



### ■ Absolute Maximum Ratings

Ta = 25°C

|                      |      | Red      | Units |
|----------------------|------|----------|-------|
|                      |      | KR       |       |
| Power Dissipation    | Pd   | 125      | mW    |
| Forward Current      | IF   | 50       | mA    |
| Peak Forward Current | IFM  | 300      | mA    |
| Reverse Voltage      | VR   | 4        | V     |
| Operating Temp.      | Topr | -30~+85  | °C    |
| Storage Temp.        | Tstg | -30~+100 | °C    |
| Derating *           | ΔIF  | 0.67     | mA/°C |

\* The current derating for operation applies when temperature is above 25°C.

• IFM Condition : tw ≤ 1ms, Duty ≤ 1/20

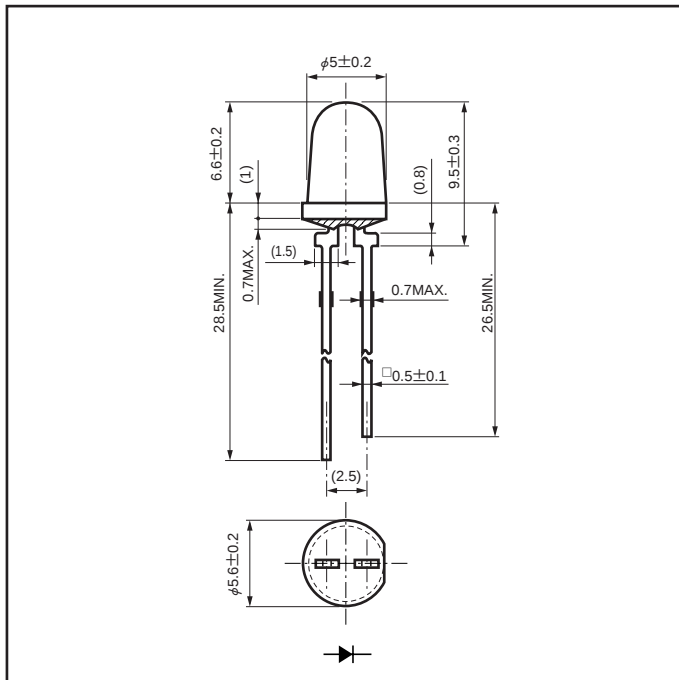
### ■ Electro-Optical Characteristics

Ta = 25°C

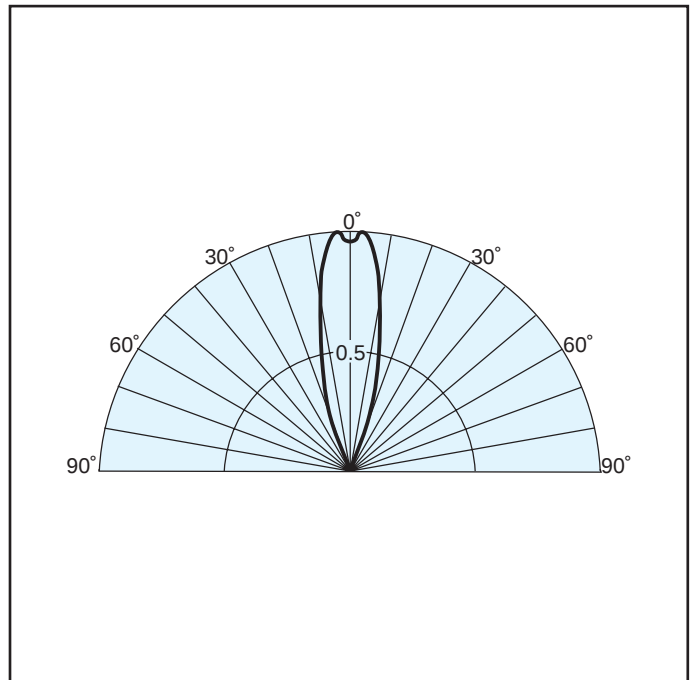
| Part No. | Chip     |               | Lens        |       | Luminous Intensity |     |    | Wavelength |     |     |    | Forward Voltage |     |    | Reverse Current |    |
|----------|----------|---------------|-------------|-------|--------------------|-----|----|------------|-----|-----|----|-----------------|-----|----|-----------------|----|
|          | Material | Emitted Color |             |       | MIN                | TYP | IF | λ d        | λ p | Δ λ | IF | TYP             | MAX | IF | MAX             | VR |
| KR5005S  | GaAlAs   | Red           | Water Clear | Clear | 200                | 300 | 20 | 647        | 660 | 25  | 20 | 1.8             | 2.5 | 20 | 100             | 4  |
| Units    |          |               |             |       | mcd                | mcd | mA | nm         | nm  | nm  | mA | V               | V   | mA | μA              | V  |

### ■ Package Dimensions

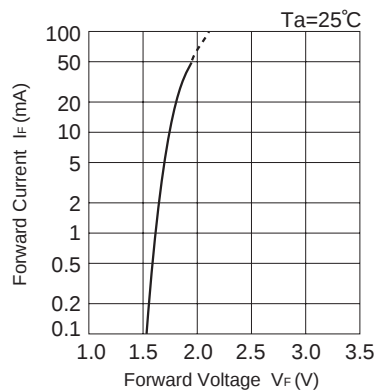
Unit : mm



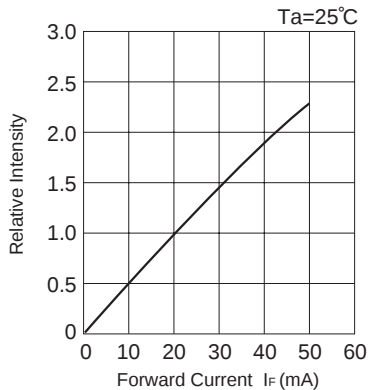
### ■ Spatial Distribution



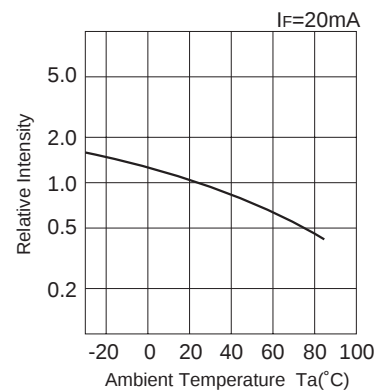
■ Forward Voltage vs. Forward Current



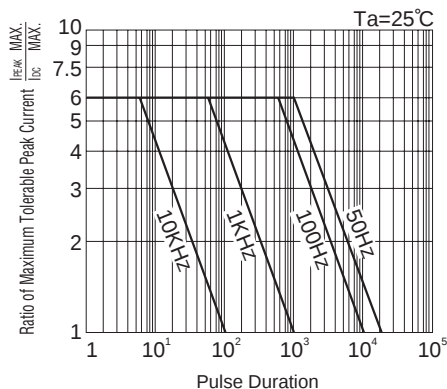
■ Forward Current vs. Relative Intensity



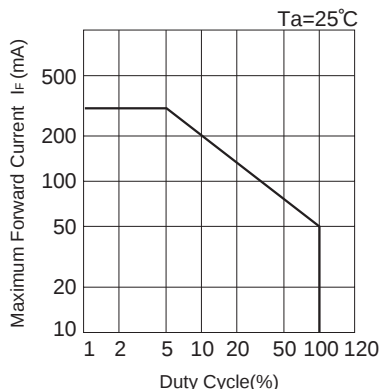
■ Ambient Temperature vs. Relative Intensity



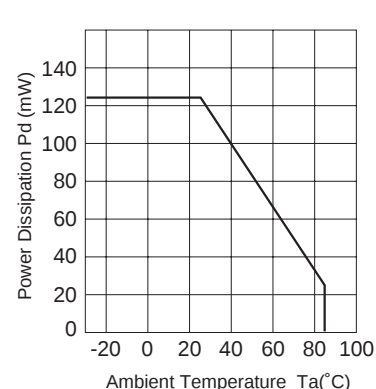
■ Pulse Duration vs. Maximum Tolerable Peak Current



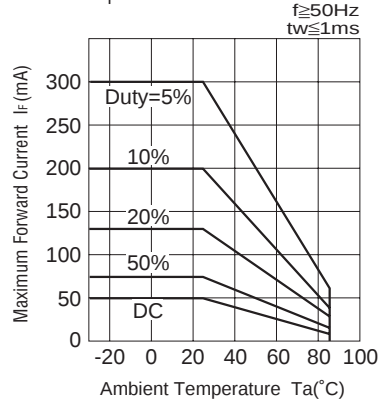
■ Duty Cycle vs. Maximum Forward Current



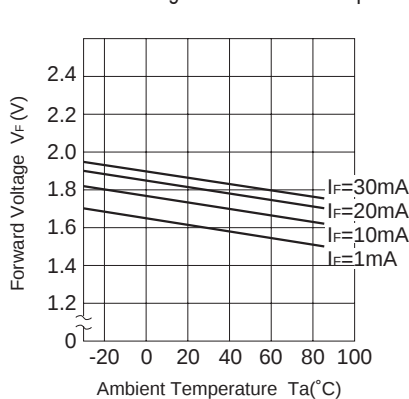
■ Power Dissipation vs. Ambient Temperature



■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

