



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

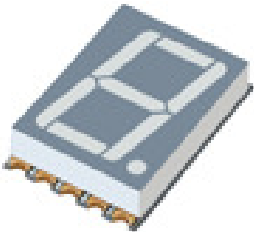
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



### Display ■ Surface-mount EADSS056RA1



#### Features

- Industrial standard size.
- Packaged in tape and reel for SMT manufacturing.
- The thickness is thinner than traditional display.
- Low power consumption.
- Categorized for luminous intensity.
- Pb free and RoHS compliant.

#### Description

- The EADSS056RA1 is a 14.22mm (0.56") digit height seven-segment display.
- The display provides excellent reliability in bright ambient light.
- The device is made with white segments and gray surface.

#### Applications

- Home appliances
- Instrument panels
- Digital readout displays

## Device Selection Guide

Chip Materials	Emitted Color	Resin Color
AlGaInP	Brilliant Red	White Diffusion

## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	$I_{FP}$	60	mA
Power Dissipation	$P_d$	60	mW
Operating Temperature	$T_{opr}$	-40 ~ +105	°C
Storage Temperature	$T_{stg}$	-40 ~ +105	°C
Soldering Temperature (Soldering time ≤ 5 seconds)	$T_{sol}$	260	°C

## Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity <sup>*1</sup>	$I_v$	15.0	34.0	-----	mcd	$I_F=10mA$
Peak Wavelength	$\lambda_p$	-----	632	-----	nm	$I_F=20mA$
Dominant Wavelength	$\lambda_d$	-----	624	-----	nm	$I_F=20mA$
Spectrum Radiation Bandwidth	$\Delta\lambda$	-----	20	-----	nm	$I_F=20mA$
Forward Voltage	$V_F$	-----	2.0	2.4	V	$I_F=20mA$
Reverse Current	$I_R$	-----	-----	10	μA	$V_R=5V$

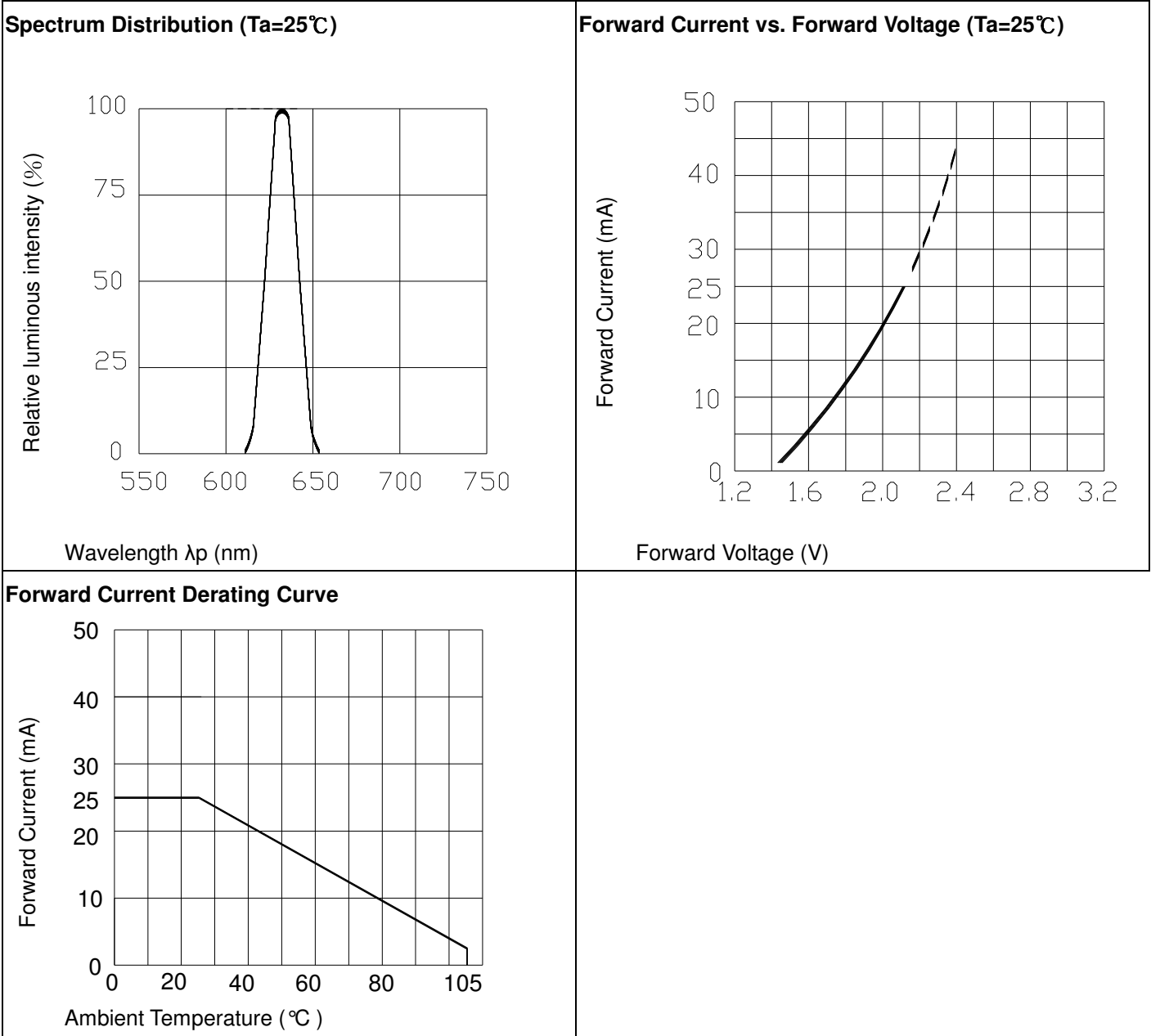
Note:

- Luminous Intensity is a average value which is measured one 7-segment.
- Tolerance of Luminous Intensity: ± 10 %
- Tolerance of Forward Voltage: ± 0.1V

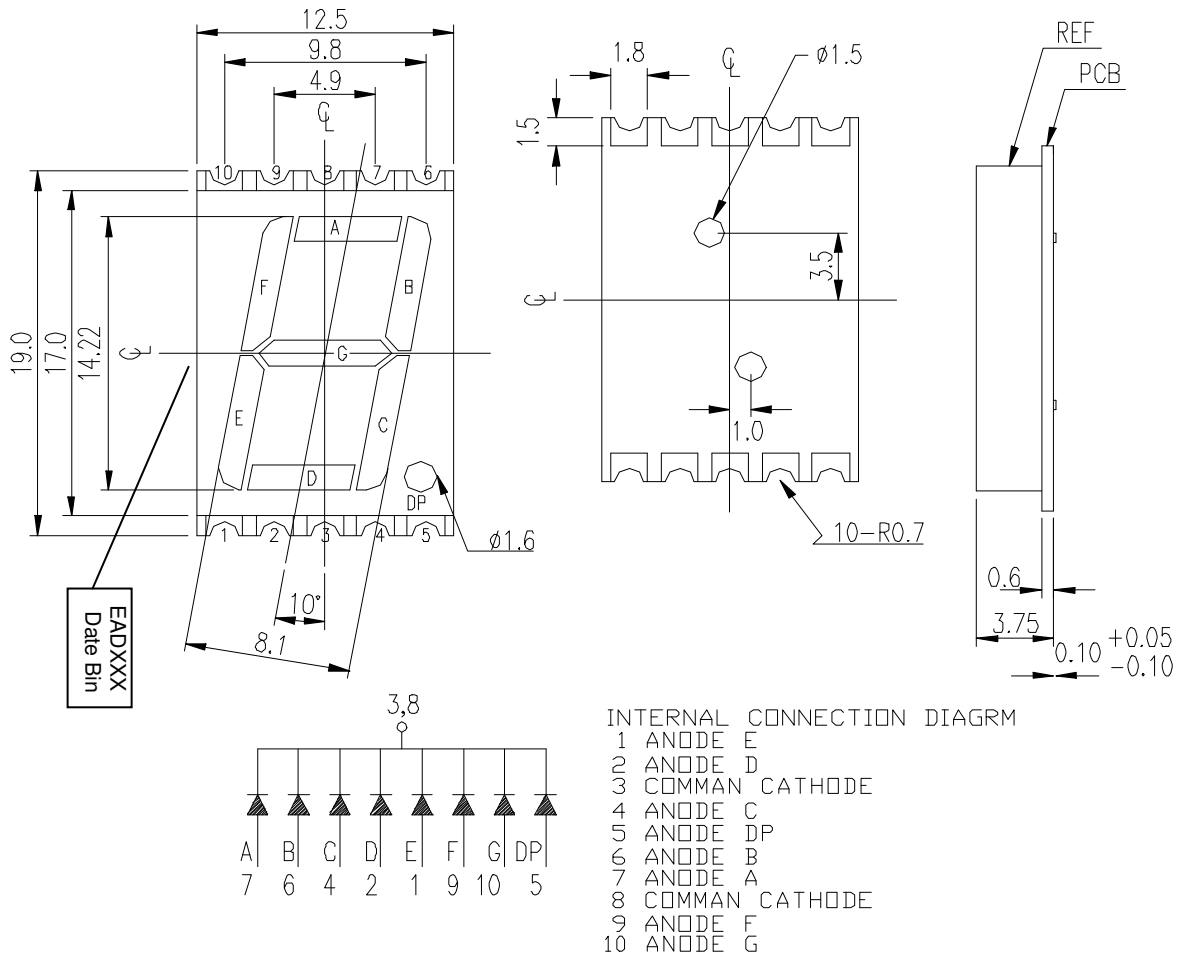
### Bin Range of Luminous Intensity

Bin Code	Min.	Max.	Unit	Condition
S	15.0	24.0	mcd	$I_F = 10\text{mA}$
T	21.0	34.0		
U	30.0	48.0		
V	42.0	67.0		
W	59.0	94.0		
X	83.0	133.0		

**Typical Electro-Optical Characteristics Curves**



**Package Dimension & Internal Circuit Diagram**

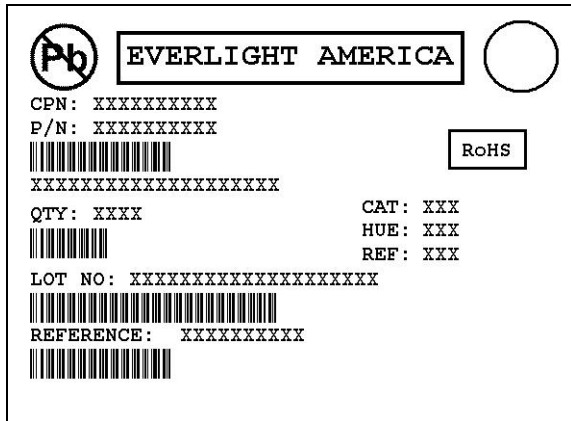


Note: Tolerances unless mentioned  $\pm 0.25\text{mm}$ . Unit = mm



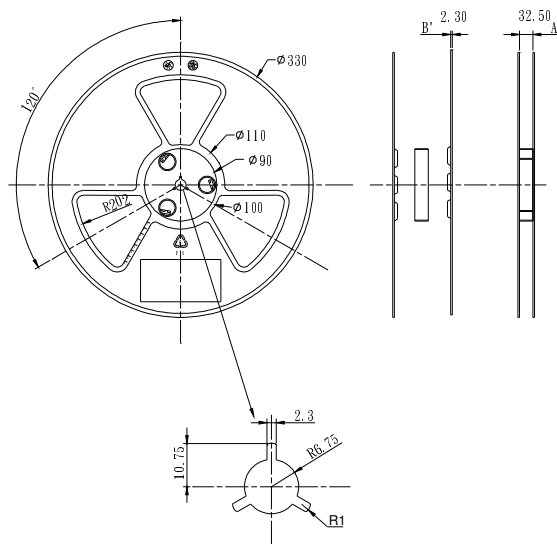
## Packing Materials

### Label Explanation

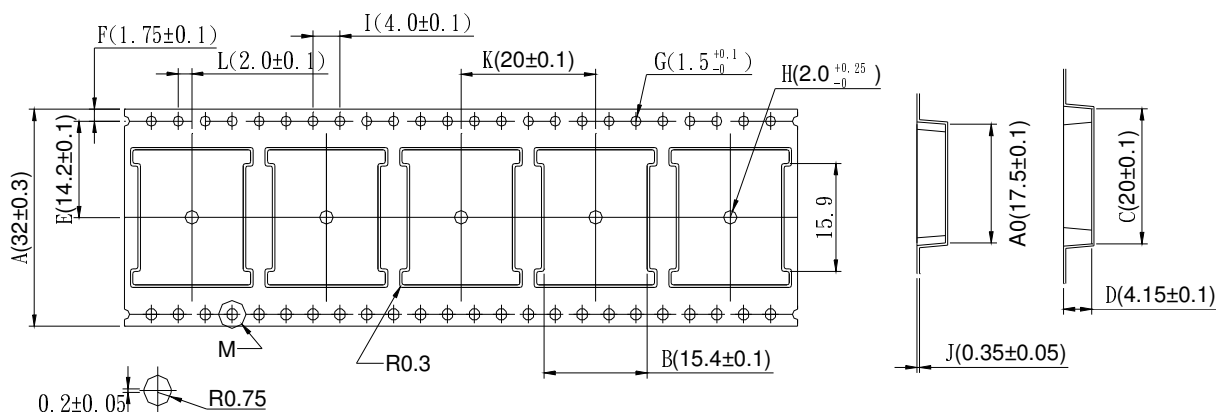


- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Reference
- REF: Reference
- LOT No: Lot Number
- DC: Year and Weekly
- REFERENCE: Volume Label code

### Reel Dimensions

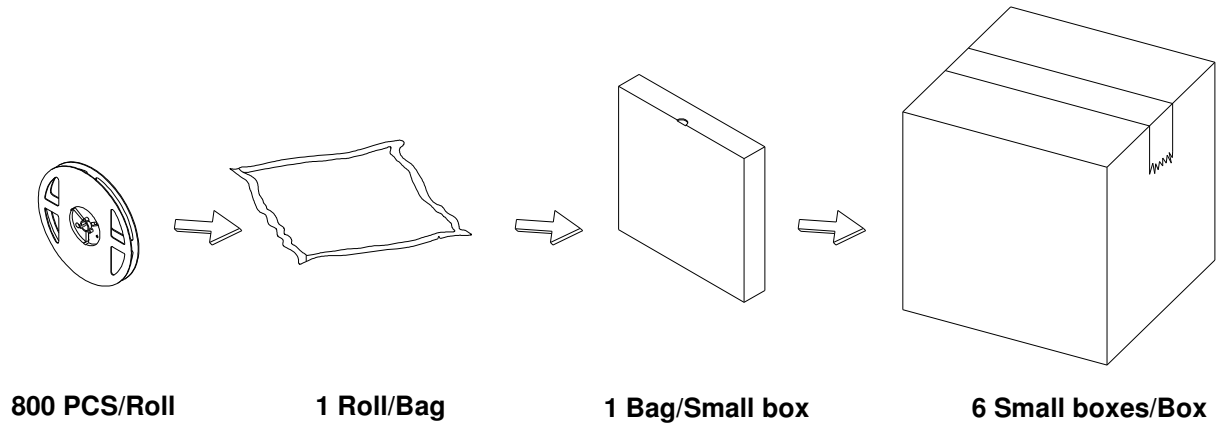


### Carrier Tape Dimensions: Loaded Quantity 800 PCS Per Reel



Note: Tolerances unless mentioned  $\pm 0.25$ mm. Unit = mm

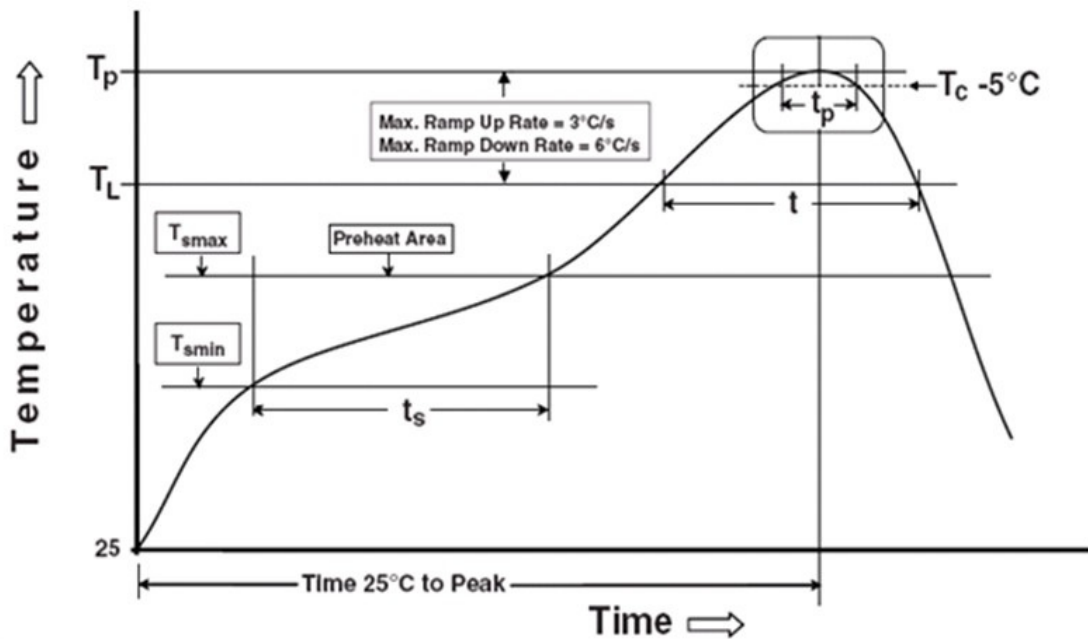
**Packing Process**



**Precautions for Use**

1. Soldering Condition

1.1 (A) Maximum Body Case Temperature Profile for evaluation of Reflow Profile



Note:

Reference: IPC/JEDEC J-STD-020D

**Preheat**

Temperature min ( $T_{smin}$ )	150 °C
Temperature max ( $T_{smax}$ )	200 °C
Time ( $T_{smin}$ to $T_{smax}$ ) ( $t_s$ )	60-120 seconds
Average ramp-up rate ( $T_{smax}$ to $T_p$ )	3 °C/second max.

**Other**

Liquidus Temperature ( $T_L$ )	217 °C
--------------------------------	--------





Grounded workstation equipment and tools

ESD table/shelf mat made of conductive materials

- Proper grounding is required for all devices, equipment, and machinery used in product assembly. Surge protection should be considered when designing of commercial products.
- If tools or equipment contain insulating materials such as glass or plastic, the following measures against electrostatic discharge are strongly recommended:

Dissipating static charge with conductive materials

Preventing charge generation with moisture

Neutralizing the charge with ionizers

5. The LEDs should be operated with forward bias. The driving circuit must be designed so that the LEDs are not subjected to forward or reverse voltage while it is off. If reverse voltage is continuously applied to the LEDs, it may cause migration resulting in LED damage.