# Lead-Free Aspherical Glass Lens with High Coupling Efficiency for Optical Communication Corresponding to Wide-angle Laser Diode (LD) <br> NEW 2011 

## FLGS3 Series

Coupling efficiency improved approx. $7 \%$ with $1 \times 1 \mathrm{~mm}$ square in industry smallest size maintained.


## Features

- Expanded aspherical lens aperturture contributes around $7 \%$ performance improvement in terms of coupling efficiency, this is based on high refractive index glass and original nano machining process.
- Dielectric multilayered AR (Anti Reflection) coating will be cover from O-Band to L-Band which is popular wave length for optical communication, and optional for visible light.
- Compliant with RoHS 6.
- One side Au (Gold) plating is also optional, it's easy for brazing (soldering) assembly.


## Applications

- Optical communication modules
- Micro/pico projectors


## Typical Specifications

| Items | Specifications |
| :--- | :---: |
| Wavelength (Standard) | $1310 \mathrm{~nm}, ~ 1550 \mathrm{~nm}$ |
| Effective NA | $0.65 \times 0.13$ (About $30 \%$ NA expand commared with current products) |
| Magnification | $\times 5$ |
| Focal length | 0.528 mm |
| Object-to-image distance | 3.97 mm |
| Wave aberration(RMS) | $0.047 \lambda$ |
| Transmissivity | $98 \%(1310 \mathrm{~nm}, 1550 \mathrm{~nm})$ |
| Operating temperature | $-40^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$ |
| Storage temperature | $-40^{\circ} \mathrm{C} \sim+100^{\circ} \mathrm{C}$ |

Dimensions


## Precautions when handling our products

1. For the export of products which are controlled items subject to foreign and domestic export laws and regulations, you must obtain approval and/or follow the formailities of such laws and regulations.
2. Products must not be used for military and/or antisocial purposes such as terrorism, and shall not be supplied to any party intending to use the products for such purposes.
3. Unless provided otherwise, the products have been designed and manufactured for application in equipment and devices which are sold to end-users in the market, such as AV (audio visual) equipment, home electronic equipment, office and commercial electronic equipment, information and communication equipment or amusement equipment. The products are not intended for use in, and must not be used for, any application of nuclear equipment, driving control equipment for aerospace or any other unauthorized use
burglar alarm equipment, disaster prevention equipment and unders applications involving high levels of safety and liability such as medical equipment system on the applicability. Also, implement a fail-safe design, protection circuit, redundant circuit, malfunstios representative and/or evaluate the total complete system for safety and reliability of the total system.
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