

ELECTRICAL / OPTICAL CHARACTERISTICS at T_A=25°C

| Parameter | Symbol | Emitting Color | Value | | Unit |
|---|---------------------------------|---------------------|-------|------|-------|
| | | | Typ. | Max. | |
| Wavelength at Peak Emission I _F = 20mA | λ _{peak} | Super Bright Yellow | 590 | - | nm |
| Dominant Wavelength I _F = 20mA | λ _{dom} ^[1] | Super Bright Yellow | 590 | - | nm |
| Spectral Bandwidth at 50% Φ REL MAX I _F = 20mA | Δλ | Super Bright Yellow | 20 | - | nm |
| Capacitance | C | Super Bright Yellow | 45 | - | pF |
| Forward Voltage I _F = 20mA | V _F ^[2] | Super Bright Yellow | 2.0 | 2.5 | V |
| Reverse Current (V _R = 5V) | I _R | Super Bright Yellow | - | 10 | μA |
| Temperature Coefficient of λ _{peak} I _F = 20mA, -10°C ≤ T ≤ 85°C | TC _{λpeak} | Super Bright Yellow | 0.12 | - | nm/°C |
| Temperature Coefficient of λ _{dom} I _F = 20mA, -10°C ≤ T ≤ 85°C | TC _{λdom} | Super Bright Yellow | 0.07 | - | nm/°C |
| Temperature Coefficient of V _F I _F = 20mA, -10°C ≤ T ≤ 85°C | TC _V | Super Bright Yellow | -2 | - | mV/°C |

Notes:

1. The dominant wavelength (λ_d) above is the setup value of the sorting machine. (Tolerance λ_d : ±1nm.)
2. Forward voltage: ±0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

ABSOLUTE MAXIMUM RATINGS at T_A=25°C

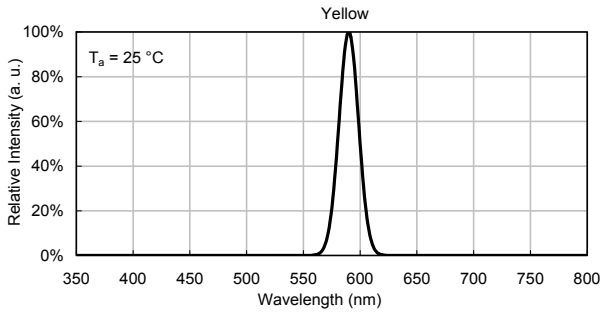
| Parameter | Symbol | Value | Unit |
|--|-----------------------------------|------------|------|
| Power Dissipation | P _D | 75 | mW |
| Reverse Voltage | V _R | 5 | V |
| Junction Temperature | T _J | 115 | °C |
| Operating Temperature | T _{op} | -40 to +85 | °C |
| Storage Temperature | T _{stg} | -40 to +85 | °C |
| DC Forward Current | I _F | 30 | mA |
| Peak Forward Current | I _{FM} ^[1] | 140 | mA |
| Electrostatic Discharge Threshold (HBM) | - | 3000 | V |
| Thermal Resistance (Junction / Ambient) | R _{th JA} ^[2] | 370 | °C/W |
| Thermal Resistance (Junction / Solder point) | R _{th JS} ^[2] | 290 | °C/W |

Notes:

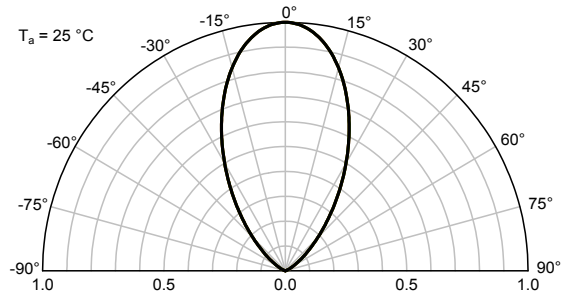
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. R_{th JA}, R_{th JS} Results from mounting on PC board FR4 (pad size ≥ 16 mm² per pad).
3. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

TECHNICAL DATA

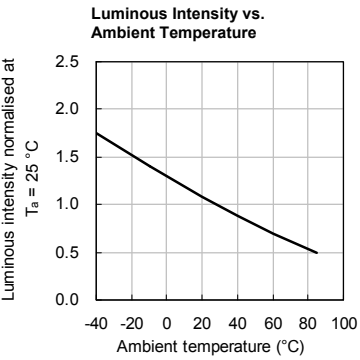
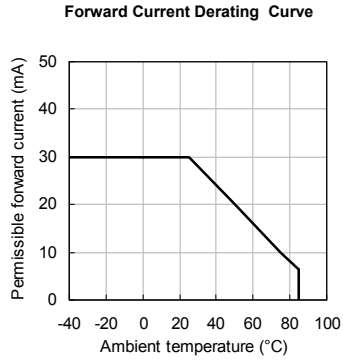
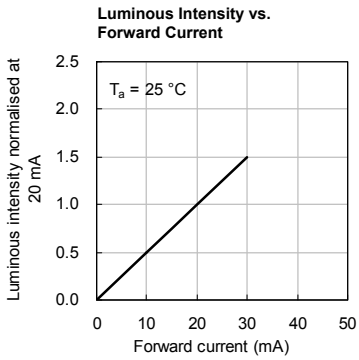
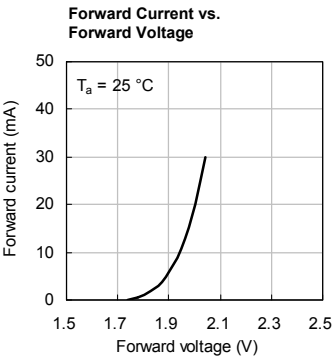
RELATIVE INTENSITY vs. WAVELENGTH



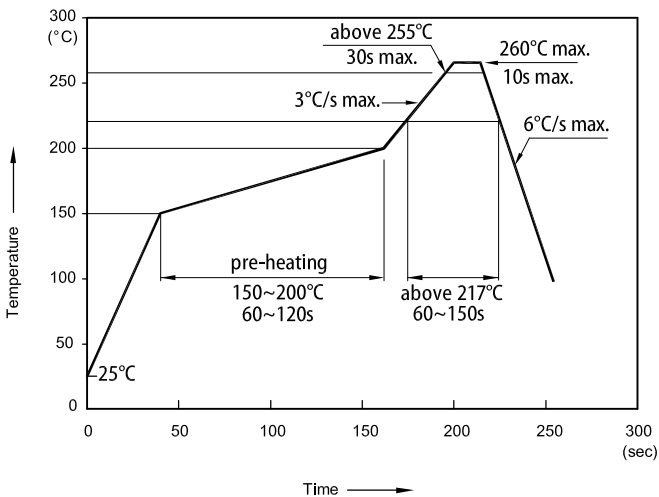
SPATIAL DISTRIBUTION



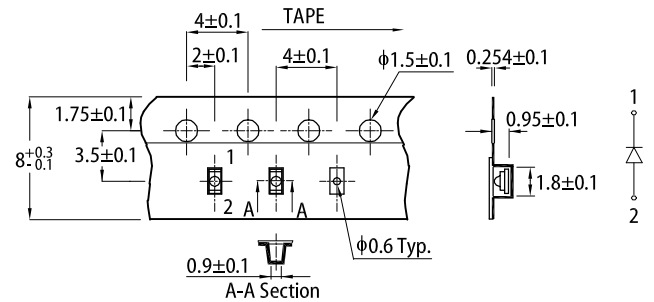
SUPER BRIGHT YELLOW



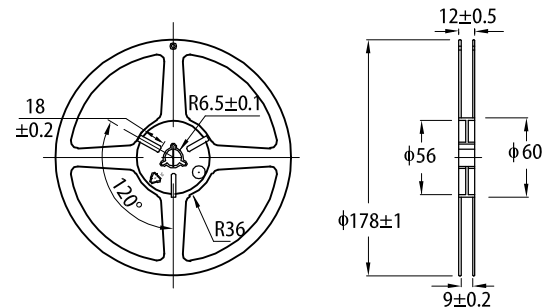
REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS



TAPE SPECIFICATIONS (units : mm)

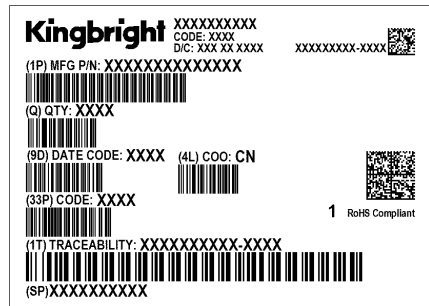
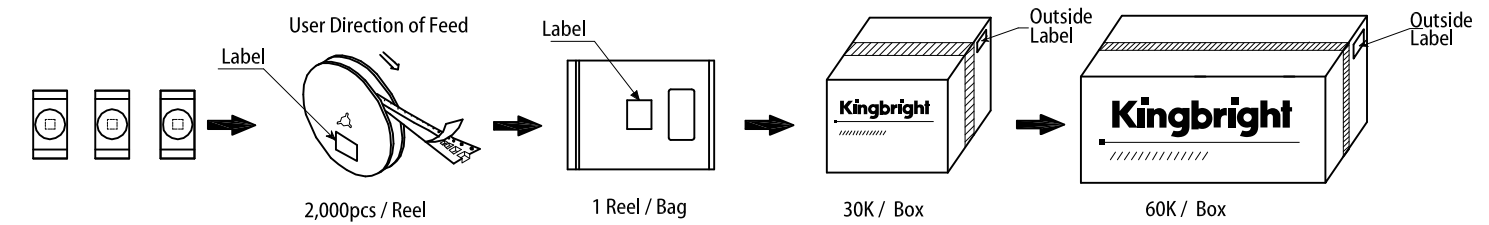


REEL DIMENSION (units : mm)



- Notes:
1. Don't cause stress to the LEDs while it is exposed to high temperature.
 2. The maximum number of reflow soldering passes is 2 times.
 3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

PACKING & LABEL SPECIFICATIONS



PRECAUTIONARY NOTES

1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
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