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[Everlight Electronics Co Ltd](#)
[383-2SURC/S400-A8](#)

For any questions, you can email us directly:

sales@integrated-circuit.com



EVERLIGHT ELECTRONICS CO.,LTD.

DATA SHEET

PART NO. : 383-2SURC/S400-A8

DATE : 2002/7/22

DEPARTMENT : CHR&D1

REVISION : 1

| | | | |
|---|----------|--------------|----------|
| RECEIVED | | | |
| <input checked="" type="checkbox"/> MASS PRODUCTION | | | |
| <input type="checkbox"/> PRELIMINARY | | | |
| <input type="checkbox"/> CUSTOMER DESIGN | | | |
| DEVICE NUMBER : | | CDLE-038-163 | |
| PAGE : | | 4 | |
| CUSTOMER | DESIGNER | CHECKER | APPROVER |
| | | | |

| | | |
|------|-------------|--------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| REV. | DESCRIPTION | RELEASE DATE |

Office : 7C Building, Lian Hua Port Industrial District, Lian Hua Shan
 Bonded Processing Zone Pan Yu, Guang Zhou, China
 TEL. : (020)84860913,84860914
 FAX : (020)84860600
[http : //www.everlight.com](http://www.everlight.com)



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-038-163 REV.: 1

5.0mm Round Type LED Lamps

PART NO. : 383-2SURC/S400-A8 ECN: _____ Page: 1/4

■ Features :

- Choice of various viewing angles
- Available on tape and reel.
- Reliable and robust

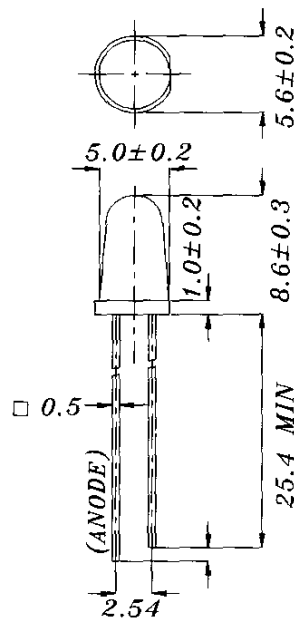
■ Descriptions :

- The series is specially designed for applications requiring higher brightness
- The led lamps are available with different colors, intensities,

■ Applications :

- TV set
- Monitor
- Telephone
- Computer

■ Package Dimensions:



■ Notes :

1. All dimensions are in millimeters.
2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
3. Tolerances unless Dimension $\pm 0.25\text{mm}$.

| PART NO. | Chip | | Lens Color |
|-------------------|----------|---------------|-------------|
| | Material | Emitted Color | |
| 383-2SURC/S400-A8 | AlGaInP | Hyper Red | Water Clear |

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5.0mm Round Type LED Lamps

PART NO. : 383-2SURC/S400-A8 ECN: _____ Page: 2/4

■ Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|--|----------|-------------|------|
| Forward Current | IF | 50 | mA |
| Operating Temperature | Topr | -40 to +85 | °C |
| Storage Temperature | Tstg | -40 to +100 | °C |
| Soldering Temperature | Tsol | 260 ± 5 | °C |
| Electrostatic Discharge | ESD | 2000 | V |
| Power Dissipation | Pd | 120 | mW |
| Peak Forward Current(Duty 1/10 @ 1KHz) | IF(Peak) | 200 | mA |
| Reverse Voltage | VR | 5 | V |

■ Electronic Optical Characteristics :

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|--------|------|-------|------|------|-----------|
| Luminous Intensity | Iv | 6300 | 12500 | / | mcd | IF= 20 mA |
| Viewing Angle | 2θ 1/2 | / | 6 | / | deg | IF= 20 mA |
| Peak Wavelength | λ p | / | 632 | / | nm | IF= 20 mA |
| Dominant Wavelength | λ d | / | 624 | / | nm | IF= 20 mA |
| Spectrum Radiation Bandwidth | Δ λ | / | 20 | / | nm | IF= 20 mA |
| Forward Voltage | VF | / | 2.0 | 2.4 | V | IF= 20 mA |
| Reverse Current | IR | / | / | 10 | μ A | VR= 5 V |



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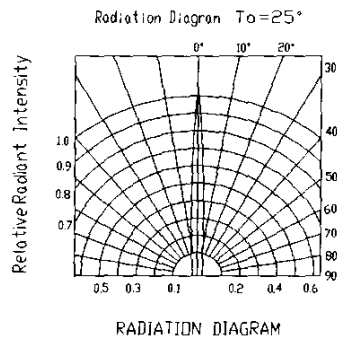
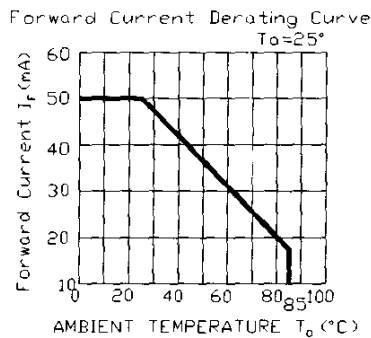
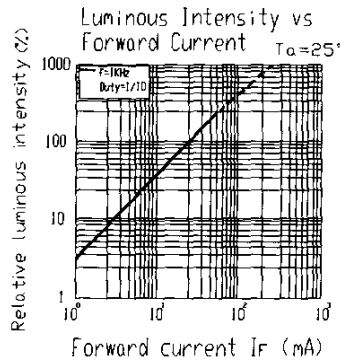
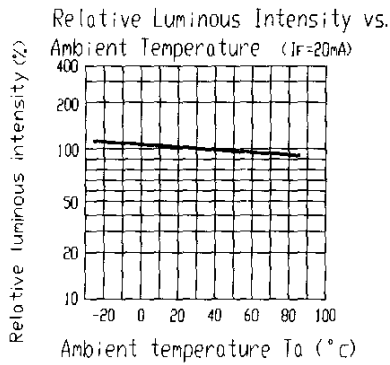
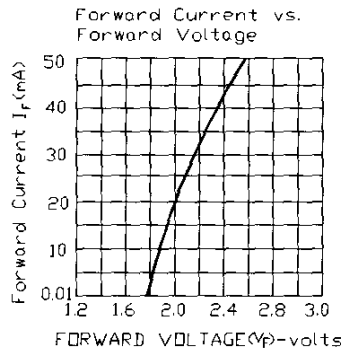
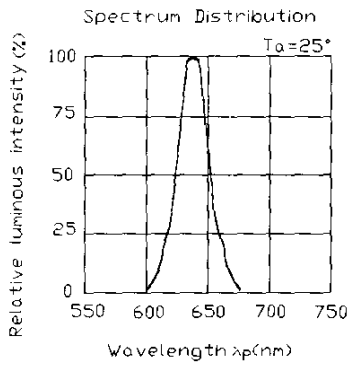
Device Number : CDLE-038-163 REV.: 1

5.0mm Round Type LED Lamps

PART NO. : 383-2SURC/S400-A8 ECN : _____ Page: 3/4

■ Typical Electro-Optical Characteristic Curves:

(SUR)





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDLE-038-163 REV.: 1

5.0mm Round Type LED Lamps

PART NO. : 383-2SURC/S400-A8 ECN : _____ Page: 4/4

■ Reliability test items and conditions:

| NO | Item | Test Conditions | Test Hours/Cycle | | Ac/Re |
|----|----------------------------------|---|------------------|--------|-------|
| 1 | Solder Heat | TEMP : 260°C ± 5 °C | 5 SEC | 76 PCS | 0/1 |
| 2 | Temperature Cycle | H : +85°C 30min § 5 min L : -55°C 30min | 50 CYCLES | 76 PCS | 0/1 |
| 3 | Thermal Shock | H : +100°C 5min § 10 sec L : -10°C 5min | 50 CYCLES | 76 PCS | 0/1 |
| 4 | High Temperature Storage | TEMP : 100°C | 1000 HRS | 76 PCS | 0/1 |
| 5 | Low Temperature Storage | TEMP : -55°C | 1000 HRS | 76 PCS | 0/1 |
| 6 | DC Operating Life | TEMP : 25°C IF = 20mA | 1000 HRS | 76 PCS | 0/1 |
| 7 | High Temperature / High Humidity | 85°C / 85% RH | 1000 HRS | 76 PCS | 0/1 |