

Opnext 705nm / 50mW Laser Diodes

HL7001MG/HL7002MG Series

opnext 



World's First Use in Living Body Light Measurement

- ▶ **Reduced Overall system power consumption**
- ▶ **Ideal for small-sized equipment**
- ▶ **Φ5.6mm Package**

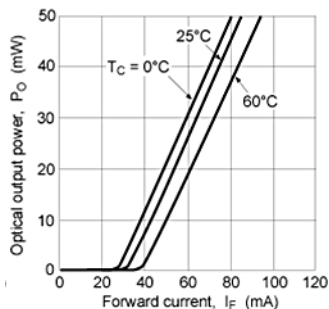
705nm / 50mW Laser Diodes for the use of Living Body Light Measurement

HL7001MG/HL7002MG Series

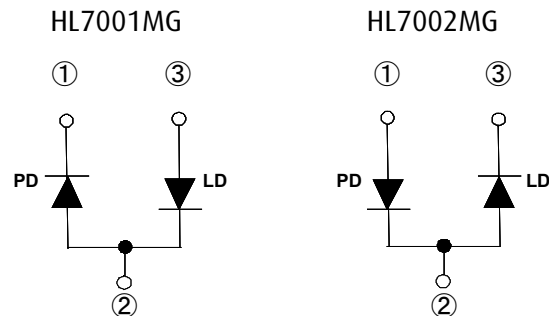
Features and Advantages

Features	Advantages
Lasing wavelength (705nm Typ. @ 40mW, Single longitudinal mode)	High permeability for living (body) tissue and low absorption of hemoglobin and water
Low operating current (75mA Typ. @ 40mW)	Ideal for small sized, low power consumption measurement equipment

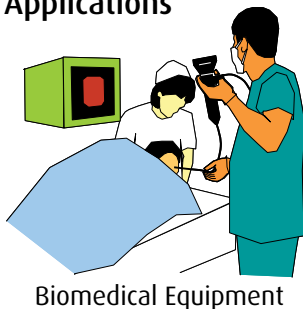
Optical Output Power vs. Forward Current



Internal Circuit



Applications



Datasheets

English: ODE-208-076
Japanese: ODJ-208-073

Package



Main Characteristics (T_c = 25°C)

Item	Symbol	Unit	HL7001MG / HL7002MG			Test Conditions
			Min.	Typ.	Max.	
Threshold Current	I _{th}	mA	-	30	60	-
Slope Efficiency	η _s	mW / mA	0.7	0.9	1.4	24 (mW)/(I(32mW)-I(8mW))
Operating current	I _{op}	mA	-	75	100	P _o =40mW
Operating Voltage	V _{op}	V	-	2.5	-	P _o =40mW
Beam Divergence (parallel)	θ _{//}	°	7	9	14	P _o =40mW, FWHM
Beam Divergence (perpendicular)	θ _⊥	°	14	18	25	P _o =40mW, FWHM
Lasing Wavelength	λ _p	nm	695	705	715	P _o =40mW
Monitor Current	I _s	mA	-	0.15	-	P _o =40mW, VR(PD)=5V

How to Buy / Contact Info

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