

DMS VCSEL Illuminator

AT01 Series



Features

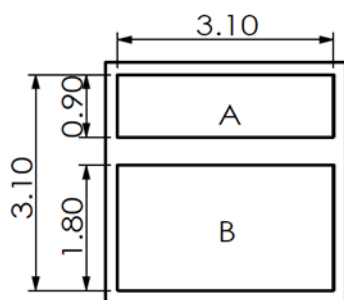
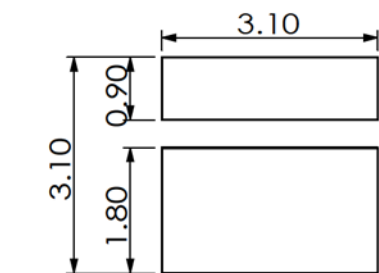
- Automotive grade glass diffuser
- Wide field of view up to 160°
- Standard package 3535

Applications

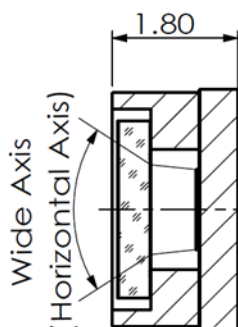
- Driver Monitoring System
- Face Recognition
- Lighting
- 3D Sensing

Product Dimensions (mm)

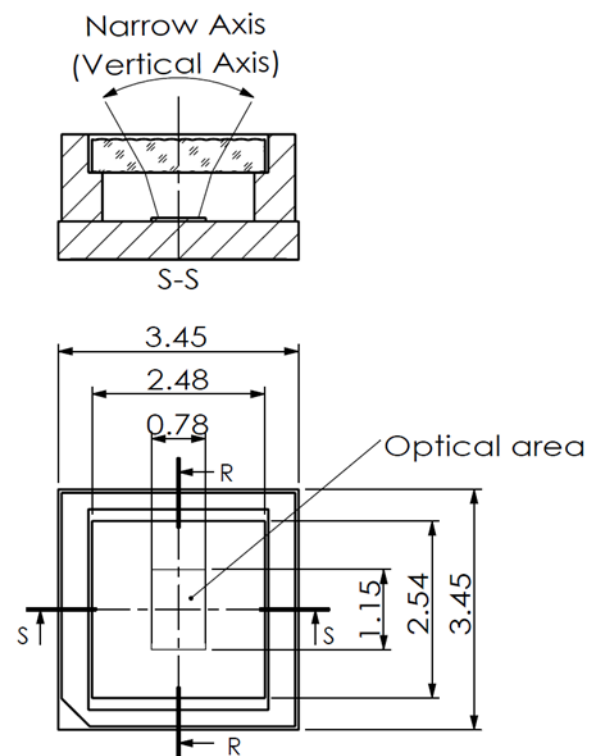
Recommended Soldering Pad :



A: Anode
B: Cathode



R-R



Remark: The structure drawing is for reference only. Please feel free to contact us for any special requirements.

Product Specifications (Prototype)

| | |
|-----------------------|---------------------------|
| Product Code | (Typical Customization) |
| Part No. ¹ | FL-AT01-3-940-HxV |
| Test Condition | 300μs, 300Hz, 9% DC, 25°C |

| Optical Data | Unit | Value |
|---|---------|--------|
| Centroid Wavelength λ | nm | 940±5 |
| Output Power ² | W | > 3 |
| FOV @ FWHM (Typical, Horizontal x Vertical) | ° | 120x20 |
| Spectral Width FWHM | nm | < 3 |
| Wavelength Temp. Coefficient | nm / °C | 0.08 |

| Electrical Data | | |
|-----------------------------|-----|-------|
| Threshold Current I_{th} | A | < 0.5 |
| Operating Current I_{op} | A | 3.5 |
| Forward Voltage V_{op} | V | < 2.5 |
| Slope efficiency | W/A | > 0.8 |
| Power conversion efficiency | % | > 32 |

| Other Data | | |
|---------------------|----|---------|
| Storage Temperature | °C | -40~105 |

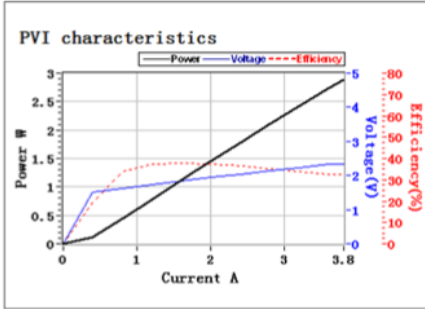
¹ Part No. = Brand Code - Series - Power - Centroid Wavelength - FOV (Horizontal x Vertical).

² A non-condensing environment is required for storage and operation below ambient dew point.



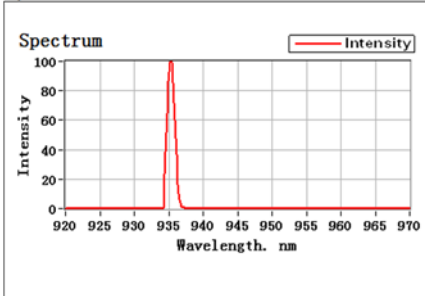
Product Test Results (Prototype)

L-I Test



| | |
|-----------------|-------|
| Peak Pop(W) | 2.88 |
| Iop(A) | 3.80 |
| Ith(A) | 0.29 |
| Slope Eff.(W/A) | 0.83 |
| Average Pop(W) | 0.26 |
| Eff.@Iop(%) | 32.46 |
| V @Iop(V) | 2.33 |
| Temp.(°C) | 25.00 |

Spectrum Test



| | |
|-------------------------|--------|
| Peak wavelength(nm) | 935.34 |
| Centroid wavelength(nm) | 935.47 |
| FWHM(nm) | 1.36 |
| FW90% Energy(nm) | 1.94 |

