

## $\lambda = 635 \text{ nm}$ , $P = 5 \text{ mW}$ , Single Mode Sanyo DL3148-025

### Absolute Maximum Ratings ( $T_C = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING
Optical Output Power	$P_O$	6 mW
LD Reverse Voltage	$V_{R(LD)}$	2 V
PD Reverse Voltage	$V_{R(PD)}$	30 V
Operating Temperature	$T_{op}$	-10 to +40 °C
Storage Temperature	$T_{stg}$	-40 to +85 °C

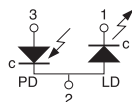
### Characteristics ( $T_C = 25^\circ\text{C}$ , $P = 5 \text{ mW}$ )

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Threshold Current	$I_{th}$	-	20 mA	35 mA
Operation Current	$I_{op}$	-	30 mA	45 mA
Operation Voltage	$V_{op}$	-	2.2 V	2.4 V
Lasing Wavelength	$\lambda_p$	630 nm	635 nm	640 nm
Beam Divergence (FWHM)	$\theta//$	6°	8°	10°
	$\theta\perp$	25°	30°	35°
Astigmatism	$A_s$	-	8 $\mu\text{m}$	-
Monitor Current	$I_m$	0.08	0.2	0.5

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

### Pin Description

- 1 laser cathode
- 2 common case
- 3 monitor diode anode



PIN CODE 5A



CAUTION: ELECTROSTATIC SENSITIVE

- $\varnothing 5.6 \text{ mm}$  Package
- 20 mA (Typ.) Threshold Current
- 2.2V (Typ.) Operating Voltage
- Laser Pointer Applications

ITEM#	£*	€*	RMB*
	1-5 PCS	1-5 PCS	1-5 PCS
DL3148-025	£ 12.63	€ 16,29	¥ 154.46

\*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
DL3148-025	\$ 18.30	\$ 15.56	\$ 12.27	Sanyo 635 nm, 5mW

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

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

CHARACTERISTIC	SYMBOL	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	$T_C$	-10 to 50 °C
Storage Temperature	$T_{stg}$	-40 to 85 °C

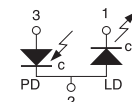
### Characteristics ( $T_C = 25^\circ\text{C}$ , $P = 10 \text{ mW}$ )

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Threshold Current	$I_{th}$	20 mA	50 mA	75 mA
Operation Current	$I_{op}$	-	70 mA	95 mA
Operation Voltage	$V_{op}$	-	-	2.7 V
Lasing Wavelength	$\lambda_p$	625 nm	635 nm	640 nm
Beam Divergence (FWHM)	$\theta//$	5°	8°	11°
	$\theta\perp$	25°	31°	37°
Monitor Current	$I_m$	0.05 mA	0.17 mA	0.30 mA

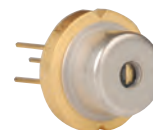
Note: All data is presented as typical unless otherwise specified.

### Pin Description

- 1 monitor diode anode
- 2 common case
- 3 laser cathode



PIN CODE 9A



CAUTION: ELECTROSTATIC SENSITIVE

- $\varnothing 9 \text{ mm}$  Package
- InGaAsP Index Guided Structure
- 10 mW CW Optical Output Power

ITEM#	£*	€*	RMB*
	1-5 PCS	1-5 PCS	1-5 PCS
HL6320G	£ 49.34	€ 63,64	¥ 603.50

\*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	\$ 71.50	\$ 60.78	\$ 47.91	Hitachi 635nm, 10mW

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

### Absolute Maximum Ratings ( $T_C = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING
Optical Output Power (CW)	$P_O$	10 mW
Pulse Optical Output 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	$T_C$	-10 to +50 °C
Storage Temperature	$T_{stg}$	-40 to +85 °C

Pulse condition: Pulse width  $\leq 1 \mu\text{s}$ , duty = 50%

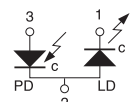
### Characteristics ( $T_C = 25^\circ\text{C}$ , $P = 10 \text{ mW}$ )

CHARACTERISTIC	SYMBOL	MIN	TYP.	MAX
Threshold Current	$I_{th}$	-	20 mA	35 mA
Operation Current	$I_{op}$	-	35 mA	45 mA
Operation Voltage	$V_{op}$	-	2.4 V	2.7 V
Lasing Wavelength	$\lambda_p$	630 nm	635 nm	640 nm
Beam Divergence (FWHM)	$\theta//$	13	17°	25°
	$\theta\perp$	13	20°	25°
Aspect Ratio	$\theta\perp/\theta//$	-	1.2	1.5
Slope Efficiency	$\eta_s$	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

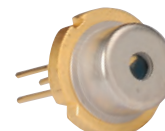
Note: All data is presented as typical unless otherwise specified.

### Pin Description

- 1 monitor diode anode
- 2 common case
- 3 laser cathode



PIN CODE 9A



See Our Selection of VCSEL Laser Diodes Starting on Page 1043

- $\varnothing 9 \text{ mm}$  Package
- 1.2 (Typ.) Aspect Ratio
- 35 mA (Typ.) Operating Current
- TM Mode Oscillation
- Single Longitudinal Mode

CAUTION: ELECTROSTATIC SENSITIVE

ITEM#	£*	€*	RMB*
	1-5 PCS	1-5 PCS	1-5 PCS
HL6344G	£ 70.81	€ 91,33	¥ 866.10

\*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	\$ 102.62	\$ 92.36	\$ 71.84	Hitachi 635 nm, 10 mW