



EVERLIGHT ELECTRONICS CO.,LTD.

# DATA SHEET

PART NO. : 204-10SUGD/S400-A4

DATE : 2004/10/15

DEPARTMENT : CHR&D1

REVISION : 1

<b>RECEIVED</b>			
<input checked="" type="checkbox"/> MASS PRODUCTION			
<input type="checkbox"/> PRELIMINARY			
<input type="checkbox"/> CUSTOMER DESIGN			
DEVICE NUMBER : CDLE-020-774			
PAGE : 6			
CUSTOMER	DESIGNER	CHECKER	APPROVER

REV.	DESCRIPTION	RELEASE DATE

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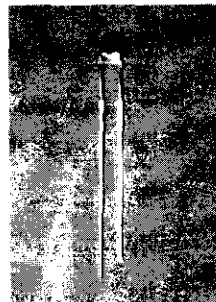
# Technical Data Sheet

## 3.0mm Round Type LED Lamps

**204-10SUGD/S400-A4**

### ■ Features :

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



### ■ 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

PART NO.	Material	Emitted Color	Lens Color
204-10SUGD/S400-A4	InGaN	Super Green	Green Diffused

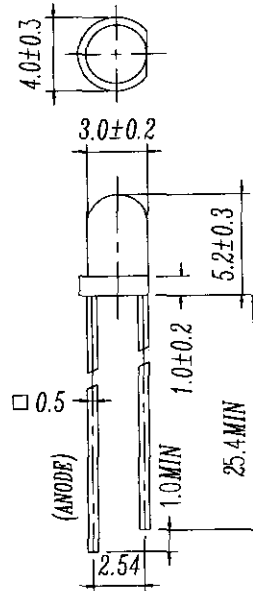


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## 3.0mm Round Type LED Lamps

### 204-10SUGD/S400-A4

#### Package Dimensions



- Notes:**
1. All dimensions are in millimetres
  2. The height of flange must be less than 1.5mm(0.059").
  3. Without special declared, the tolerance is  $\pm 0.25$ mm.

#### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Forward Current	$I_F$	30	mA
Operating Temperature	$T_{opr}$	-40 to +85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$
Electrostatic Discharge	ESD	150	V
Soldering Temperature	$T_{sol}$	$260 \pm 5$	$^\circ\text{C}$
Power Dissipation	$P_d$	120	mW
Peak Forward Current	$I_F(\text{Peak})$	100	mA
Reverse Voltage	$V_R$	5	V

Note: \*1:  $I_F$  Conditions --Pulse Width  $\leq 1$ msec and Duty  $\leq 1/10$ .

\*2: Soldering time  $\leq 5$  seconds.



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**Electro-Optical Characteristics (Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20 mA	/	3.4	4.0	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = V	/	/	50	μA
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 20 mA	400	800	/	mcd
Viewing Angle	2θ 1/2	I <sub>F</sub> = 20 mA	/	30	/	deg
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 20 mA	/	525	/	nm
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> = 20 mA	/	530	/	nm
Spectrum Radiation Bandwidth	Δλ	I <sub>F</sub> = 20 mA	/	35	/	nm



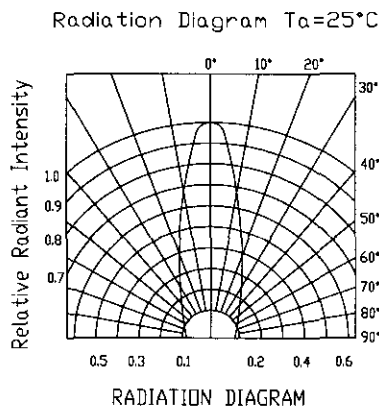
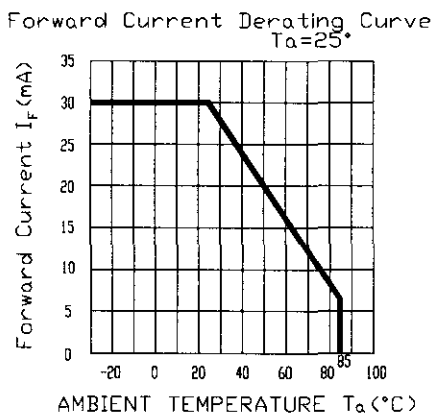
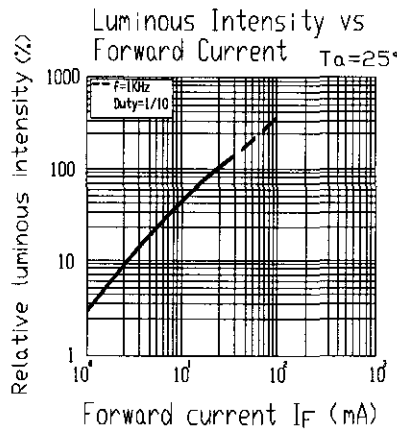
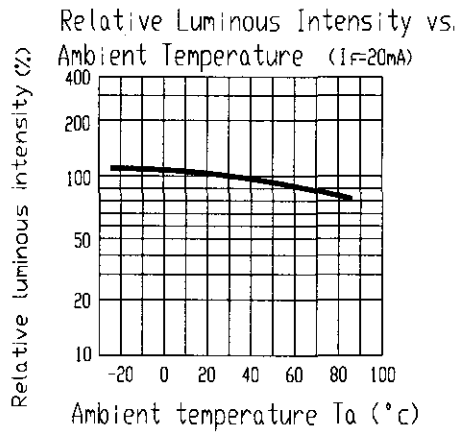
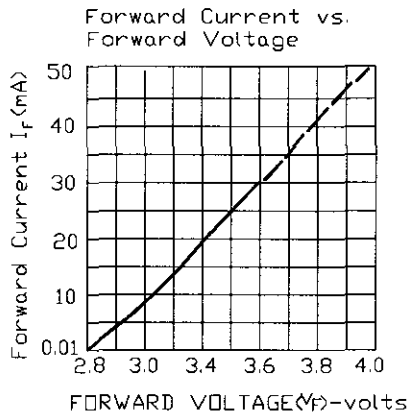
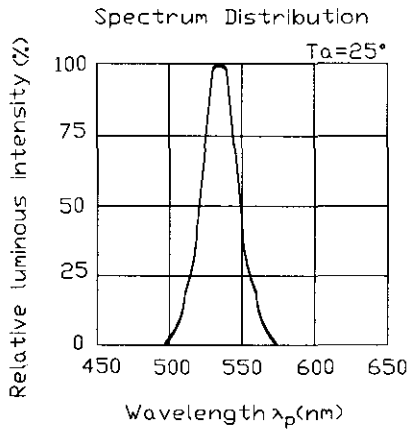
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### Typical Electro-Optical Characteristic Curves:

SUG



**EVERLIGHT**

Technical Data Sheet  
3.0mm Round Type LED Lamps

**204-10SUGD/S400-A4****■ Reliability test items and conditions:**

NO	Item	Test Conditions	Test Hours/Cycle	Sample size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	10 SEC	76 PCS	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -40°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



# Technical Data Sheet

## 3.0mm Round Type LED Lamps

### 204-10SUGD/S400-A4

#### Packing Quantity Specification

- 1.1000PCS/1Bag · 4Bags/1Box
- 2.10Boxes/1Carton

#### Label Form Specification



- CPN: Customer's Production Number
- P/N : Production Number
- QTY: Packing Quantity
- CAT: Ranks
- HUE: Peak Wavelength
- REF: Reference
- LOT No: Lot Number
- MADE IN TAIWAN: Production Place

MADE IN TAIWAN

#### Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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