

HL63172MG Specification

1. Description

The HL63172MG is 0.63 μm band AlGaInP laser diodes with a multi-quantum well (MQW) structure. It is suitable as light sources for laser levelers, laser scanners and optical equipment for measurement. This product should be supplied from Oclaro to Vertex only.

2. Features

- Visible light output: 639 nm Typ
- Single transverse mode
- Optical output power: 20 mW CW
- Low operating current: 65 mA Typ
- Low operating voltage: 2.5 V Max
- Operating temperature: +50°C
- TE mode oscillation

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3. Absolute maximum ratings (Tc=25±3°C, unless otherwise specified)

No.	Items	Symbols	Ratings	Unit	Note
1	Optical output power	P _o	25	mW	
2	LD reverse voltage	V _{R(LD)}	2	V	
3	PD reverse voltage	V _{R(PD)}	30	V	
4	Operating temperature	T _{opr}	-10 to +50	°C	
5	Storage temperature	T _{stg}	-40 to +85	°C	

4. Optical and Electrical Characteristics (Tc=25±3°C, unless otherwise specified)

No.	Items	Symbols	Test condition	Limit			Unit	Note
				Min.	Typ.	Max		
1	Threshold current	I _{th}	-	-	45	60	mA	
2	Operating current	I _{OP}	P _o =20mW	-	65	80	mA	
3	Operating voltage	V _{OP}	P _o =20mW	-	2.3	2.5	V	
4	Beam divergence parallel to the junction	θ _{//}	P _o =20mW, FWHM	6	9	12	°	
5	Beam divergence perpendicular to the junction	θ _⊥	P _o =20mW, FWHM	16	21	24	°	
6	Lasing wavelength	λ _P	P _o =20mW	630	639	643	nm	
7	Monitor current	I _s	P _o =20mW, V _{R(PD)} =5V	0.1	0.2	0.4	mA	

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5. Life time

No.	Items	Symbols	Test condition	Limit			Unit	Note
				Min.	Typ.	Max		
1	Expected failure probability	F(t)	Po=20mW, Tc=50°C APC op., t=1000h	-	-	1	%	
2	Failure criteria	ΔI_o	Io increase from initial value at Tc=25°C	-	-	20	%	

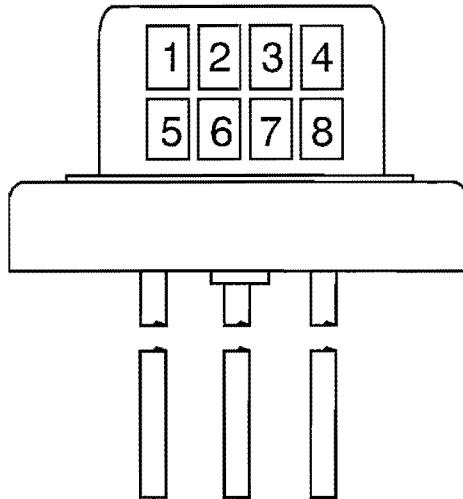
6. Mechanical Specification

No.	Items	Symbols	Test condition	Limit			Unit	Note
				Min.	Typ.	Max		
	Package Dimension		See outline figure					

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7. Mark layout

The marking code on the side of cap is specified by the following.



1st character: "H" (Fixed code for this product)

2nd character: "D" (Fixed code for this product)

3rd character: Year code shows the last digit of the year (ex. "3" means the year of 2013)

4th character: Month code shows the following table. (ex. "4" means the month of Apr)

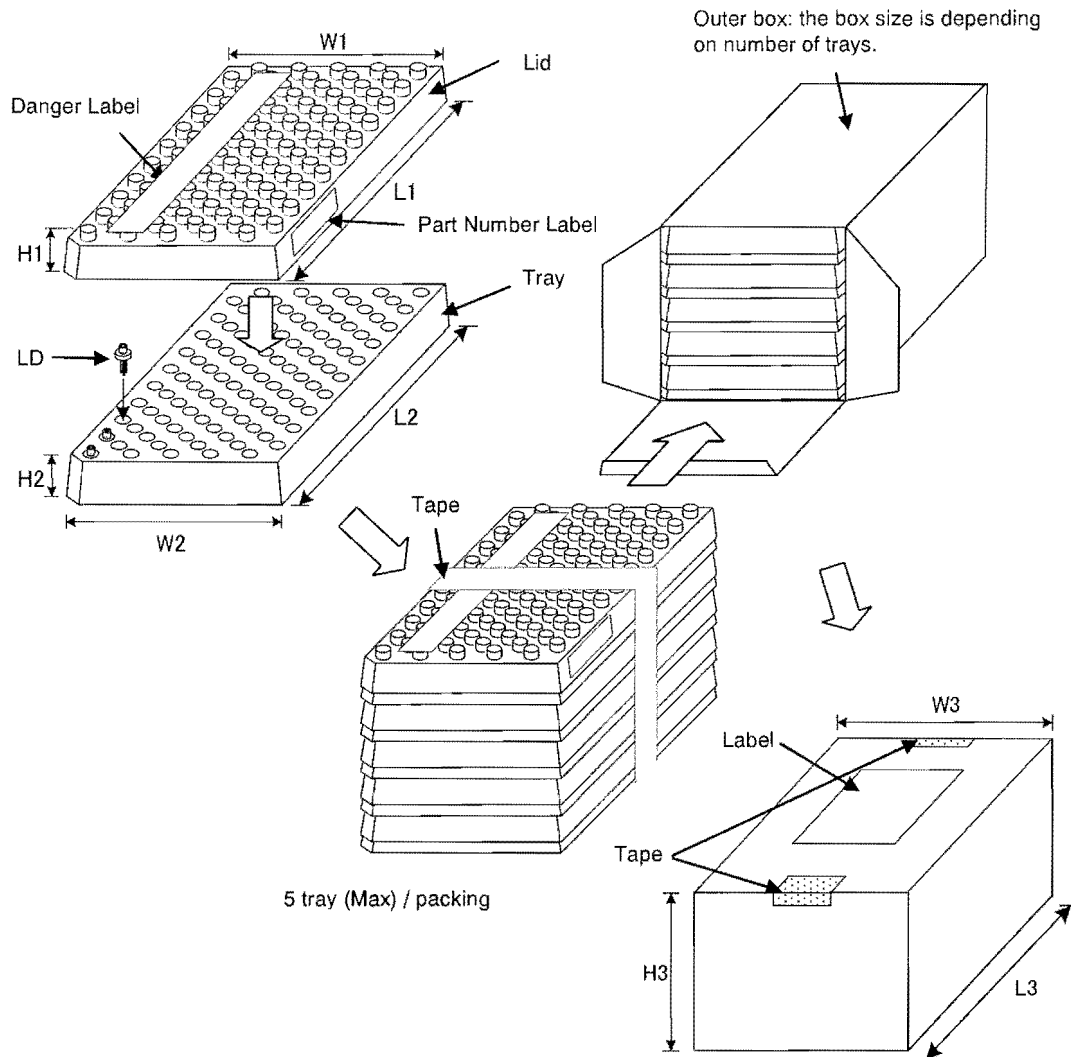
5th to 8th character: Oclaro internal management code

Table-1) the reference table for month code

Month	1	2	3	4	5	6	7	8	9	10	11	12
Code	A	B	C	D	E	F	G	H	J	K	L	M

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8. Packing Specification



5.6mm ϕ LD Package Packing specification

Unit (mm)

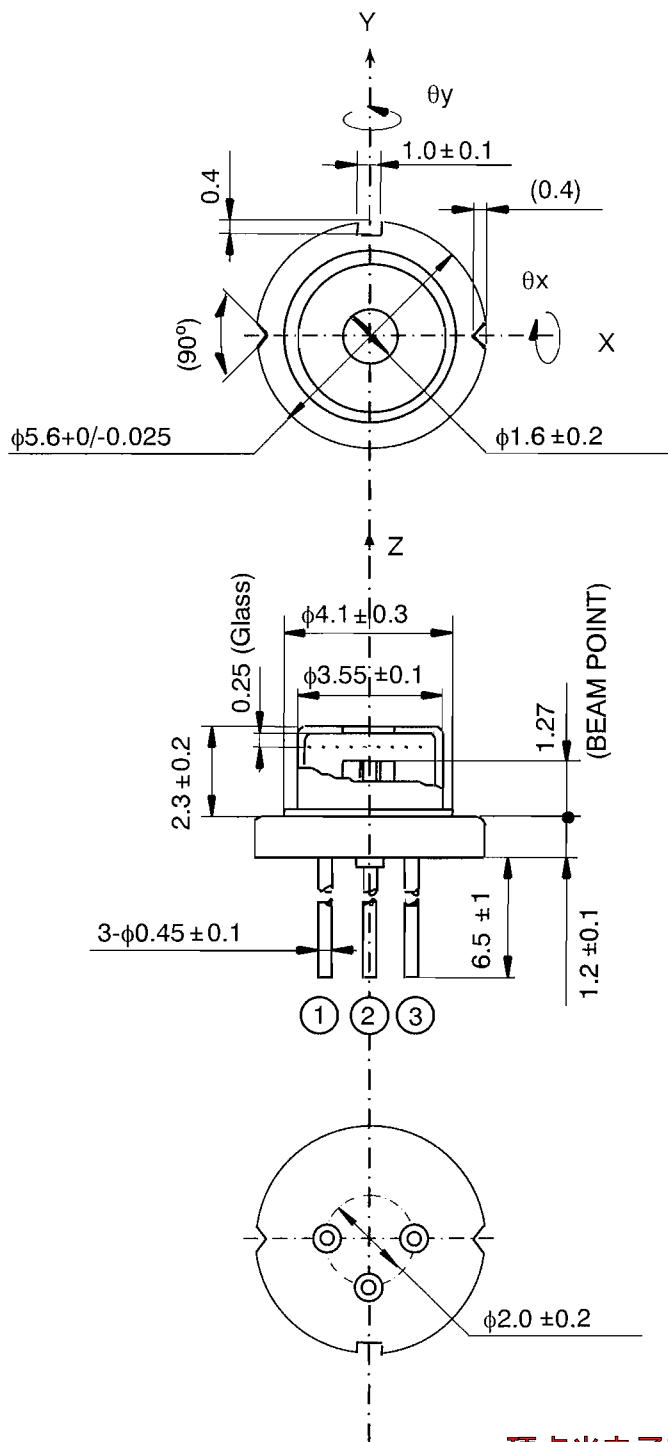
		A *1	B *1	C *1	D *1	E *1
Maximum LD quantity/ a tray		100				
Tray Size	Lid	W1xL1xH1				
	Tray	W2xL2xH2				
Maximum LD quantity (pcs)/ a box		100	200	300	400	500
Number of trays (pcs)/ a box		1	2	3	4	5
Outer box size(mm)	W3xL3xH3	70x110x20	70x110x35	70x110x49	70x110x64	70x110x79
Barcode Label *2		Part number, Quantity, Lot number				

*1 The outer box size is outfitted with A to E depending on number of trays.

*2 The label position and format are subject to change without notice.

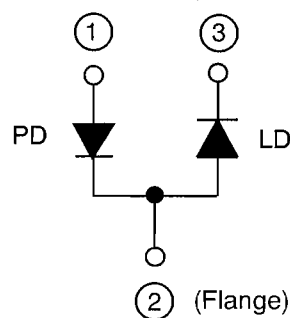
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9. Outline



- Mechanical dimension
Beam point (Ref. Flange Center)
 $|\Delta X|, |\Delta Y|, |\Delta Z| \leq 80\mu\text{m}$
 $|\Delta\phi_x|, |\Delta\phi_y| \leq 2^\circ$
- Optical Beam Point 1.35 mm

Internal circuit



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Units: mm