

## λ = 785 nm, P = 50 mW, Single Mode Hitachi HL7851G

### Maximum Ratings (T<sub>c</sub> = 25 °C)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P <sub>o</sub>	50 mW
Pulsed Optical Output Power	P <sub>o</sub> (pulse)	60 mW*
LD Reverse Voltage	V <sub>R(LD)</sub>	2 V
PD Reverse Voltage	V <sub>R(PD)</sub>	30 V
Operation Case Temperature	T <sub>c</sub>	-10 to 60 °C
Storage Temperature	T <sub>stg</sub>	-40 to 85 °C

\*Pulse Condition: Pulse Width ≤ 1 μs, Duty ≤ 50%

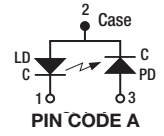
### Characteristics (T<sub>c</sub> = 25 °C, P = 50 mW)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ <sub>p</sub>	775 nm	785 nm	795 nm
Threshold Current	I <sub>th</sub>	-	45 mA	70 mA
Operating Current	I <sub>op</sub>	-	135 mA	165 mA
Operating Voltage	V <sub>op</sub>	-	2.3 V	2.7 V
Beam Divergence (FWHM)	θ//	8°	9.5°	12°
	θ⊥	18°	23°	28°
Monitor Current	I <sub>m</sub>	30 μA	45 μA	150 μA

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



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



- Ø9 mm Package
- MQW Structure
- <5 μm (Typical) Astigmatism @ 5 mW
- 9.5:23 Beam Ellipticity

ITEM #	£*	€*	RMB*
HL7851G	1-5 PCS £ 64.37	1-5 PCS € 77.78	1-5 PCS ¥ 712.52

\*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
HL7851G	\$ 89.40	\$ 87.61	\$ 86.72	Hitachi 785 nm, 50 mW Laser Diode

## λ = 785 nm, P = 70 mW, Single Mode Sanyo DL7140-201S

### Maximum Ratings (T<sub>c</sub> = 25 °C)

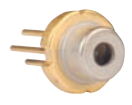
CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P <sub>o</sub>	80 mW*
Pulsed Optical Output Power	P <sub>o</sub> (pulse)	85 mW**
LD Reverse Voltage	V <sub>R(LD)</sub>	2 V
PD Reverse Voltage	V <sub>R(PD)</sub>	30 V
Operation Case Temperature	T <sub>c</sub>	-10 to 60 °C
Storage Temperature	T <sub>stg</sub>	-40 to 85 °C

\*70 mW Typical \*\*Pulse Condition: Pulse Width ≤ 1 μs, Duty ≤ 50%

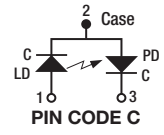
### Characteristics (T<sub>c</sub> = 25 °C, P = 70 mW)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ <sub>p</sub>	775 nm	785 nm	800 nm
Threshold Current	I <sub>th</sub>	-	30 mA	50 mA
Operation Current	I <sub>op</sub>	-	100 mA	140 mA
Operating Voltage	V <sub>op</sub>	-	2.0 V	2.8 V
Beam Divergence (FWHM)	θ//	6°	8°	10°
	θ⊥	15°	17°	20°
Slope Efficiency	η <sub>s</sub>	0.6 mW/mA	1.0 mW/mA	1.4 mW/mA
Monitor Current	I <sub>m</sub>	0.1 mA	0.25 mA	0.6 mA

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



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



- Ø5.6 mm Package
- Single Mode Index-Guided Structure
- Operation Temperature of 60 °C @ 70 mW (CW)
- 10 μm (Max) Astigmatism @ 70 mW

ITEM #	£*	€*	RMB*
DL7140-201S	1-5 PCS £ 29.31	1-5 PCS € 35.41	1-5 PCS ¥ 324.38

\*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
DL7140-201S	\$ 40.70	\$ 39.48	\$ 38.67	Sanyo 785 nm, 70 mW

## λ = 785 nm, P = 90 mW, Single Mode Thorlabs L785P090

### Maximum Ratings (T<sub>c</sub> = 25 °C)

CHARACTERISTIC	SYMBOL	MAX RATING
Optical Output Power (CW)	P <sub>o</sub>	100 mW*
LD Reverse Voltage	V <sub>R(LD)</sub>	2 V
PD Reverse Voltage	V <sub>R(PD)</sub>	30 V
Operation Case Temperature	T <sub>c</sub>	-10 to 70 °C
Storage Temperature	T <sub>stg</sub>	-40 to 85 °C

\*90 mW Typical

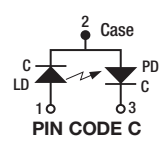
### Characteristics (T<sub>c</sub> = 25 °C, P = 90 mW)

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Lasing Wavelength	λ <sub>p</sub>	775 nm	785 nm	795 nm
Threshold Current	I <sub>th</sub>	-	35 mA	60 mA
Operating Current	I <sub>op</sub>	-	120 mA	160 mA
Operating Voltage	V <sub>op</sub>	1.5 V	2.0 V	2.3 V
Beam Divergence (FWHM)	θ//	8°	9°	10°
	θ⊥	15°	16°	20°
Slope Efficiency	A <sub>s</sub>	0.7 W/A	1.1 W/A	1.4 W/A
Monitor Current	η <sub>s</sub>	0.3 mA	0.5 mA	1.0 mA

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



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



- Ø5.6 mm Package
- 90 mW (Typical) Optical Output Power (CW)
- 1.1 W/A (Typical) Slope Efficiency

ITEM #	\$	£	€	RMB	DESCRIPTION
L785P090	\$ 41.45	£ 29.84	€ 36.06	¥ 330.36	Thorlabs 785 nm, 90 mW

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