

For current pricing,
please see our website.

CHAPTERS

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SECTIONS

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Optical Amplifiers

Did you know...

All laser diodes are extremely electrostatic sensitive; see page 468 for our selection of antistatic products.



$\lambda = 635 \text{ nm}$, $P = 5 \text{ mW}$, Single Mode Thorlabs L635P005

CAUTION:
ELECTROSTATIC
SENSITIVE



- Ø5.6 mm Package
- 0.6 mW/mA (Typical) Slope Efficiency
- Single Transverse Mode
- MOCVD-Grown with Quantum Well Structures

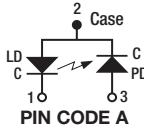
*Metal-Organic Chemical Vapor Deposition

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
L635P005	£ 14.65	€ 17,70	¥ 162.11

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
L635P005	\$ 20.34	\$ 19.93	\$ 19.53	Thorlabs 635 nm, 5 mW

Pin Description		
1	laser cathode	
2	common case	
3	monitor diode anode	



Maximum Ratings ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	7 mW*
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operation Case Temperature	T_{op}	-10 to 50 °C
Storage Temperature	T_{stg}	-40 to 85 °C

*5 mW Typical

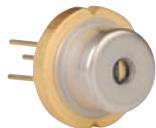
Characteristics ($T_c = 25^\circ\text{C}$, $P = 5 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	—	635 nm	640 nm
Threshold Current	I_{th}	—	25 mA	30 mA
Operating Current	I_{op}	—	35 mA	40 mA
Operating Voltage	V_{op}	—	2.2 V	2.8 V
Beam Divergence (FWHM)	$\theta_{//}$	5°	8°	12°
	θ_{\perp}	30°	32°	40°
Slope Efficiency	η_s	0.4 mW/mA	0.6 mW/mA	0.7 mW/mA
Astigmatism	A_s	—	—	15 μm
Monitor Current	I_m	—	0.15 mA	0.3 mA

Note: All data are presented as typical unless otherwise specified.

$\lambda = 635 \text{ nm}$, $P = 10 \text{ mW}$, Single Mode Hitachi HL6320G

CAUTION:
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SENSITIVE



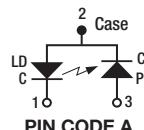
- Ø9 mm Package
- InGaAsP Index Guided Structure
- 10 mW CW Optical Output Power

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
HL6320G	£ 53.07	€ 64,12	¥ 587.39

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
HL6320G	\$ 73.70	\$ 71.49	\$ 70.02	Hitachi 635nm, 10mW

Pin Description		
1	laser cathode	
2	common case	
3	monitor diode anode	



Maximum Ratings ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	10 mW
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operation Case Temperature	T_{op}	-10 to 50 °C
Storage Temperature	T_{stg}	-40 to 85 °C

Characteristics ($T_c = 25^\circ\text{C}$, $P = 10 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	625 nm	635 nm	640 nm
Threshold Current	I_{th}	20 mA	50 mA	75 mA
Operating Current	I_{op}	—	70 mA	95 mA
Operating Voltage	V_{op}	—	—	2.7 V
Beam Divergence (FWHM)	$\theta_{//}$	5°	8°	11°
	θ_{\perp}	25°	31°	37°
Slope Efficiency	η_s	0.3 mW/mA	0.5 mW/mA	0.7 mW/mA
Monitor Current	I_m	0.05 mA	0.17 mA	0.30 mA

Note: All data are presented as typical unless otherwise specified.

$\lambda = 635 \text{ nm}$, $P = 10 \text{ mW}$, Single Mode Hitachi HL6344G

Maximum Ratings ($T_c = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P_o	10 mW
Pulsed Optical Power	$P_o(\text{pulse})$	12 mW*
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operation Case Temperature	T_{op}	-10 to 50 °C
Storage Temperature	T_{stg}	-40 to 85 °C

Pulse Condition: Pulse Width $\leq 1\mu\text{s}$, Duty = 50%

Characteristics ($T_c = 25^\circ\text{C}$, $P = 10 \text{ mW}$)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ_p	630 nm	635 nm	640 nm
Threshold Current	I_{th}	—	20 mA	35 mA
Operating Current	I_{op}	—	35 mA	45 mA
Operating Voltage	V_{op}	—	2.4 V	2.7 V
Beam Divergence (FWHM)	$\theta_{//}$	13°	20°	25°
	θ_{\perp}	13°	17°	25°
Aspect Ratio	$\theta_{\perp}/\theta_{//}$	—	1.2	1.5
Slope Efficiency	η_s	0.5 mW/mA	0.8 mW/mA	1.2 mW/mA
Monitor Current	I_m	0.06 mA	0.14 mA	0.24 mA

Note: All data are presented as typical unless otherwise specified.

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SENSITIVE



CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Ø9 mm Package	—	—	—	—
1.2 (Typical) Aspect Ratio	—	—	—	—
35 mA (Typical) Operating Current	—	—	—	—
TM Mode Oscillation	—	—	—	—
Single Longitudinal Mode	—	—	—	—
12 mW Pulsed Optical Power with a 50% Duty Cycle and a Maximum Pulse Width of 1 μs	—	—	—	—

ITEM #	£* 1-5 PCS	€* 1-5 PCS	RMB* 1-5 PCS
HL6344G	£ 76.11	€ 91,96	¥ 842.43

*For quantities over 5 pieces, please call our local office for pricing.

ITEM #	PRICE 1-5 PCS	PRICE 6-10 PCS	PRICE 11-20 PCS	DESCRIPTION
HL6344G	\$ 105.70	\$ 102.53	\$ 100.42	Hitachi 635 nm, 10 mW