

Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | Iv (ucd) [1] @ 10mA | | Description |
|------------|---------------------------|----------------|------------------------|-------|---------------------------------|
| | | | Min. | Typ. | |
| KCSA39-105 | Hyper Red (AlGaInP) | White Diffused | 14000 | 36000 | Common Anode, Rt. Hand Decimal. |
| | | | *3600 | *9000 | |

Notes:

- Luminous intensity/ luminous Flux: +/-15%.
- * Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Emitting Color | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|----------------|------|------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | Hyper Red | 645 | | nm | I _F =10mA |
| λ_D [1] | Dominant Wavelength | Hyper Red | 630 | | nm | I _F =10mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Hyper Red | 28 | | nm | I _F =10mA |
| C | Capacitance | Hyper Red | 35 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Hyper Red | 1.85 | 2.5 | V | I _F =10mA |
| I _R | Reverse Current | Hyper Red | | 10 | uA | V _R =5V |

Notes:

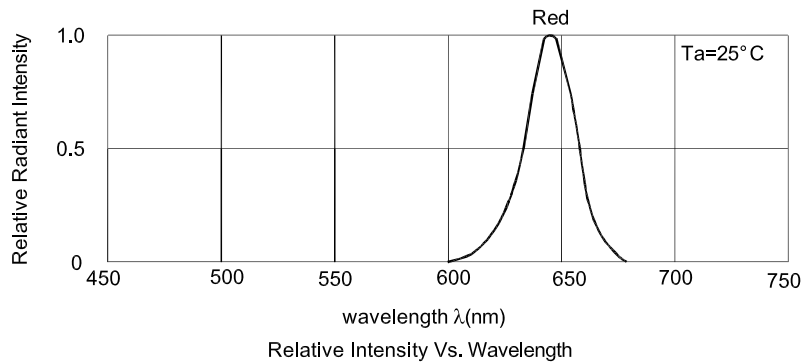
- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.
- Wavelength value is traceable to CIE127-2007 standards.
- Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

| Parameter | Values | Units |
|---------------------------------|----------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 185 | mA |
| Reverse Voltage | 5 | V |
| Operating / Storage Temperature | -40°C To +85°C | |

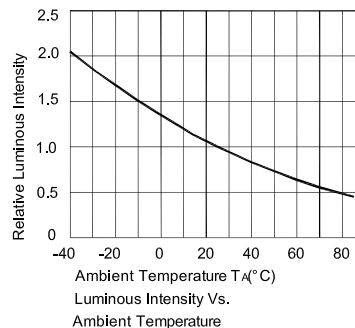
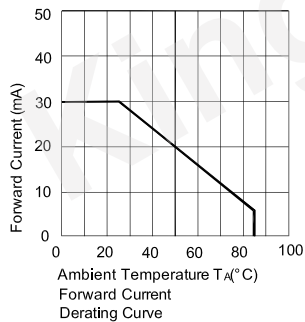
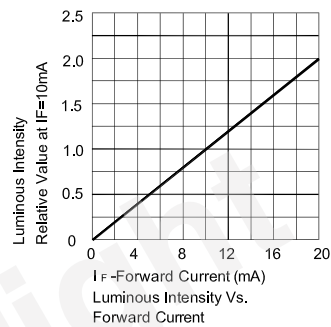
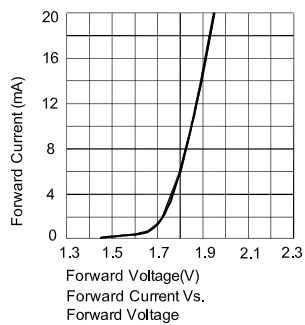
Notes:

- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 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.



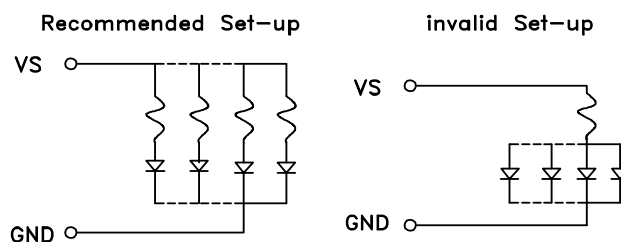
Hyper Red

KCSA39-105



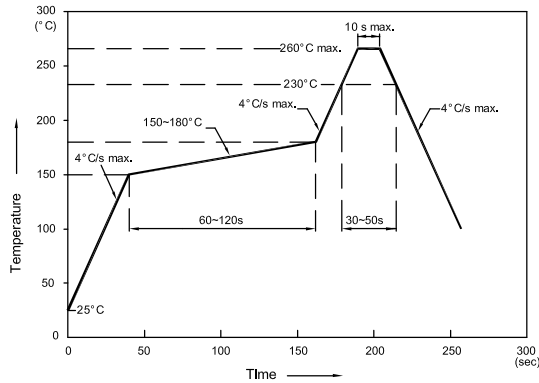
CIRCUIT DESIGN NOTES

1. Protective current-limiting resistors may be necessary to operate the Displays.
2. LEDs mounted in parallel should each be placed in series with its own current-limiting resistor.



KCSA39-105

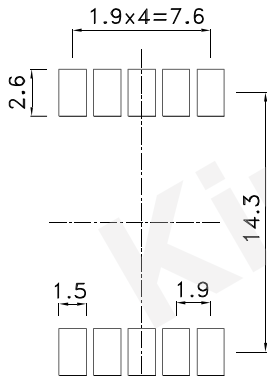
Reflow Soldering Profile For Lead-free SMT Process.



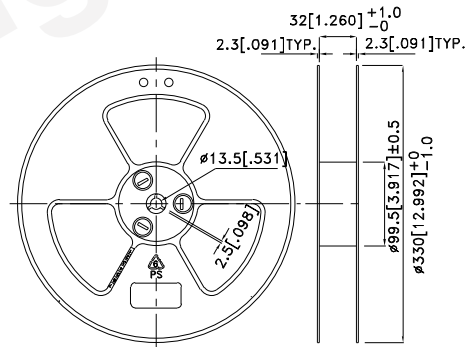
NOTES:

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.

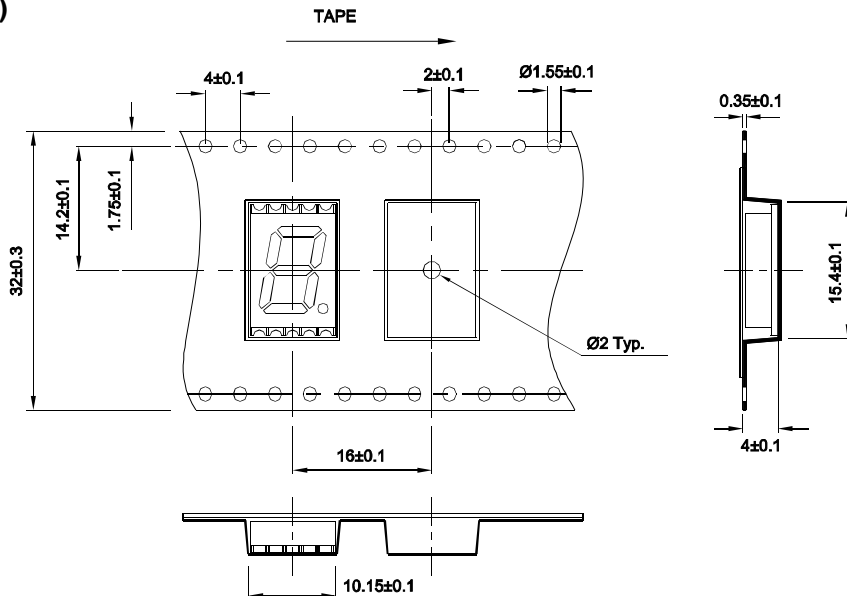
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

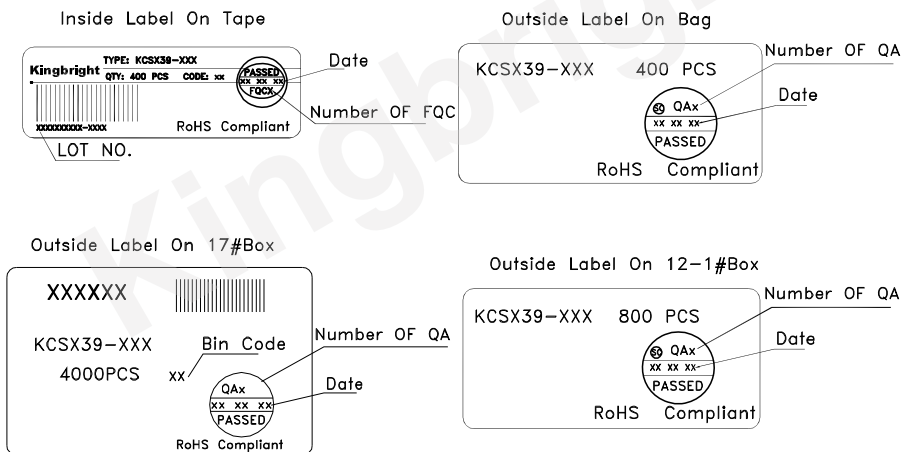
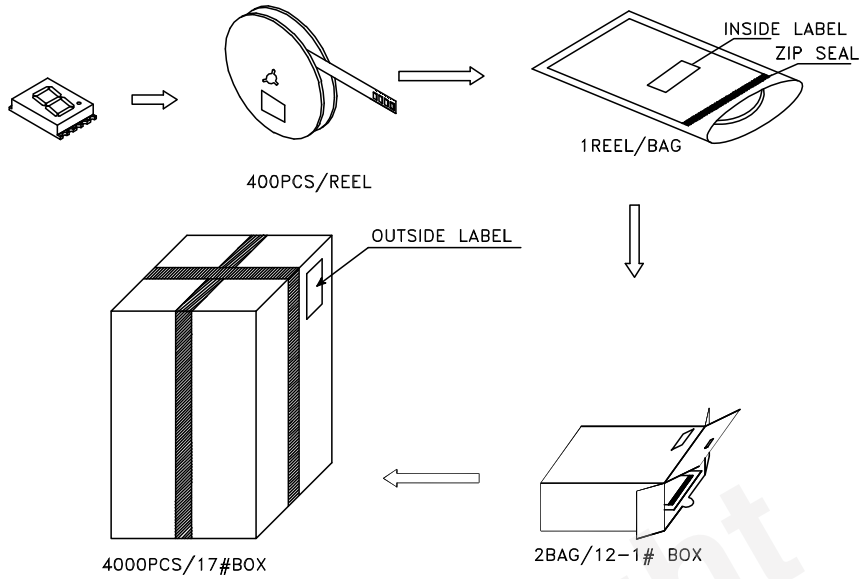


Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

KCSA39-105



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