

Electrical / Optical Characteristics at TA=25°C

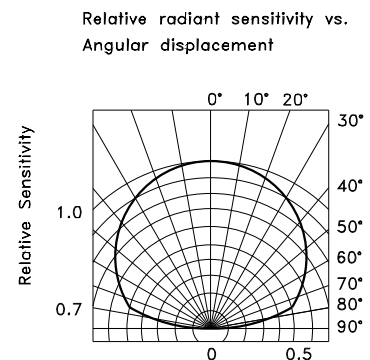
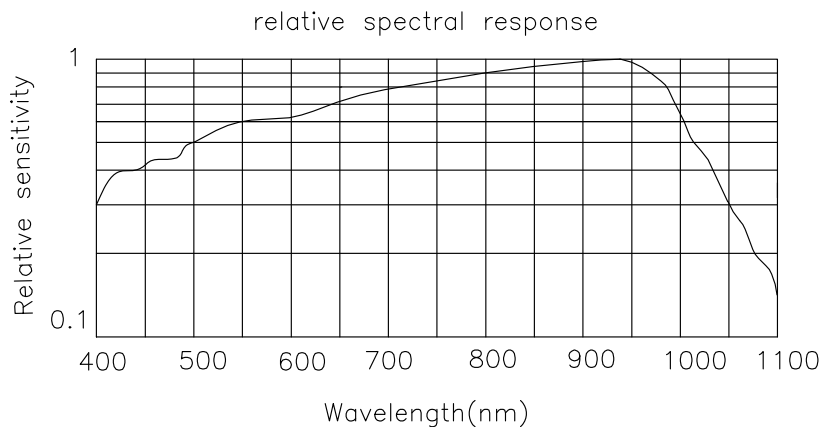
| Symbol | Parameter | Min. | Typ. | Max. | Units | Test Conditions |
|-----------------------|---|------|------|------|-------|--|
| V _{BR CEO} | Collector-to-Emitter Breakdown Voltage | 30 | | | V | I _C =100uA E _e =0mW/cm ² |
| V _{BR ECO} | Emitter-to-Collector Breakdown Voltage | 5 | | | V | I _E =100uA E _e =0mW/cm ² |
| V _{CE (SAT)} | Collector-to-Emitter Saturation Voltage | | | 0.8 | V | I _C =2mA E _e =20mW/cm ² |
| I _{CEO} | Collector Dark Current | | | 100 | nA | V _{CE} =10V E _e =0mW/cm ² |
| T _R | Rise Time (10% to 90%) | | 15 | | us | V _{CE} = 5V I _C =1mA R _L =1000Ω |
| T _F | Fall Time (90% to 10%) | | 15 | | us | |
| I _(ON) | On State Collector Current | 0.1 | 0.3 | | mA | V _{CE} = 5V E _e =1mW/cm ² λ=940nm |
| λ0.1 | Range of spectral bandwidth | 420 | | 1120 | nm | |
| λ _p | Wavelength of peak sensitivity | | 940 | | nm | |
| 2θ1/2 | Angle of half sensitivity | | 150 | | deg | |

Absolute Maximum Ratings at TA=25°C

| Parameter | Max.Ratings |
|---|----------------|
| Collector-to-Emitter Voltage | 30V |
| Emitter-to-Collector Voltage | 5V |
| Power Dissipation at (or below) 25°C Free Air Temperature | 100mW |
| Operating Temperature | -40°C To +85°C |
| Storage Temperature | -40°C To +85°C |

Note:

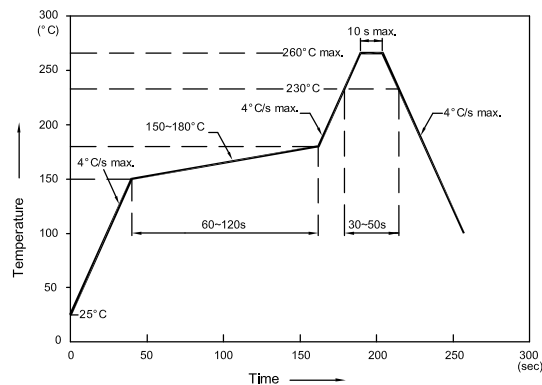
1. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.



AP1608P1C

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

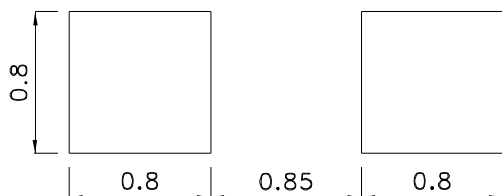
Reflow Soldering Profile For Lead-free SMT Process.



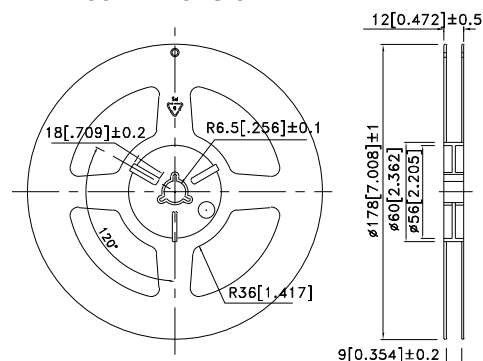
NOTES:

1. We recommend the reflow temperature 245°C (+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

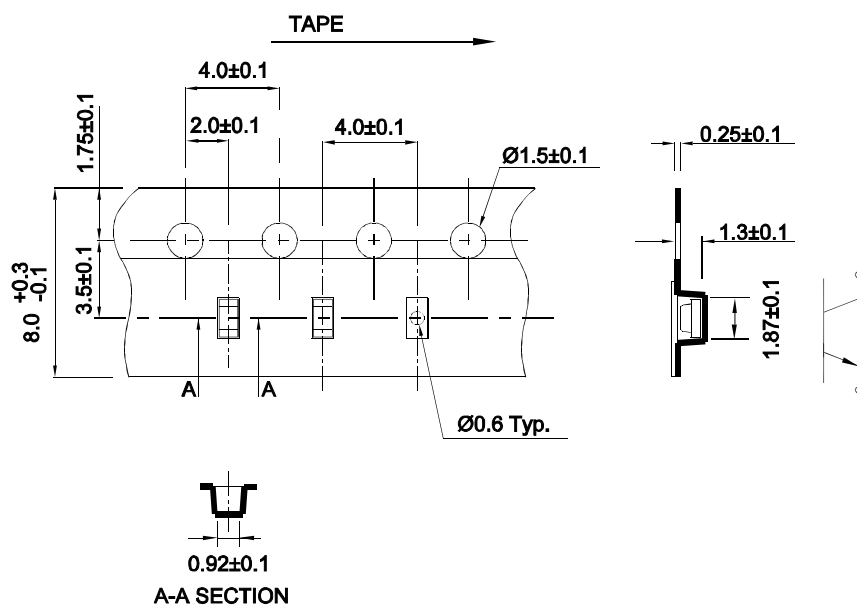
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

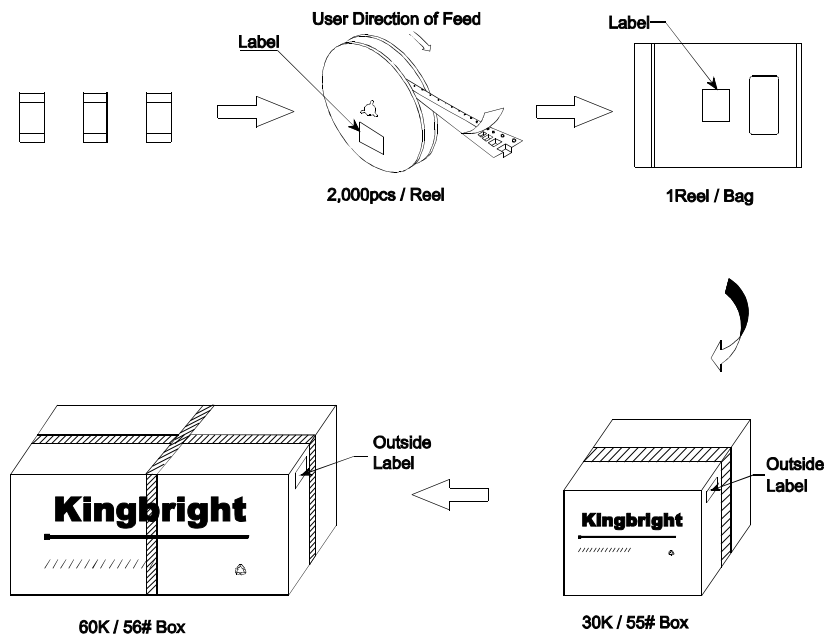



Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

AP1608P1C



| | | |
|--|------|--------------------------|
| Kingbright | | |
| P/NO: AP1608XXX | | |
| QTY: 2,000 pcs | Q.C. | Q C XXXXXXX PASSED |
| S/N: XXXX | | |
| CODE: XXX | | |
| LOT NO: | | |
|  | | |
| RoHS Compliant | | |

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