

Egismos DATASHEET

830m Compact Laser Diode Modules Key features

Visible light $\lambda = 830\text{nm}$
Output power = 40mW
Package type = 9.0mm ϕ
High reliability

Applications

General Purpose Infrared Red Laser Light Source
Night Vision Application & Infrared Red Laser Module for Industry Application
Thermal Device & High Precision Engineering Instruments



PS-D9-6-830-40

Laser Diode Solutions

PS-D9-6-830-40 is a MOCVD grown 830nm band laser diode. It's an attractive light source, with a typical light output power of 40mW. It's suitable for use as high reliability laser diode in a wide range of industrial application.

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

| Item | Symbols | Min. | Typ. | Max. | Unit | Condition |
|-------------------|------------------|------|------|------|---------------|--|
| Threshold Current | I_{th} | - | 40 | 70 | mA | - |
| Slope efficiency | η_s | 0.4 | 0.5 | 0.9 | mW/mA | $24(\text{mW}) / (I(32\text{mW}) - I(8\text{mW}))$ |
| Lasing Wavelength | λ_p | 820 | 830 | 840 | nm | $P_o = 40\text{mW}$ |
| Asigmatism | A_s | - | 5 | - | μA | $P_o = 4\text{mW}$, $NA = 0.4$ |
| Beam Divergence | $\Theta_{//}$ | 7 | 10 | 14 | deg | $P_o = 40\text{mW}$, FWHM |
| | Θ_{\perp} | 18 | 22 | 32 | deg | $P_o = 40\text{mW}$, FWHM |
| Monitor Current | I_s | 20 | 100 | 130 | μA | $P_o = 4\text{mW}$, $V_{RD} = 5\text{V}$ |

Egismos

<http://www.egismos.com>

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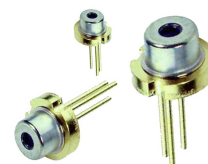
E-Mail: sales@egismos.com

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Absolute Maximum Rating at Tc=25°C

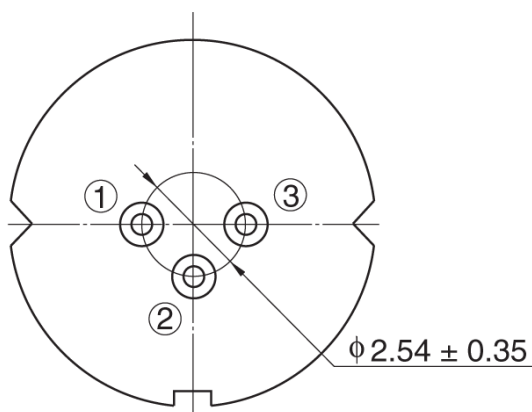
| Items | Symbols | Values | Unit |
|----------------------------|-----------------|---------|------|
| Optical output power | Po | 40 | mW |
| Pulse optical output power | Po | 50 | mW |
| Reverse voltage(LD) | V _{RL} | 2 | V |
| Reverse volgate(PD) | V _{RD} | 30 | V |
| Case Temperature | Tc | -10~+60 | °C |
| Storage Temperature | Ts | -40~+85 | °C |

Note:Pluse condition:Pulse width≤1μs,duty≤50%

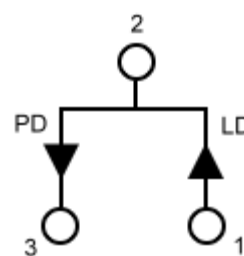


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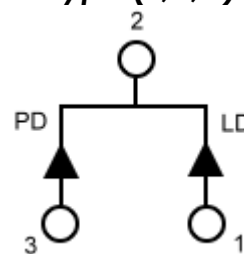
Electrical Connection



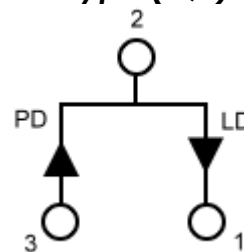
Package Type



P type (P,U,C)



M type (M,R)



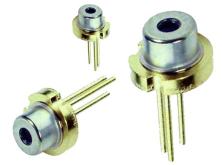
N type (N,L,A)

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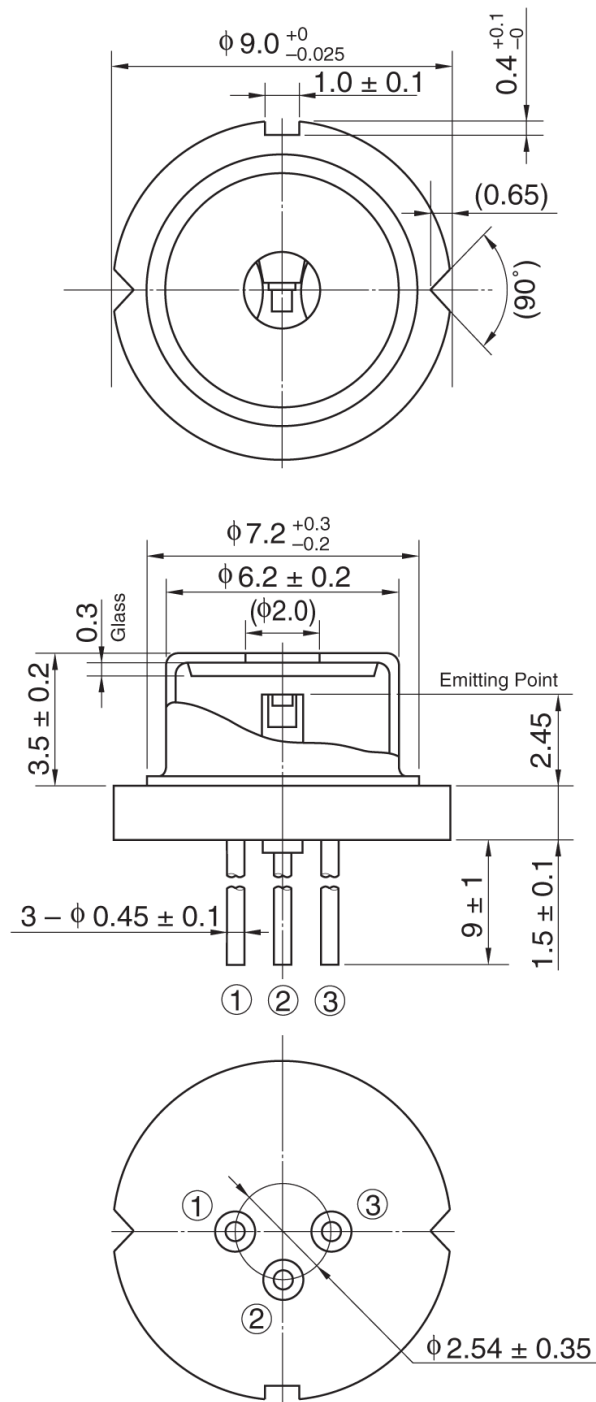
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EGISMOS *DATASHEET*

Laser Diode Package Drawing



PS-D9-6-830-40



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