

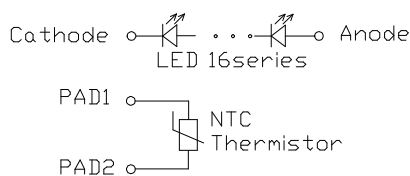
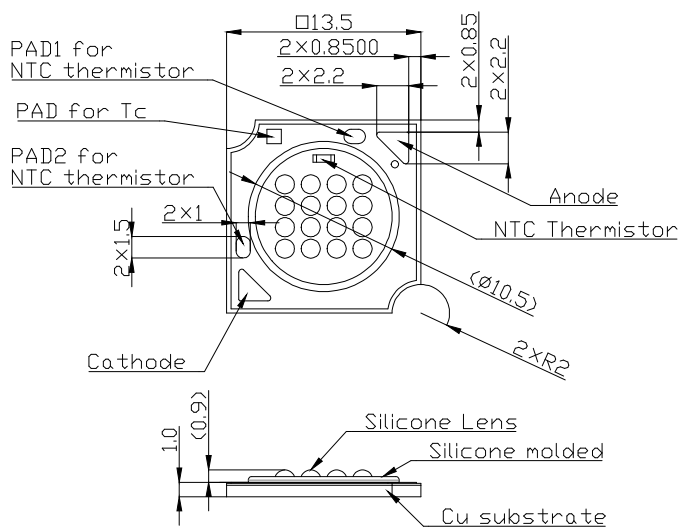


PRELIMINARY

COB1100D-16100S-WPL-X

COB type LED

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : 1mm * 1mm
- Number of Chips : 16pcs
- Peak Wavelength : 1100nm typ.
- Lead Frame Die : Copper
- Lens : Silicone resin

Application

COB1100D-16100S-WPL-X

Absolute Maximum Ratings (Tc=25°C)

| Item | Symbol | Ratings | Unit |
|-----------------------|--------|------------|------|
| Power Dissipation | PD | 30 | W |
| Forward Current | IF | 1000 | mA |
| Pulse Forward Current | IFP | (2000) | mA |
| Reverse Voltage | VR | 80 | V |
| Thermal Resistance | Rthjs | 2 | K/W |
| Junction Temperature | Tj | 120 | °C |
| Operating Temperature | Topr | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +100 | °C |
| Soldering Temperature | TSOL | 250 | °C |

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

Optical and Electrical Characteristics (Tc=25°C)

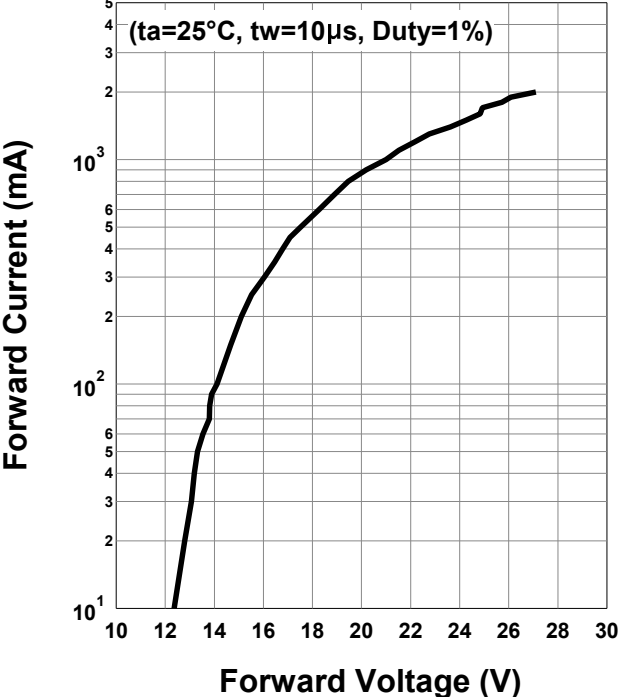
| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|----------------------|-----------------|------|-------|------|------|-----------------|
| Forward Voltage | VF | | 21 | (30) | V | IF=1A t=20ms |
| Reverse Current | IR | | | 10 | uA | VR=80V |
| Total Radiated Power | PO | | (3.0) | | W | IF=1A t=20ms |
| Peak Wavelength | λ_p | 1050 | | 1150 | nm | IF=1A t=20ms |
| Half Width | $\Delta\lambda$ | | 50 | | nm | IF=1A t=20ms |
| Viewing Half Angle | $\theta_{1/2}$ | | ±64 | | deg. | IF=100mA |
| Rise Time | tr | | 90 | | ns | IF=1A |
| Fall Time | tf | | 30 | | ns | IF=1A |

‡ Radiated Power is measured by G8370-85.

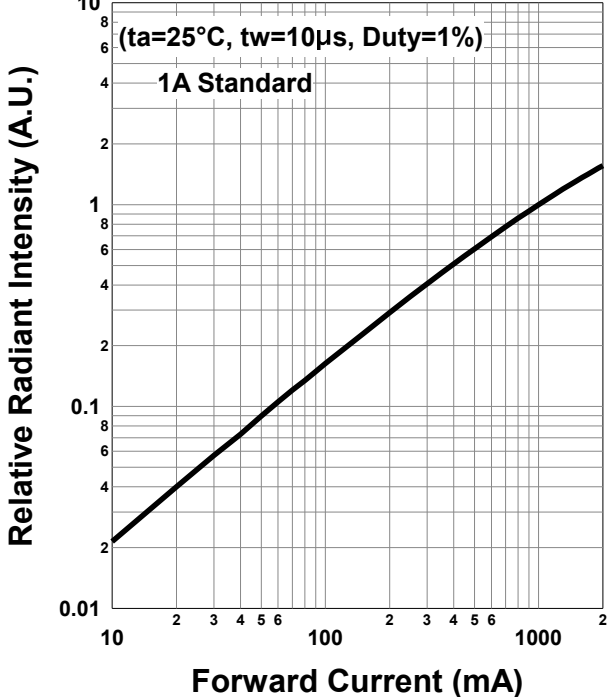
COB1100D-16100S-WPL-X

Typical Characteristic Curves

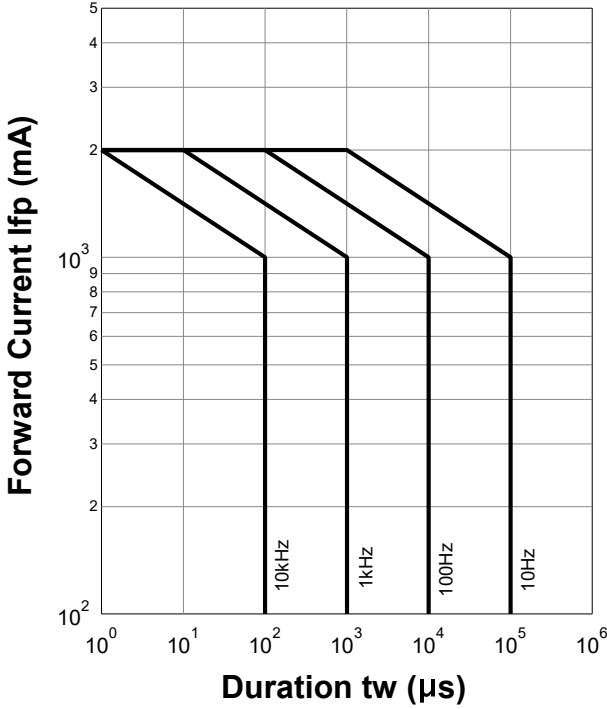
Forward Current - Forward Voltage



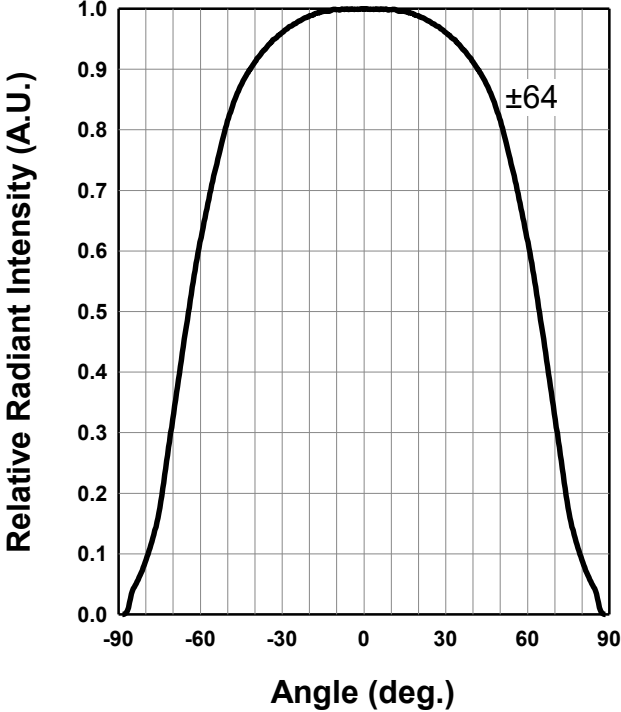
Relative Radiant Intensity - Forward Current



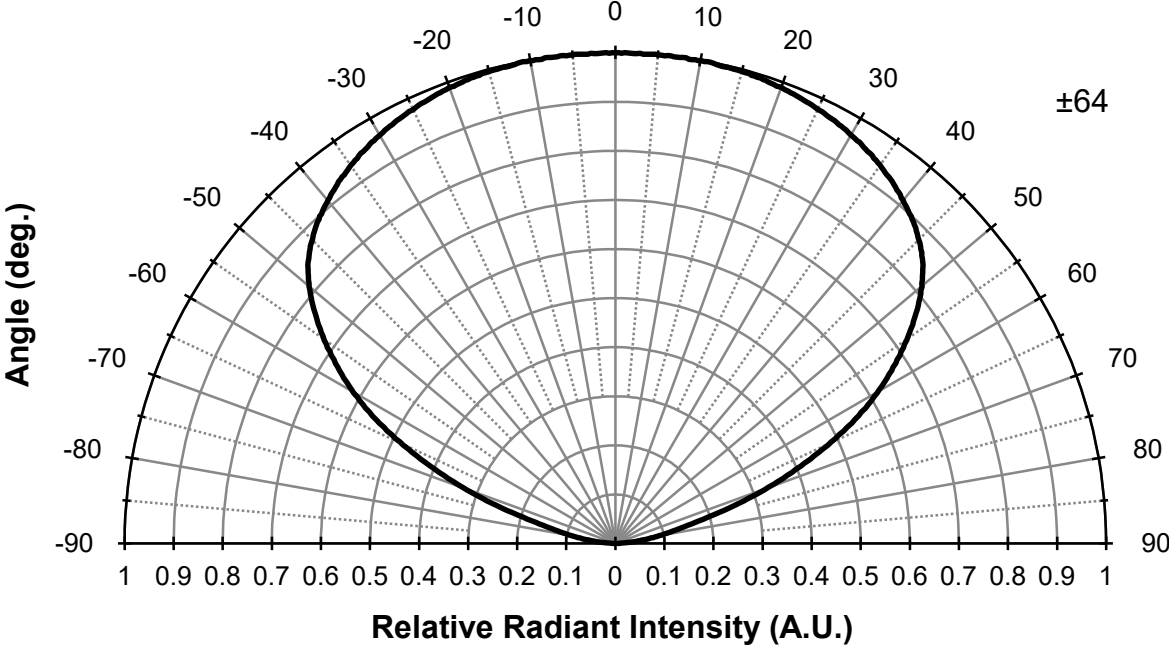
Forward Current - Pulse Duration



Radiation Characteristics

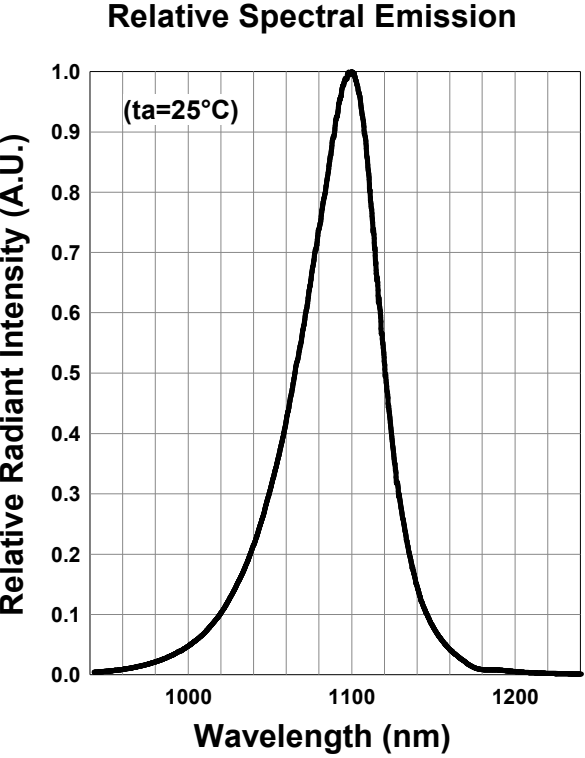
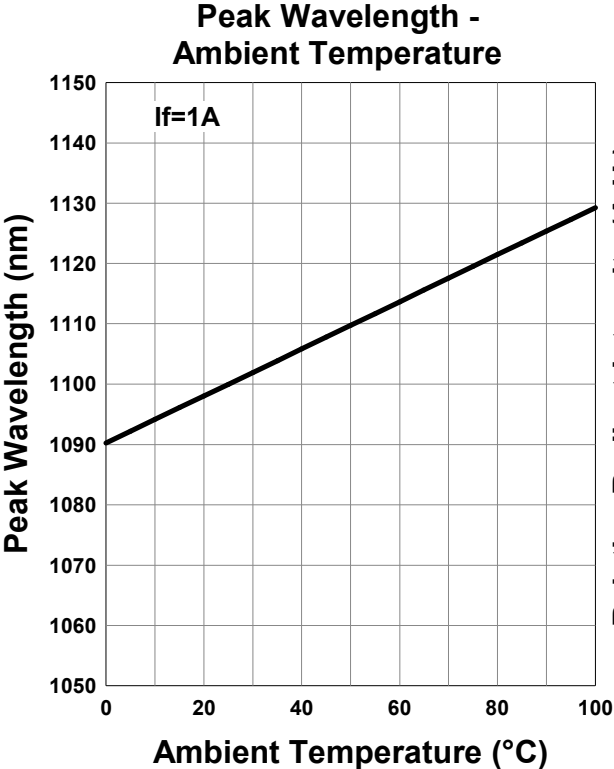
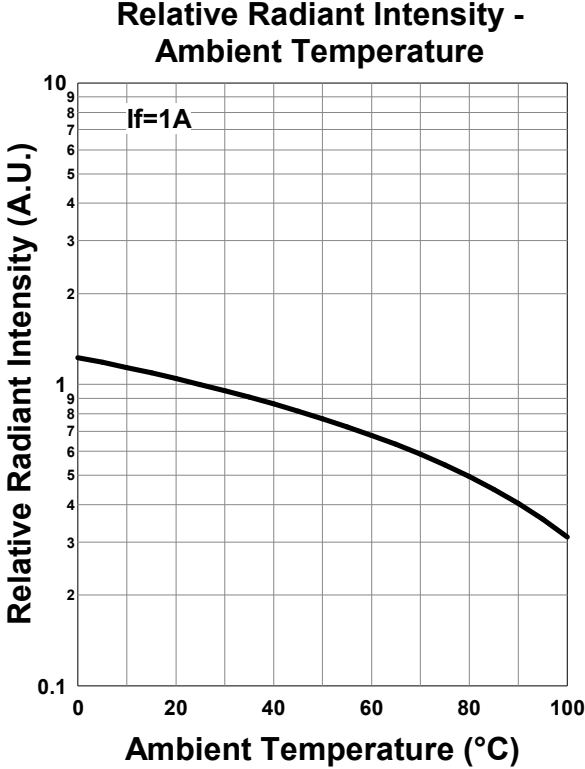
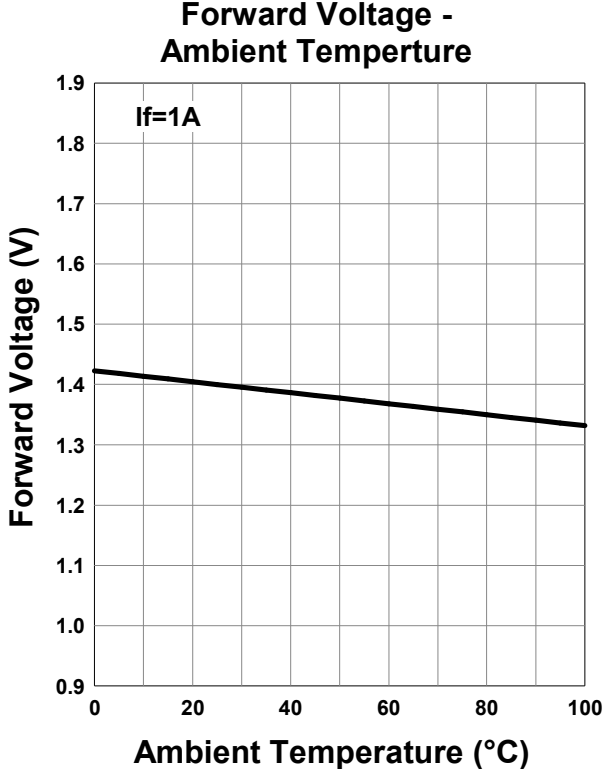


Radiation Characteristics



COB1100D-16100S-WPL-X

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



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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.

Technical Support Information

<https://www.ushio.co.jp/en/led/technology/index.html>



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