

GL7199M4(A3GL7199M4)

Red Laser Diode

Red Laser Diode

■ Features

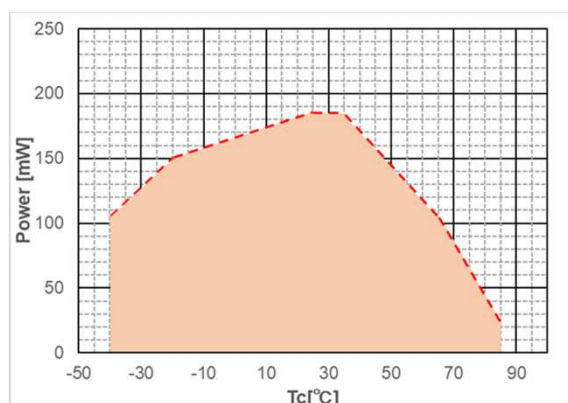
- (1) Wavelength : 639 nm(Typ.)
- (2) Optical power output :
CW 180mW (Tc=25°C)
- (3) Oscillation transverse mode : Single mode
- (4) $\Phi 5.6$ mm CAN package

■ Applications

- (1) Display
- (2) Barcode scanner
- (3) Laser sensor
- (4) other application

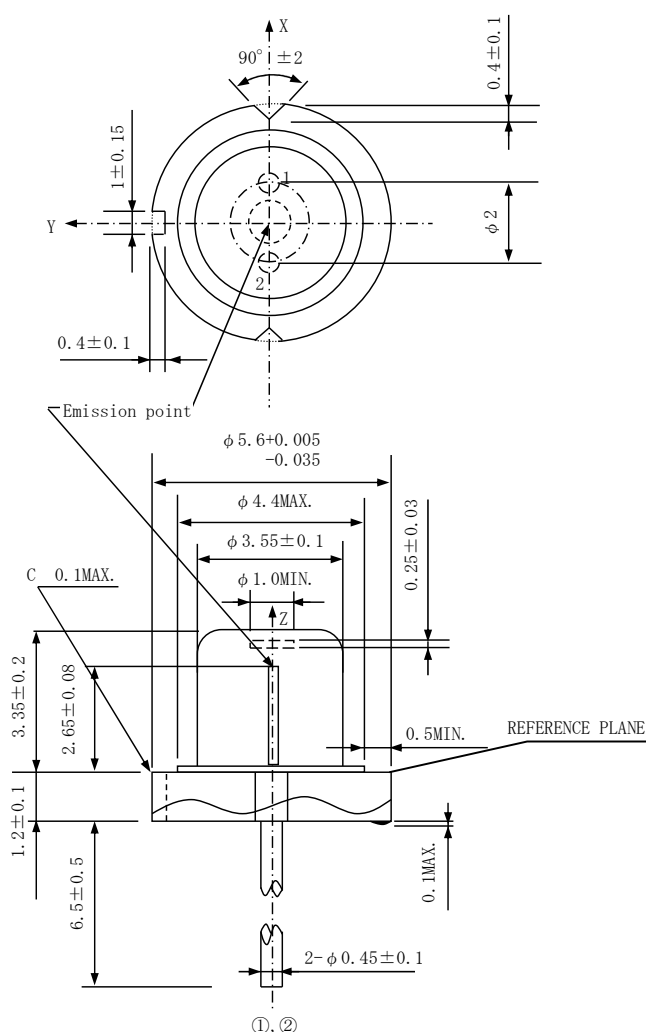
■ Absolute Maximum Ratings

Parameter		Symbol	Value	Unit
Optical power output	CW (Tc=-40°C)	Po	105	mW
	CW (Tc=-20°C)	Po	150	mW
	CW (25°C ≤ Tc ≤ 35°C)	Po	185	mW
	CW (Tc=65°C)	Po	105	mW
	CW (Tc=85°C)	Po	24	mW
Reverse voltage		Vr1	2	V
Operating temperature (Case temperature)		Top(c)	-40 ~ +85	°C
Storage temperature		Tstg	-40 ~ +105	°C
Soldering temperature (Note 2)		Tsld	350	°C

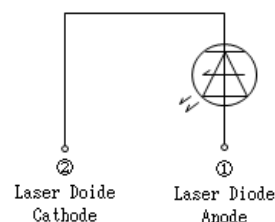


■ Outline Dimensions

(Unit: mm)



[Terminal connection]



(Notice)

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■ Specifications

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current	I _{th}	—	—	55	80	mA
Operating current	I _{op}	P _o =180mW	—	215	250	mA
Operating voltage	V _{op}		2.0	2.65	3.0	V
Wavelength (Note 4)	λ _p		635	639	643	nm
Half Intensity Angle(Parallel) (Note 2, 3)	θ _{//}		6	8	10	°
Half Intensity Angle(Perpendicular) (Note 2, 3)	θ _⊥		10	15	18	°
Misalignment angle (Parallel) (Note 3)	Δθ _{//}		−5	—	5	°
Misalignment angle (Perpendicular) (Note 3)	Δθ _⊥		−5	—	5	°
Differential efficiency	η _d	$\frac{150\text{mW}}{I(180\text{mW}) - I(30\text{mW})}$	0.9	1.15	—	mW/mA

(Note 1) Initial value, Continuous Wave Operation

(Note 2) Angle of 50% peak intensity (Full angle at half-maximum)

(Note 3) Parallel to the junction plane(X-Z plane)
Perpendicular to the junction plane(Y-Z plane)

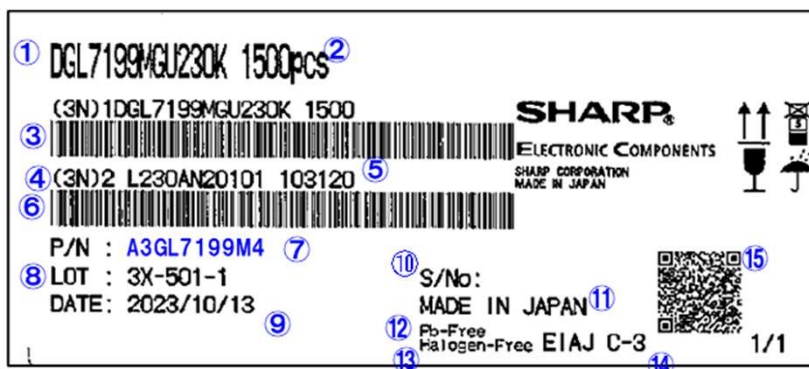
(Note 4) It is based on method for measurement of light spectrum analyzer Q8344A
made by Advantest Corp. of Sharp Corp. property.

■ Label information

(1) A label on the aluminum bag



(2) A label on the packing case



◆ Label description

- ① : Sharp internal Part No.
- ② : Quantity
- ③ : 1st bar code:
Sharp internal Part No. + Quantity
- ④ : Serial No (Sharp internal use)
- ⑤ : EMS internal code (Sharp:103120)
- ⑥ : 2nd bar code:
Serial No + EMS internal code
- ⑦ : Customer Part No.
- ⑧ : Shipment lot + Rank ☆ : 1~4
- ⑨ : Printing date
- ⑩ : Standard
- ⑪ : Country of origin
- ⑫ : Pb-free display
- ⑬ : Halogen-free display
- ⑭ : Label design
- ⑮ : 2-dimensional bar code
- ⑯ : Box fraction

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 - (2) intentional act, negligence or wrong/poor handling.
 - (3) equipment which Sharp products are connected to or mounted in.
 - (4) disassembling, reforming or changing Sharp products.
 - (5) installation problem.
 - (6) act of God or other disaster (natural disaster, fire, flood, etc.)
 - (7) external factors (abnormal voltage, abnormal electromagnetic wave, fire, etc.)
 - (8) special environment (factory, coastal areas, hot spring area, etc.)
 - (9) phenomenon which cannot be foreseen based on the practical technologies at the time of shipment.
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