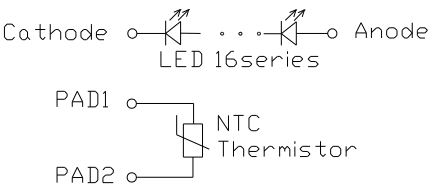
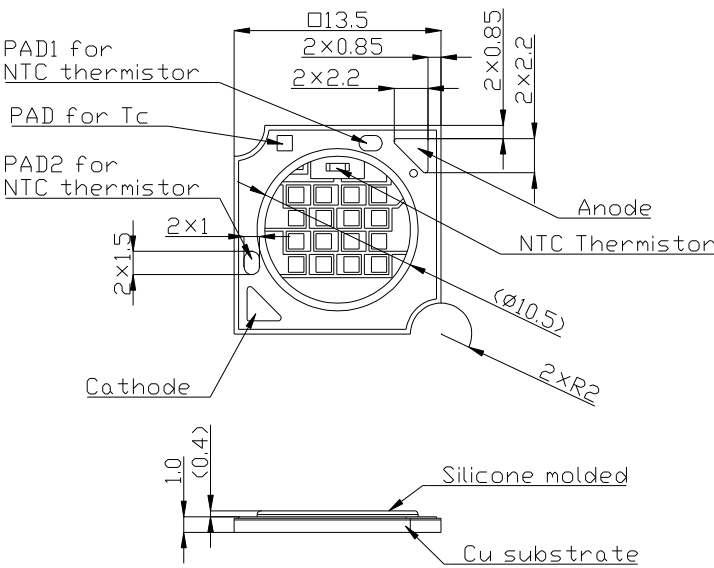


PRELIMINARY

# COB850DS-16100S

COB type LED

## Outline and Internal Circuit



(Unit : mm)

## Features

- Chip Material : AlGaAs
- Chip Dimension : 1mm \* 1mm
- Number of Chips : 16pcs
- Peak Wavelength : 850nm typ.
- Lead Frame Die : Aluminum
- Lens : Silicone resin

## Absolute Maximum Ratings (Tc=25°C)

| Item                  | Symbol | Ratings    | Unit |
|-----------------------|--------|------------|------|
| Power Dissipation     | PD     | 70         | W    |
| Forward Current       | IF     | 1000       | mA   |
| Pulse Forward Current | IFP    | 5000       | mA   |
| Reverse Voltage       | VR     | 80         | V    |
| Junction Temperature  | Tj     | 120        | °C   |
| Operating Temperature | Topr   | -40 ~ +85  | °C   |
| Storage Temperature   | Tstg   | -40 ~ +100 | °C   |
| Soldering Temperature | TSOL   | 250        | °C   |

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

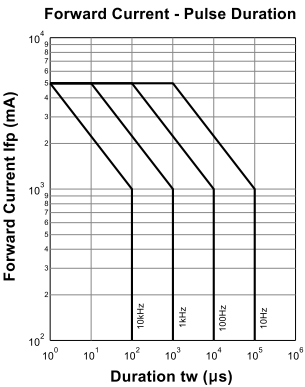
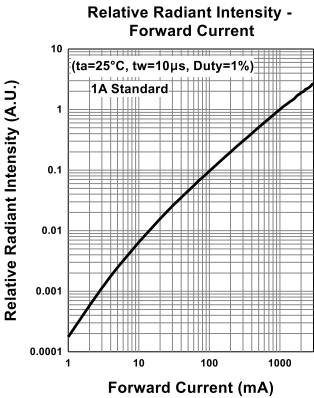
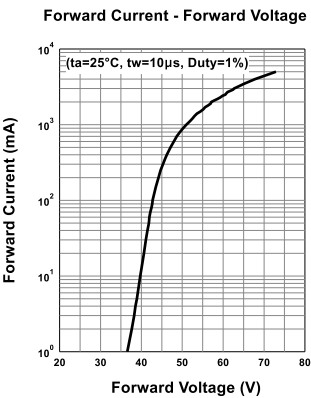
‡Soldering condition : Refer to technical support information on the website.

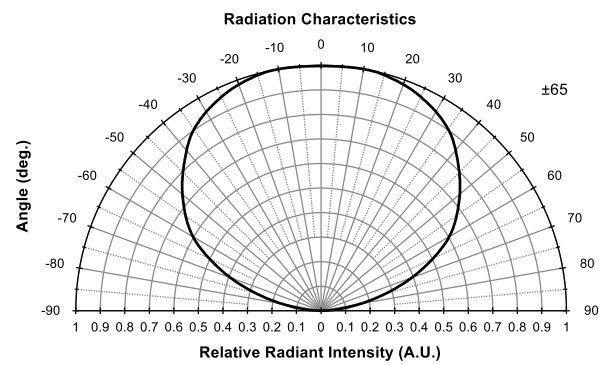
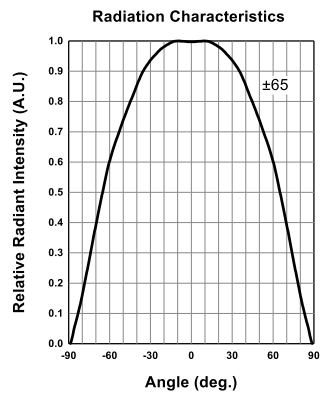
## Optical and Electrical Characteristics (Tc=25°C)

| Parameter            | Symbol          | Min | Typ  | Max  | Unit | Test Condition  |
|----------------------|-----------------|-----|------|------|------|-----------------|
| Forward Voltage      | VF              |     | 51   | (70) | V    | IF=1A<br>t=20ms |
| Reverse Current      | IR              |     |      | 10   | uA   | VR=80V          |
| Total Radiated Power | PO              |     | (14) |      | W    | IF=1A<br>t=20ms |
| Peak Wavelength      | $\lambda_p$     | 840 |      | 865  | nm   | IF=1A<br>t=20ms |
| Half Width           | $\Delta\lambda$ |     | 33   |      | nm   | IF=1A<br>t=20ms |
| Viewing Half Angle   | $\theta_{1/2}$  |     | ±65  |      | deg. | IF=100mA        |
| Rise Time            | tr              |     | 35   |      | ns   | IF=1A           |
| Fall Time            | tf              |     | 20   |      | ns   | IF=1A           |

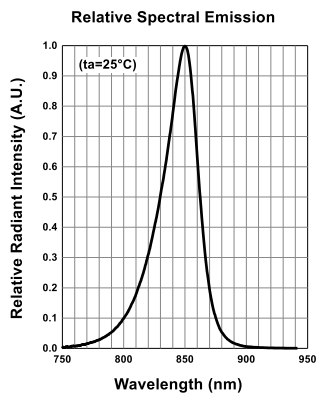
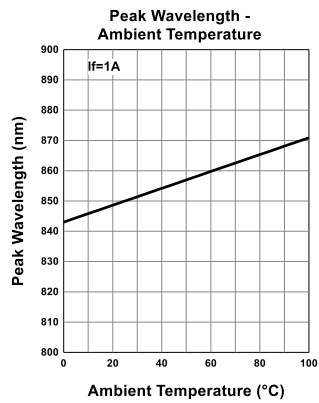
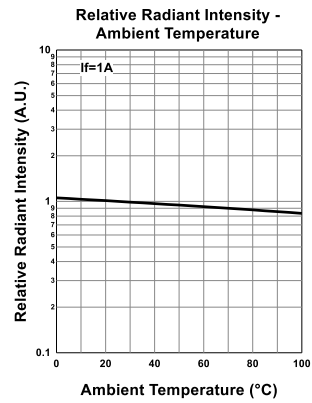
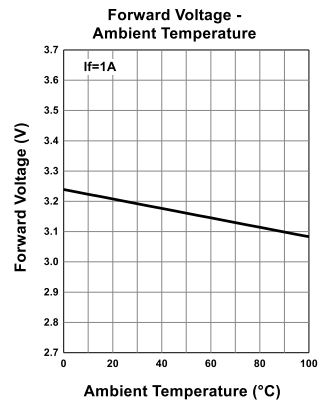
‡ Radiated Power is measured by S3584-08.

Typical Characteristic Curves





\*The data below shows the characteristics of one representative COB chip.



## Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.

