

Device Number: \_\_\_\_\_ REV: 1.0

4.1\*5.0mm Elliptical Wide Angle LED Lamps

Model No.: IE-5E34E13T-1B-E07 ECN: \_\_\_\_\_ Page: 1/4

■ **Features :**

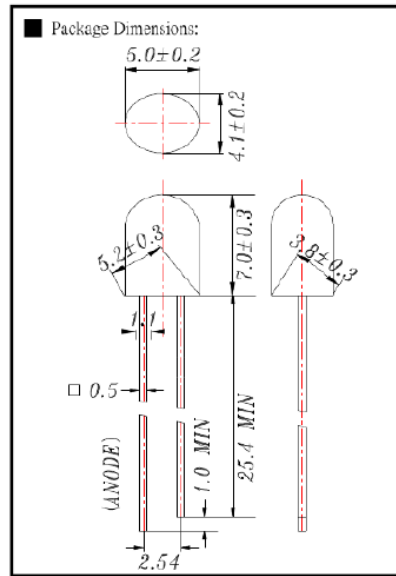
- High radiant intensity
- Choice of various viewing angles
- Reliable and robust

■ **Descriptions :**

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

■ **Applications :**

- TV set
- Monitor
- Telephone
- Computer



- Notes:**
1. All dimensions are in millimetres
  2. An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
  3. Tolerances unless Dimension  $\pm 0.25$ mm.

| PART NO.           | Chip      |               | Lens Color         |
|--------------------|-----------|---------------|--------------------|
|                    | Material  | Emitted Color |                    |
| IE-5E34E13T-1B-E07 | GaAsP/GaP | Red           | Tinted Transparent |

Device Number: \_\_\_\_\_

REV: 1.0

4.1\*5.0mm Elliptical Wide Angle LED Lamps

Model No.: **IE-5E34E13T-1B-E07**

ECN: \_\_\_\_\_

Page: 2/4

■ Absolute Maximum Ratings at Ta = 25°C

| Parameter             | Symbol             | Rating      | Unit |
|-----------------------|--------------------|-------------|------|
| Forward Current       | I <sub>F</sub>     | 25          | mA   |
| Operating Temperature | T <sub>opr</sub>   | -40 to +85  | °C   |
| Storage Temperature   | T <sub>stg</sub>   | -40 to +100 | °C   |
| Soldering Temperature | T <sub>sol</sub>   | 260 ± 5     | °C   |
| Power Dissipation     | P <sub>d</sub>     | 100         | mW   |
| Peak Forward Current  | I <sub>F(pk)</sub> | 160         | mA   |
| Reverse Voltage       | V <sub>R</sub>     | 5           | V    |

Note: \*1:IFP Conditions --Pulse Width ≤ 1msec and Duty ≤ 1/10.

\*2:Soldering time ≤ 5 seconds.

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

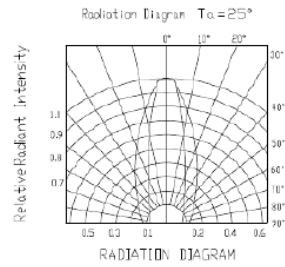
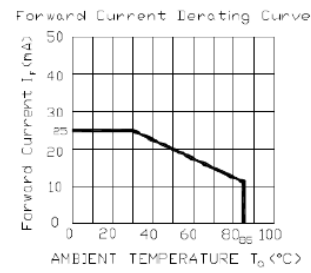
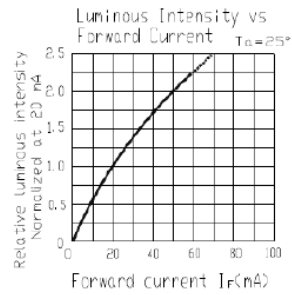
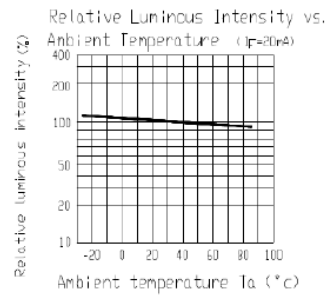
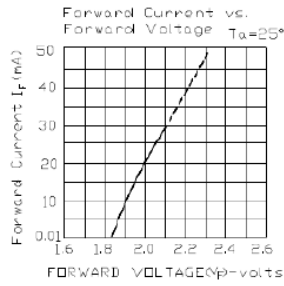
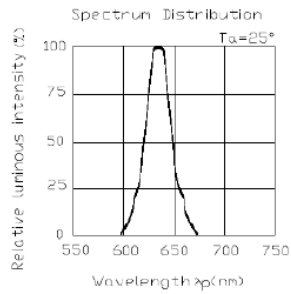
| Parameter                    | Symbol         | Condition                  | Min. | Typ.           | Max. | Unit |
|------------------------------|----------------|----------------------------|------|----------------|------|------|
| Forward Voltage              | V <sub>F</sub> | I <sub>F</sub> = 20 mA     | /    | 1.8            | 2.2  | V    |
| Reverse Current              | I <sub>R</sub> | V <sub>R</sub> = 5 V       | /    | /              | 10   | μA   |
| Luminous Intensity           | I <sub>v</sub> | I <sub>F</sub> = 20        | 4000 | 4500           | /    | mcd  |
| Viewing Angle                | 2θ 1/2         | I <sub>F</sub> = 20 mA     | /    | (X)45<br>(Y)25 | /    | deg  |
| Peak Wavelength              | λ <sub>p</sub> | I <sub>F</sub> = 20 Notes: | 620  | /              | 625  | nm   |
| Dominant Wavelength          | λ <sub>d</sub> | I <sub>F</sub> = 20 mA     | /    | 622            | /    | nm   |
| Spectrum Radiation Bandwidth | Δλ             | I <sub>F</sub> = 20 mA     | /    | 18             | /    | nm   |

Device Number: \_\_\_\_\_ REV: 1.0

### 4.1\*5.0mm Elliptical Wide Angle LED Lamps

Model No.: **IE-5E34E13T-1B-E07** ECN: \_\_\_\_\_ Page: 3/4

#### ■ Typical Electro-Optical Characteristic Curves:



Device Number: \_\_\_\_\_ REV: 1.0

4.1\*5.0mm Elliptical Wide Angle LED Lamps

Model No.: **IE-5E34E13T-1B-E07** ECN: \_\_\_\_\_ Page: 4/4

■ Reliability test items and conditions:

| NO | Item                               | Test Conditions                                | Test Hours/Cycle | Sample | Ac/Re |
|----|------------------------------------|--|------------------|--------|-------|
| 1  | Solder Heat                        | TEMP : 260°C ± 5 °C                            | 10 SEC           | 76 PCS | 0/1   |
| 2  | Temperature Cycle                  | H : +100°C 15min<br>↓ 5 min<br>L : -40°C 15min | 300 CYCLES       | 76 PCS | 0/1   |
| 3  | Thermal Shock                      | H : +85°C 5min<br>↓ 10 sec<br>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<br>I <sub>F</sub> = 20mA           | 1000 HRS         | 76 PCS | 0/1   |
| 7  | High Temperature/<br>High Humidity | 85°C / 85% RH                                  | 1000 HRS         | 76 PCS | 0/1   |