

# Egismos DATASHEET

## 655m Compact Laser Diode Modules Key features

Visible light  $\lambda = 655\text{nm}$   
 Output power = 7mW  
 Package type = 5.6mm $\phi$   
 High reliability  
**Applications**

Laser Pointer & General Purpose Red Laser Light Source  
 Bar Code Reader & High Precision Measuring Instruments  
 Laser Module & High Precision Engineering Instruments

### Laser Diode Solutions

RS-D6-7-655-7 is a MOCVD grown 655nm band InGaAlP laser diode. It's an attractive light source, with a typical light output power of 7mW. It's suitable for use as high reliability laser diode in a wide range of industrial application.



RS-D6-7-655-7

## Electrical and Optical Characteristics at $T_c = 25^\circ\text{C}$

| Item                    | Symbols                        | Min. | Typ. | Max. | Unit          | Condition                                    |
|-------------------------|--------------------------------|------|------|------|---------------|--|
| Threshold Current       | $I_{th}$                       | -    | 20   | 25   | mA            |  |
| Operating Current       | $I_{op}$                       | -    | 25   | 35   | mA            | $P_o = 7\text{mW}$                           |
| Operating Voltage       | $V_{op}$                       | -    | 2.2  | 2.5  | V             | $P_o = 7\text{mW}$                           |
| Peak Wavelength         | $\lambda_p$                    | 650  | 655  | 660  | nm            | $P_o = 7\text{mW}$                           |
| Differential efficiency | $\eta$                         | 0.6  | 0.9  | 1.2  | MW/mA         | $P_o = 2 \sim 4\text{mW}$                    |
| Beam Divergence         | $\Theta_{//}$                  | 6    | 8    | 12   | deg           | $P_o = 4\text{mW}$                           |
|                         | $\Theta_{\perp}$               | 25   | 28   | 32   | deg           | $P_o = 4\text{mW}$                           |
| Beam Angle              | $\Delta\Theta_{//}$            | -3   | 0    | +3   | deg           | $P_o = 4\text{mW}$                           |
|                         | $\Delta\Theta_{\perp}$         | -3   | 0    | +3   | deg           | $P_o = 4\text{mW}$                           |
| Monitor Current         | $I_m$                          | 0.1  | 0.2  | 0.3  | mA            | $P_o = 7\text{mW}$ ,<br>$V_{RD} = 0\text{V}$ |
| Emission point accuracy | $\Delta X, \Delta Y, \Delta Z$ | -80  | 0    | +80  | $\mu\text{m}$ | $P_o = 5\text{mW}$ ,                         |

**Egismos**

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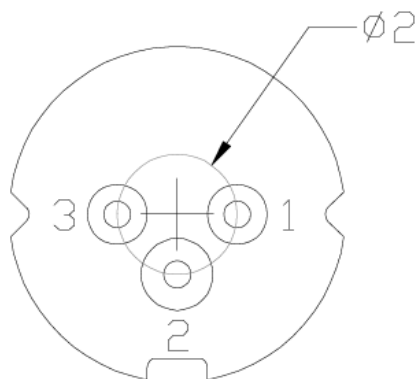
## Absolute Maximum Rating at Tc=25°C

| Items               | Symbols         | Values  | Unit |
|---------------------|-----------------|---------|------|
| Light output power  | Po              | 7       | mW   |
| Reverse voltage(LD) | V <sub>RL</sub> | 2       | V    |
| Reverse volgate(PD) | V <sub>RD</sub> | 30      | V    |
| Forward current(PD) | I <sub>FD</sub> | 10      | mA   |
| Case Temperature    | Tc              | -10~+70 | °C   |
| Storage Temperature | Ts              | -40~+85 | °C   |

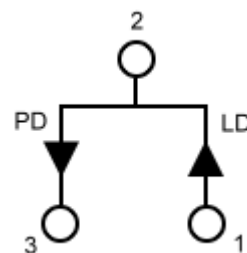


RS-D6-7-655-7

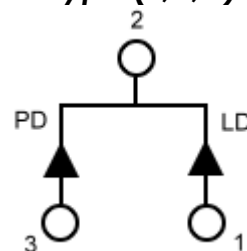
## Electrical Connection



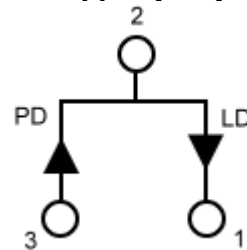
## Package Type



**P type (P,U,C)**



**M type (M,R)**



**N type (N,L,A)**

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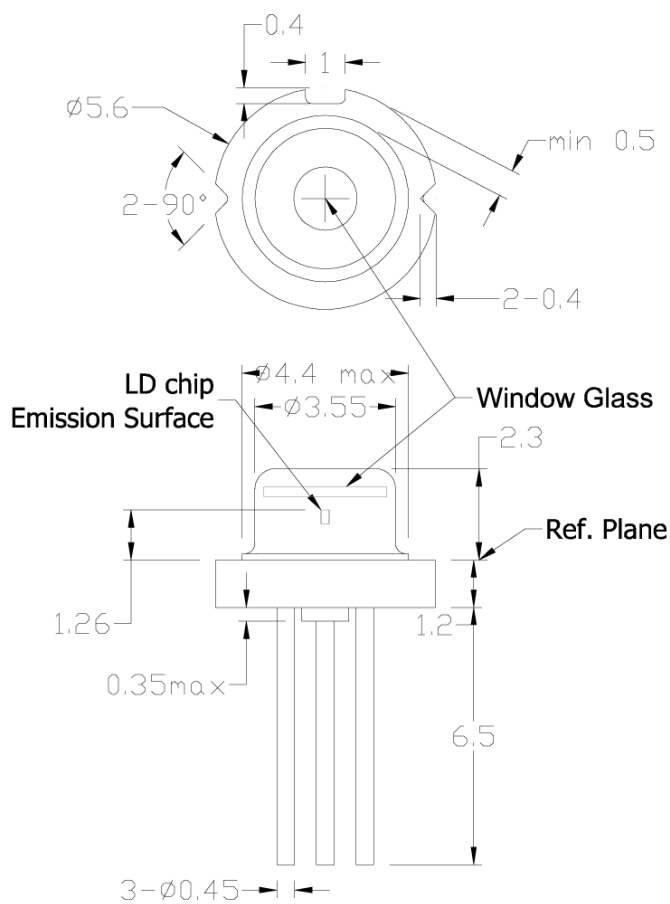
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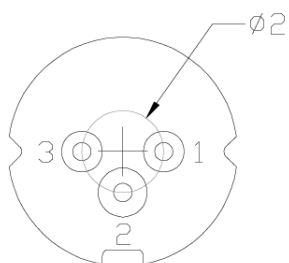
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## Laser Diode Package Drawing



RS-D6-7-655-7



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