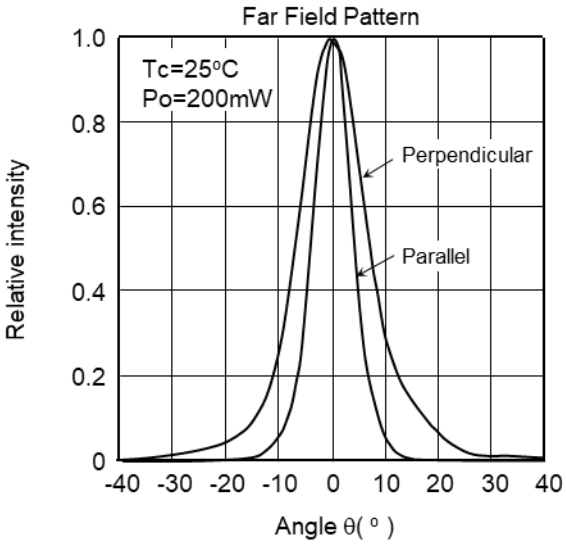
Fig.2 The relation of Operating temperature vs Operating current

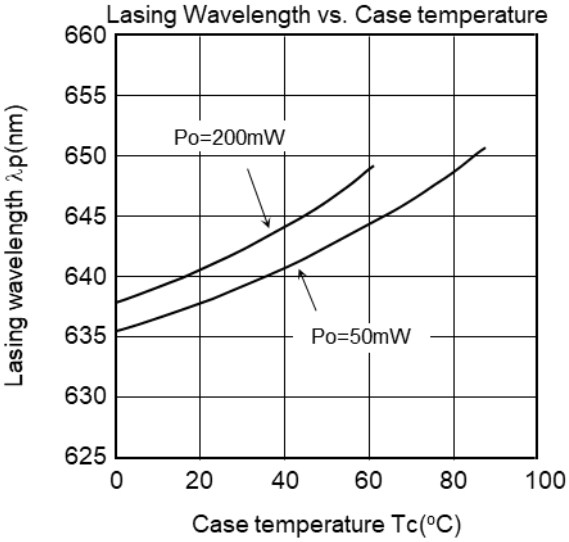
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	55	80	mA	-
Operating current	Iop	-	235	280	mA	Po=200mW
Operating voltage	Vop	-	2.7	3.0	V	Po=200mW
Beam divergence Parallel to the junction	θ//	5	8	13	°	Po=200mW, FWHM
Beam divergence Perpendicular to the junction	θ⊥	11	15	19	°	Po=200mW, FWHM
Lasing Wavelength	λp	638	642	647	°	Po=200mW

Example Characteristic Curves







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