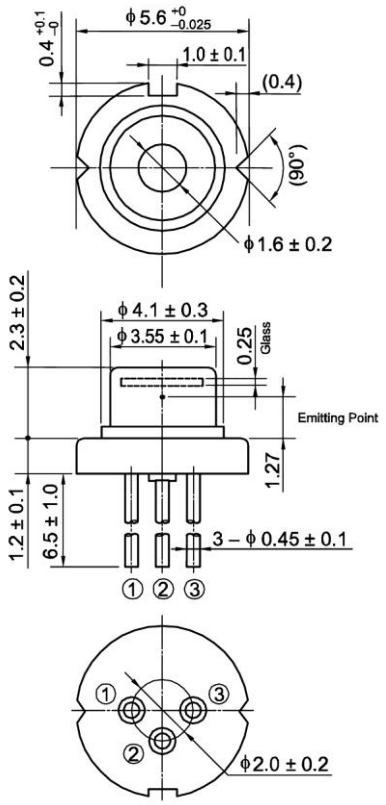
Data Sheet

HL40023MG

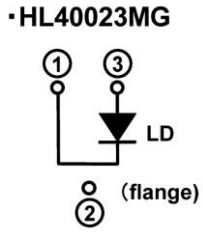
GaN Laser Diode

404nm/500mW

Outline



Internal Circuit



Features:

- Optical output powr: 400mW (CW)
- Violet lasing :398~410nm
- Low operating current: 390mA Typ.
- Low operating voltage: 5.5V Max.
- Small package: ϕ5.6mm
- Multiple transverse mode
- TE mode oscillation

Applications

- Direct Imaging for PCB
- Industry

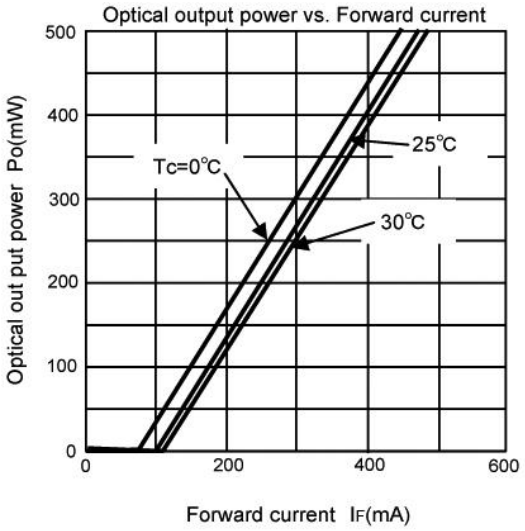
Absolute Maximum Ratings (Tc=25°C)

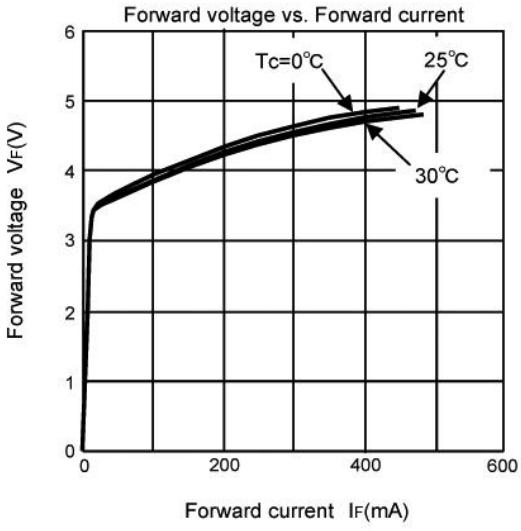
Item	Symbol	Ratings	Unit
Optical output power	Po	500	mW
LD Reverse Voltage	$V_{R(LD)}$	5	V
Operating Temperature	Topr	0 ~ +30	°C
Storage Temperature	Tstg	-35 ~ +85	°C

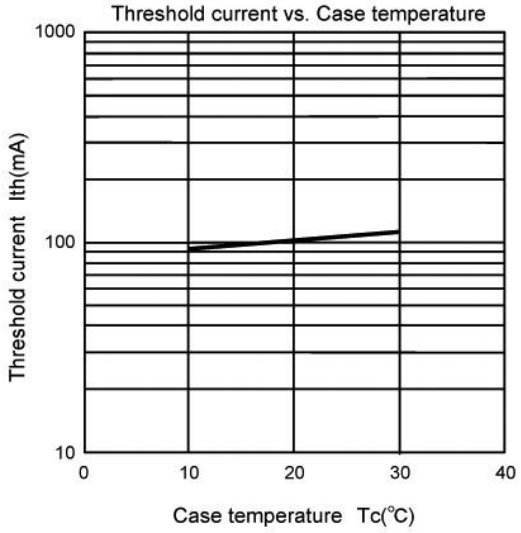
Optical and Electrical Characteristics (Tc=25°C)

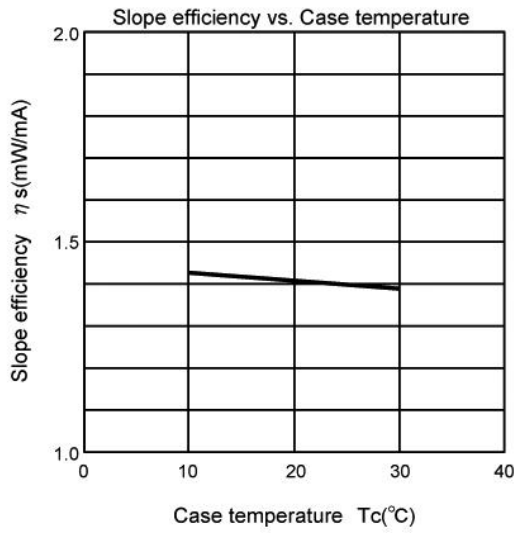
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Threshold current	Ith	-	-	160	mA	-
Operating current	Iop	-	390	420	mA	Po=400mW
Operating voltage	Vop	-	-	5.5	V	Po=400mW
Beam divergence Parallel to the junction	θ//	5	13	25	o	Po=400mW, Full angle $1/e^2$
Beam divergence Perpendicular to the junction	θ⊥	30	45	60	o	Po=400mW, Full angle $1/e^2$
Lasing Wavelength	λp	398	404	410	nm	Po=400mW

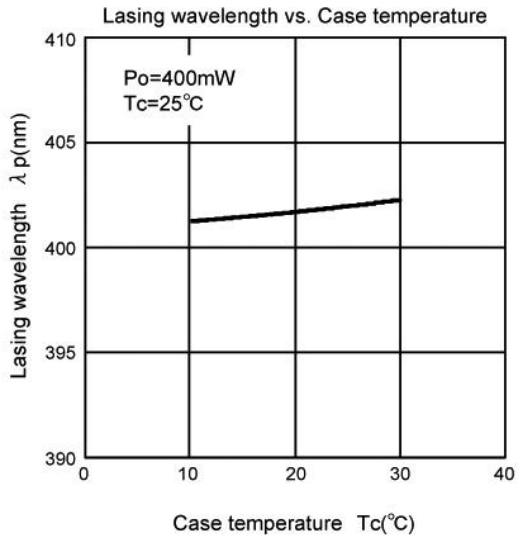
Typical Characteristic Curves

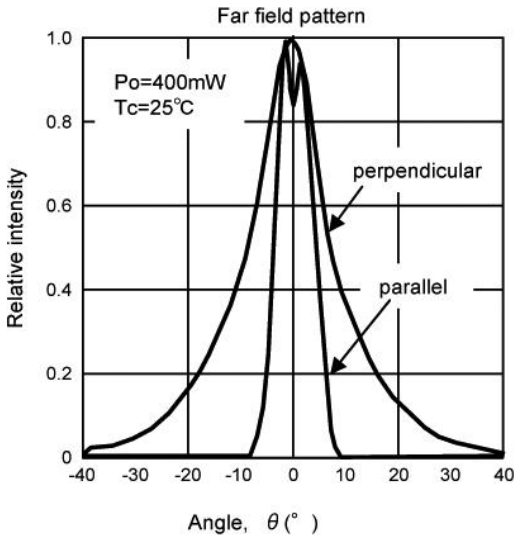












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