Kingbright

SURFACE MOUNT DISPLAY

Part Number: KCSC03-105 Hyper Red

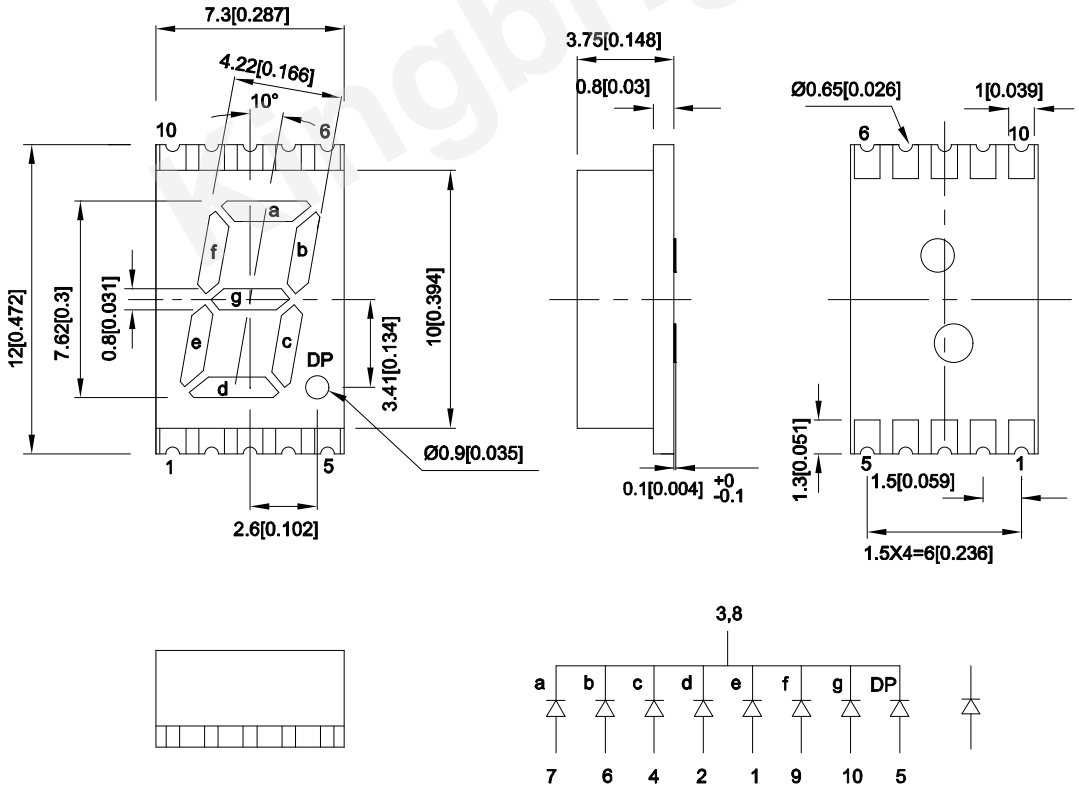
Features

- 0.3 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face,white segment.
- Package : 550pcs / reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

Description

The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

Package Dimensions& Internal Circuit Diagram



Notes:
1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
3.The gap between the reflector and PCB shall not exceed 0.25mm.

Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
KCSC03-105	Hyper Red (AlGaInP)	White Diffused	14000	27000	Common Cathode, Rt. Hand Decimal.
			*3600	*6400	

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

Electrical / Optical Characteristics at TA=25°C

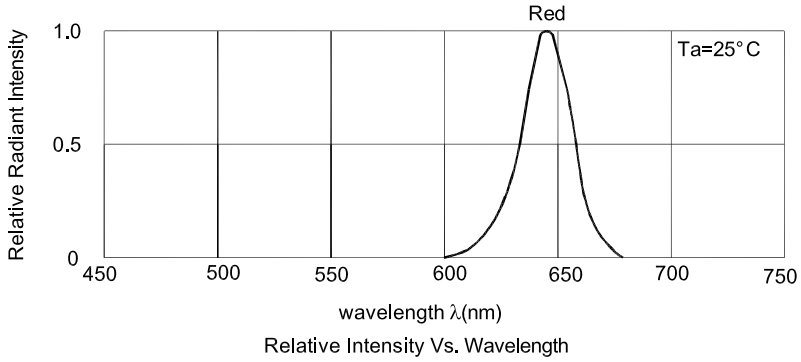
Symbol	Parameter	Emitting Color	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	645		nm	I_F=10mA
λD [1]	Dominant Wavelength	Hyper Red	630		nm	I_F=10mA
Δλ1/2	Spectral Line Half-width	Hyper Red	28		nm	I_F=10mA
C	Capacitance	Hyper Red	35		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Hyper Red	1.85	2.5	V	I_F=10mA
I_R	Reverse Current	Hyper Red		10	uA	V_R=5V

Notes:
1. Wavelength: +/-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 TA=25°C

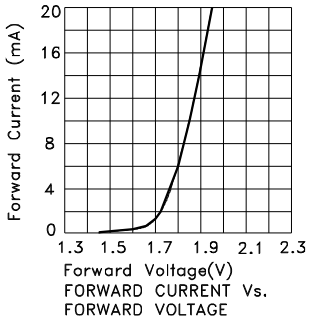
Parameter	Values	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 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.

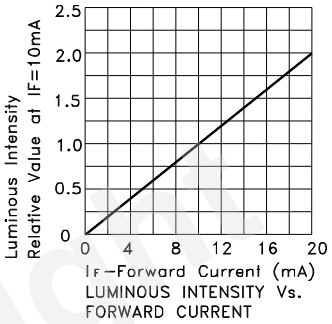


Relative Intensity Vs. Wavelength

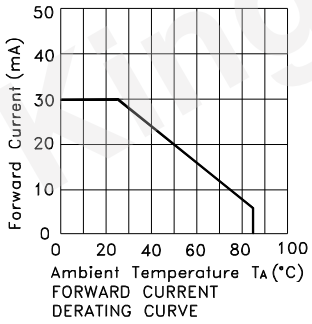
Hyper Red **KCSC03-105**



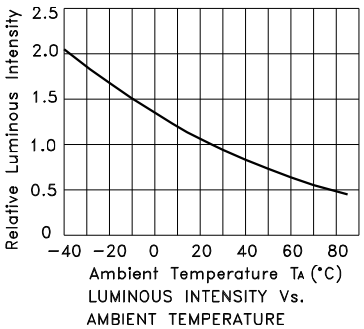
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



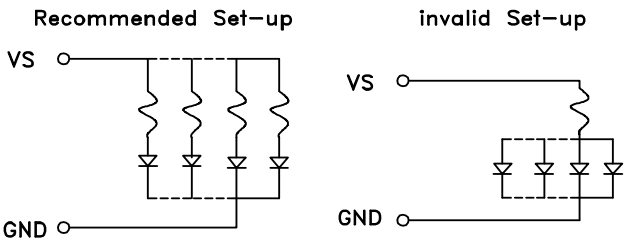
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

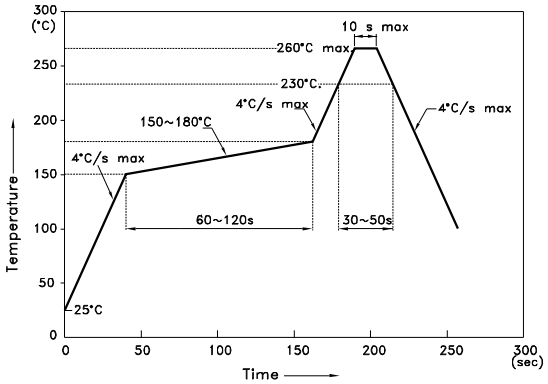
CIRCUIT DESIGN NOTES

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.



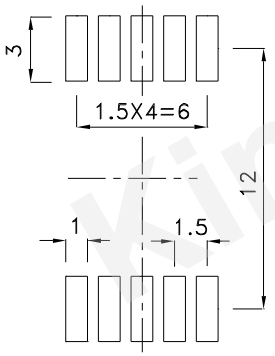
KCSC03-105

Reflow Soldering Profile For Lead-free SMT Process.

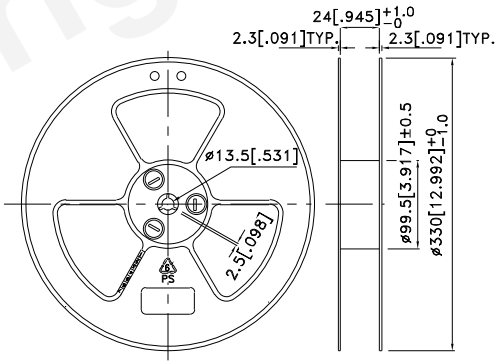


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

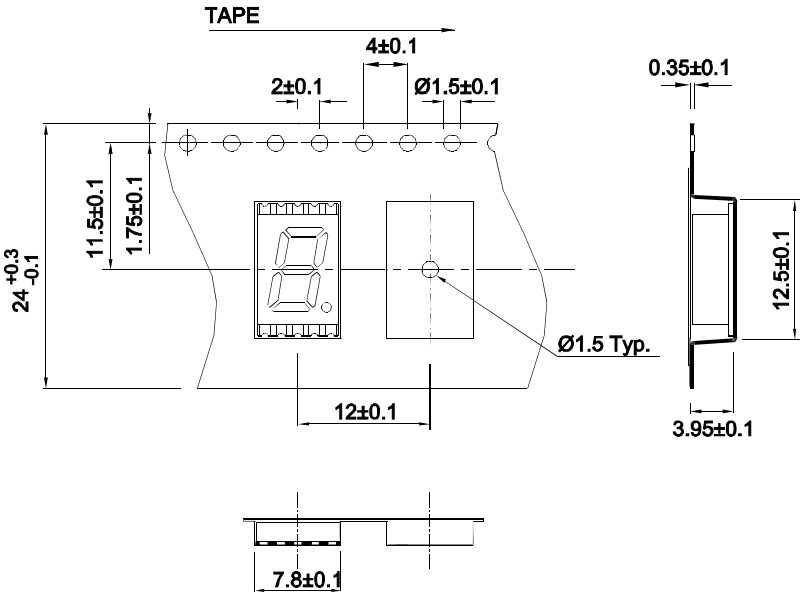
Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.15)



Reel Dimension

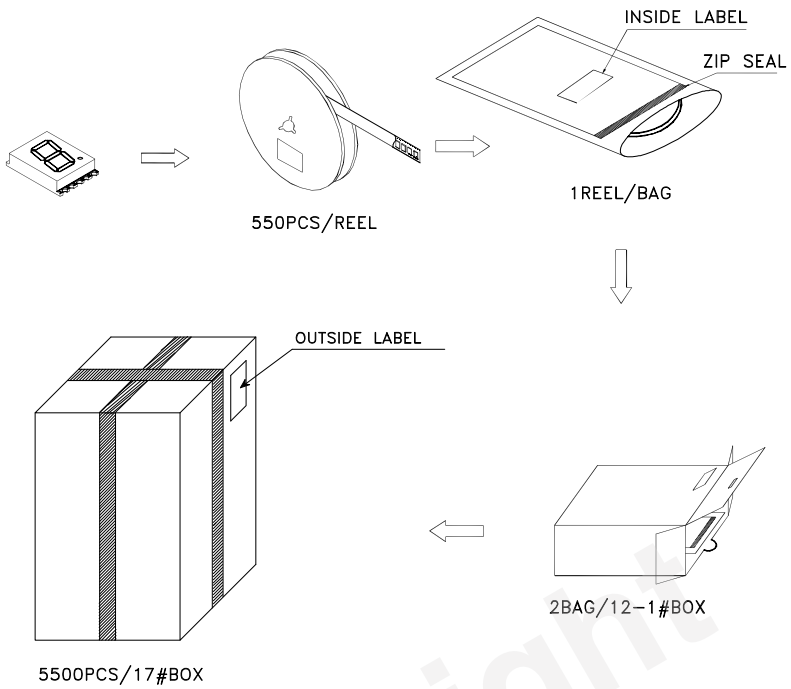


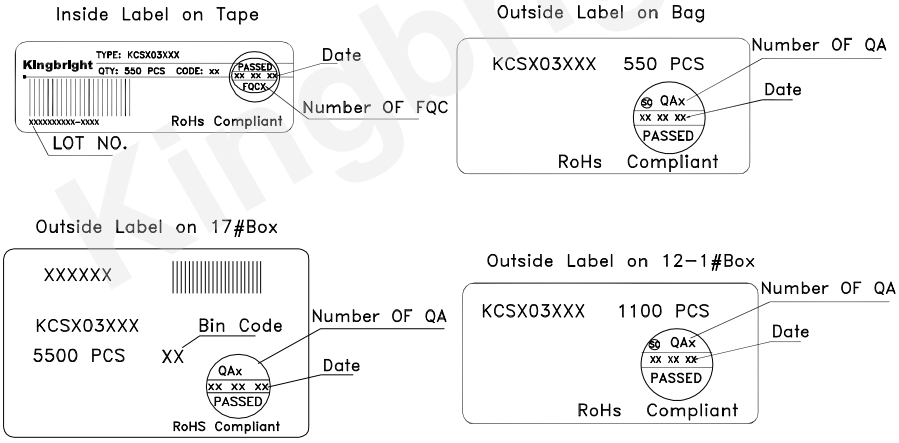
Tape Specifications
(Units : mm)



Kingbright

PACKING & LABEL SPECIFICATIONS **KCSC03-105**





Terms and conditions for the usage of this document

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.
3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
6. All design applications should refer to Kingbright application notes available at http://www.kingbright.com/application_notes

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for LED Displays & Accessories ***category:***

Click to view products by Kingbright ***manufacturer:***

Other Similar products are found below :

LTC-2721WC LTC-4624JD LTC-4627G LTC-4627WC LTD-5021AWC LTM-8522G LTP-4323P LTP-747G LTS-3361JG-06 F416SYGWA/S530-E3 1668 HT-F196NB-5323 IPD2131-27 SA03-12EWA LDD-E2802RD LDD-E306MI LDQ-N514RI LDS-A3506RD LDS-A3926RI LDT-M516RI SC03-12HDB SI-B9T151550WW SI-B9V171550WW SLC-3PF-WL 1624 LTC-2621JD LTC-2623WC LTC-4624P LTC-4627JD LTD-2601E LTD-2601P LTD-322G LTD-482PC LTP-1457AKR LTP-3784G-01 LTS-313AP LTS-4812SKR-P LTS-547AE LTS-6780P 446010401-3 HV-7W30-6829 CA12240_MINNIE-WWW-MTG-ASSY DA43-11GWA LDD-A516RI-17 LDD-E305RI LDQ-M513RI LDQ-M5204RI-SI LDQ-N3402RI LDQ-N3606RI LDT-M2804RI