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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!



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### 14.22mm (0.56INCH) THREE DIGIT NUMERIC DISPLAY

Part Number: BA56-11GWA

Green

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ERP: 1303000057

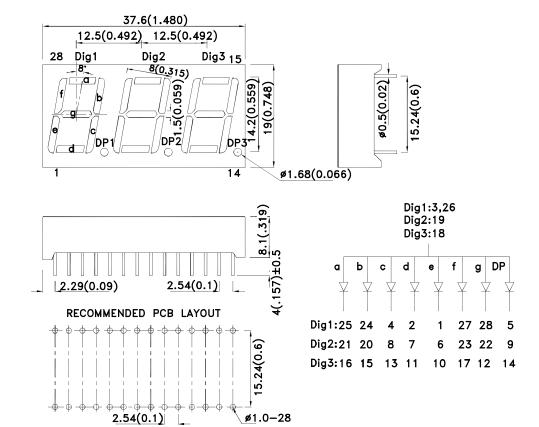
#### **Features**

- 0.56 inch digit height.
- Low current operation.
- Excellent character appearance.
- Easy mounting on P.C. boards or sockets.
- Mechanically rugged.
- Standard: gray face, white segment.
- RoHS compliant.

#### Description

The Green source color devices are made with Gallium Phosphide Green 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.

SPEC NO: DSAA5874 REV NO: V.11 DATE: MAR/23/2011

APPROVED: WYNEC CHECKED: Joe Lee DRAWN: J.Yu

#### **Selection Guide**

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
		,	Min.	Тур.	•
BA56-11GWA	Green (GaP)	White Diffused	3600	8600	Common Anode ,Rt. Hand Decimal.

#### Note:

#### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	565		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	30		nm	IF=20mA
С	Capacitance	Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	2.2	2.5	V	IF=20mA
lr	Reverse Current	Green		10	uA	VR=5V

#### Absolute Maximum Ratings at TA=25°C

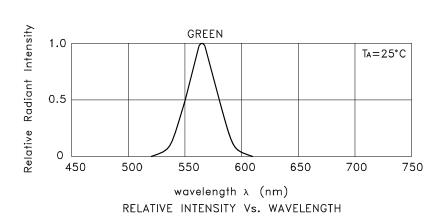
Parameter	Green	Units		
Power dissipation	62.5	mW		
DC Forward Current	25	mA		
Peak Forward Current [1]	140	mA		
Reverse Voltage	5	V		
Operating / Storage Temperature	perating / Storage Temperature -40°C To +85°C			
Lead Solder Temperature[2]	260°C For 3-5 Seconds			

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
 2. 2mm below package base.

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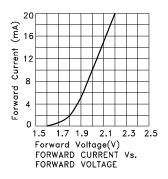
<sup>1.</sup> Luminous intensity/ luminous Flux: +/-15%.

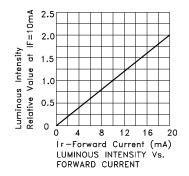
<sup>1.</sup>Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

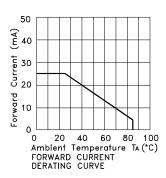


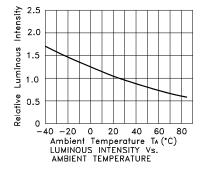
#### Green

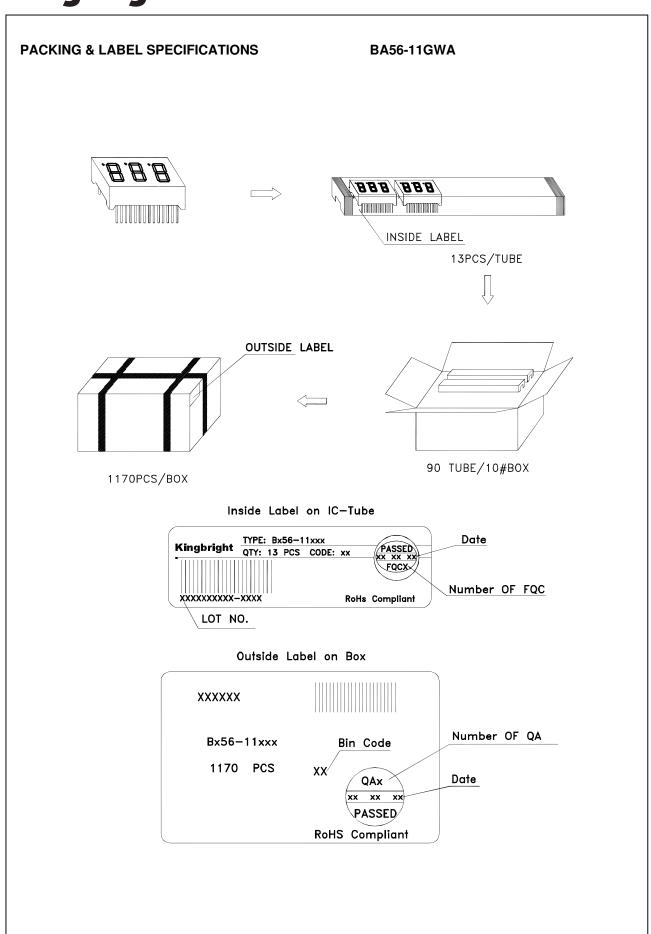
#### **BA56-11GWA**









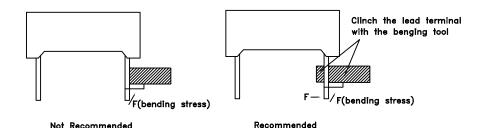


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#### THROUGH HOLE DISPLAY MOUNTING METHOD

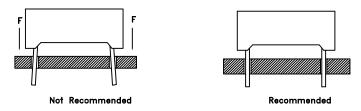
### Lead Forming

Do not bend the component leads by hand without proper tools. The leads should be bent by clinching the upper part of the lead firmly such that the bending force is not exerted on the plastic body.



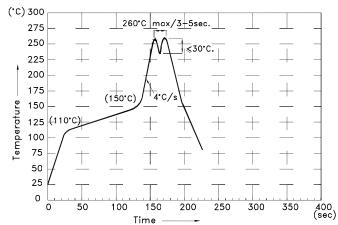
#### Installation

- 1. The installation process should not apply stress to the lead terminals.
- 2. When inserting for assembly, ensure the terminal pitch matches the substrate board's hole pitch to prevent spreading or pinching the lead terminals.



#### DISPLAY SOLDERING CONDITIONS

Wave Soldering Profile For Lead-free Through-hole LED.



#### NOTES:

- 1. Recommend the wave temperature 245°C  $\sim$  260°C. The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85°C.
- 3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.During wave soldering , the PCB top-surface temperature should be kept below 105°C
- 5.No more than once.

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### Soldering General Notes:

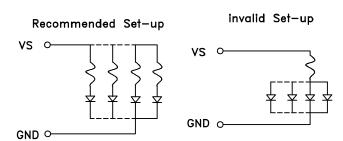
- a. Through—hole displays are incompatible with reflow soldering.
- b. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Kingbright for compatibility.

#### **CLEANING**

- 1.Mild "no-clean" fluxes are recommended for use in soldering.
- 2. If cleaning is required, Kingbright recommends to wash components with water only. Do not use harsh organic solvents for cleaning, because they may damage the plastic parts .And the devices should not be washed for more than one minute.

#### 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.



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