

# PRODUCT SPECIFICATION

*Part Number*  
**PLH0402-WDA03**

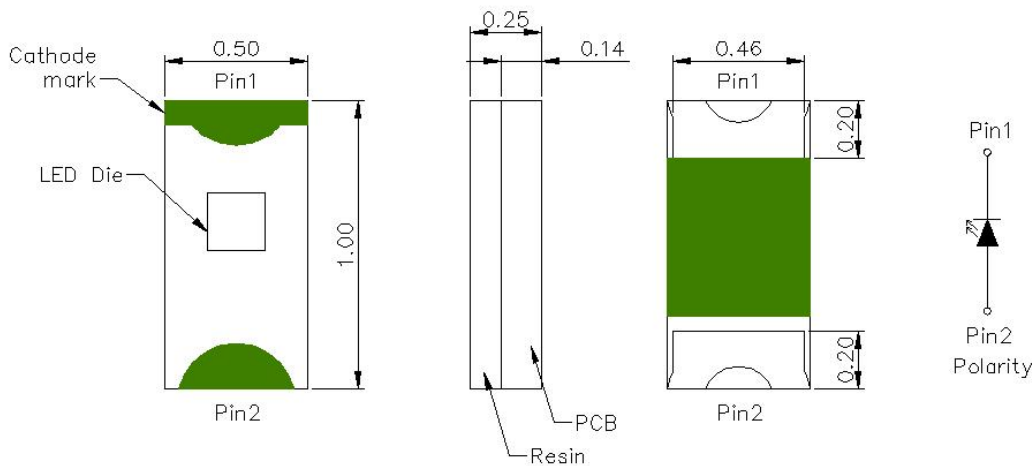
## Details

- 0402 SMD LED
- 1.0 x 0.50 x 0.25 mm
- AlInGaP chip material, Amber
- Packaged on 3,000 piece reels

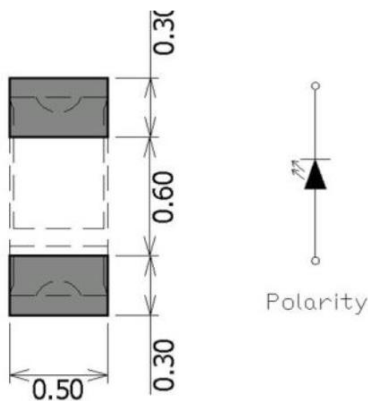
## Features

- Durable and Rugged
- RoHS Compliant
- Thin design

## Mechanical Dimensions



## Soldering Pattern



### Notes:

1. Dimensions in millimeters unless otherwise noted
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.
3. Specifications subject to change without notice





**Device Selection Guide**

Model Number	Chip		Resin
	Material	Emitting Color	
PLH0402-WDA03	AlInGaP	Amber	Clear

**Absolute Maximum Ratings at Ta=25°C**

P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> * (mA)	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)
48	20	40	5	-40°C~+85°C	-40°C~+100°C

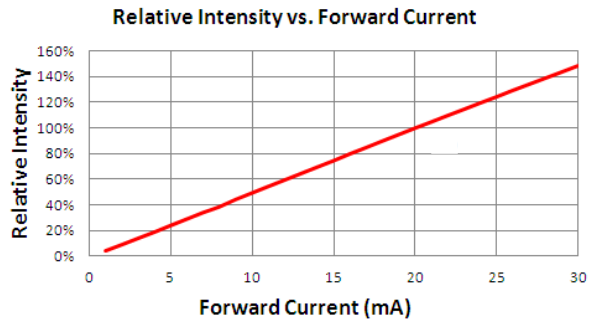
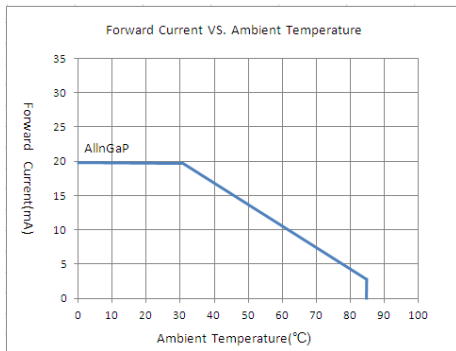
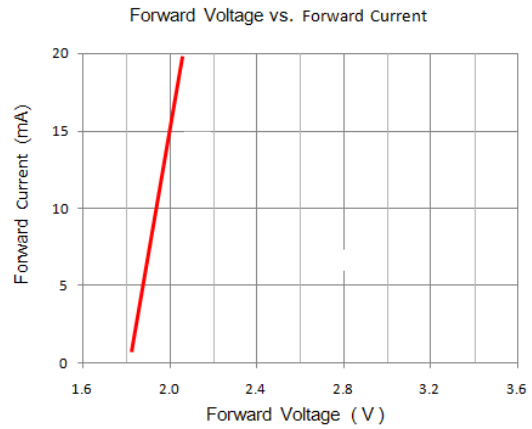
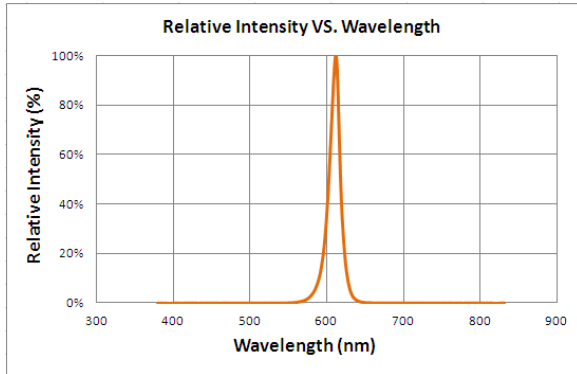
Note: 1. Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width

2. This product should be operated in forward bias. If a reverse voltage is continuously applied to the product, such operation can cause migration resulting in LED damage.

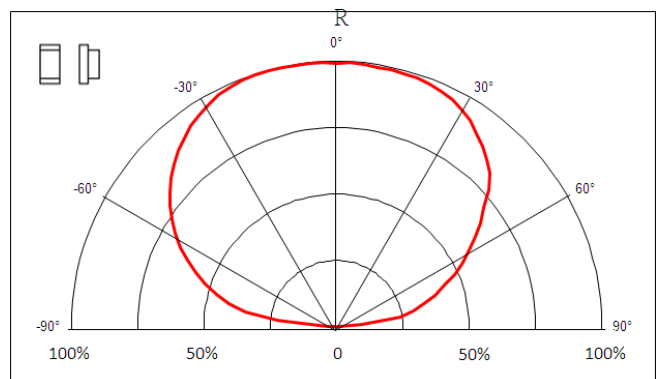
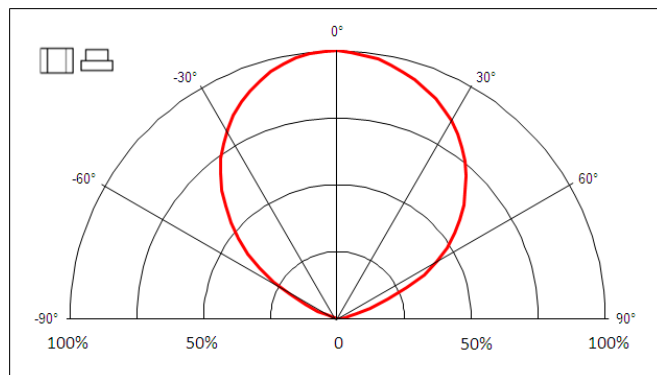
**Electrical and Optical Characteristics at Ta=25°C**

I <sub>F</sub> (mA)	V <sub>F</sub> (V)		Wavelength (nm) typ.			I <sub>V</sub> * (mcd)	Viewing Angle 2θ½
	Typ.	Max.	λ <sub>D</sub>	λ <sub>P</sub>	Δλ	Typ.	
20	2.0	2.4	605	611	17	112.5	X: 100 Y: 130

### Electrical and Optical Curves



### Directive Characteristics



***Luminous Intensity ( $I_v$ ) Bin***

Bin	Luminous Intensity Range (mcd)	
	Minimum	Maximum
<b>P</b>	45.0	71.5
<b>Q</b>	71.5	112.5
<b>R</b>	112.5	180.0
<b>Q</b>	180.0	285.0

Note: @20mA /  $T_a=25^{\circ}$  C, Tolerance:  $\pm 10\%$

***Dominant Wavelength ( $\lambda_D$ ) Bin:***

Color	Bin Code	Spec. Range
<b>Amber (A03)</b>	<b>B</b>	600.0-603.0 nm
	<b>C</b>	603.0-606.0 nm
	<b>D</b>	606.0-609.0 nm
	<b>E</b>	609.0-612.0 nm

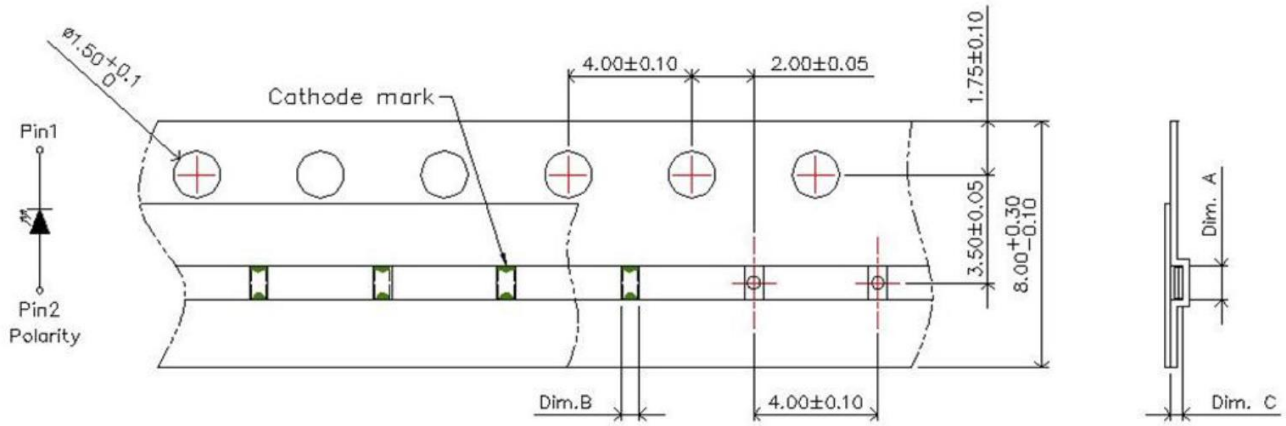
Note: @20mA /  $T_a=25^{\circ}$ C, Tolerance:  $\pm 0.5$ nm

***Forward Voltage ( $V_F$ ) Bin:***

Color	Bin Code	Spec. Range
<b>Amber (A03)</b>	<b>E1</b>	1.6-1.7 V
	<b>E2</b>	1.7-1.8 V
	<b>E3</b>	1.8-1.9 V
	<b>E4</b>	1.9-2.0 V
	<b>F1</b>	2.0-2.1 V
	<b>F2</b>	2.1-2.2 V
	<b>F3</b>	2.2-2.3 V
	<b>F4</b>	2.3-2.4 V

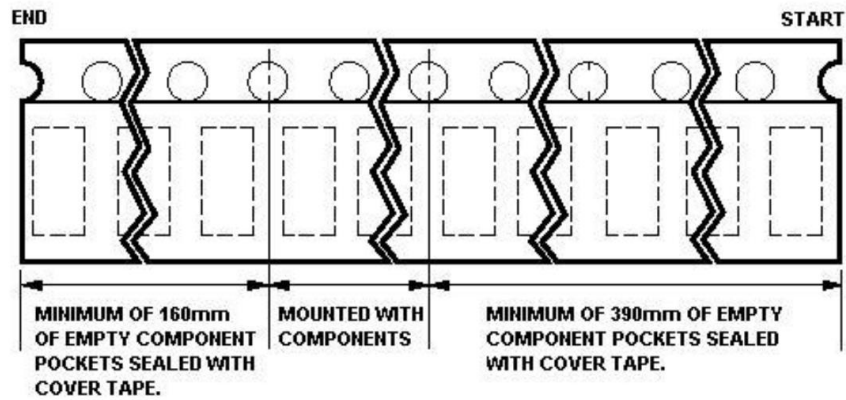
Note: @20mA /  $T_a=25^{\circ}$ C, Tolerance:  $\pm 0.05$  V

### Tape Dimensions

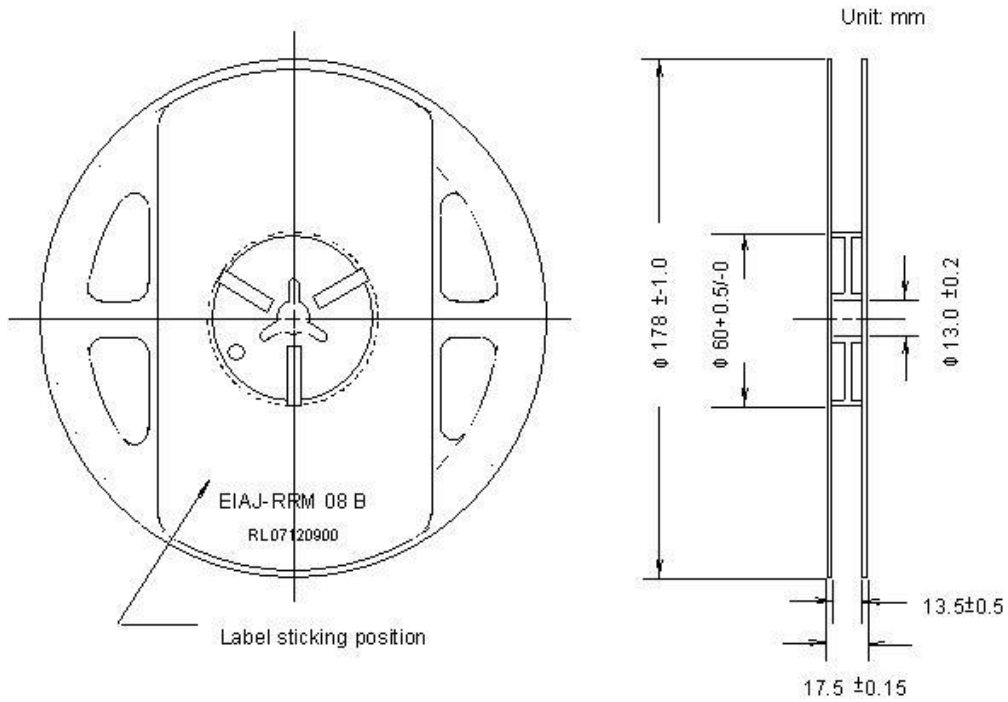


Dim. A	Dim. B	Dim. C	Q'ty/Reel
$1.11 \pm 0.03$	$0.60 \pm 0.03$	$0.38 \pm 0.03$	3K

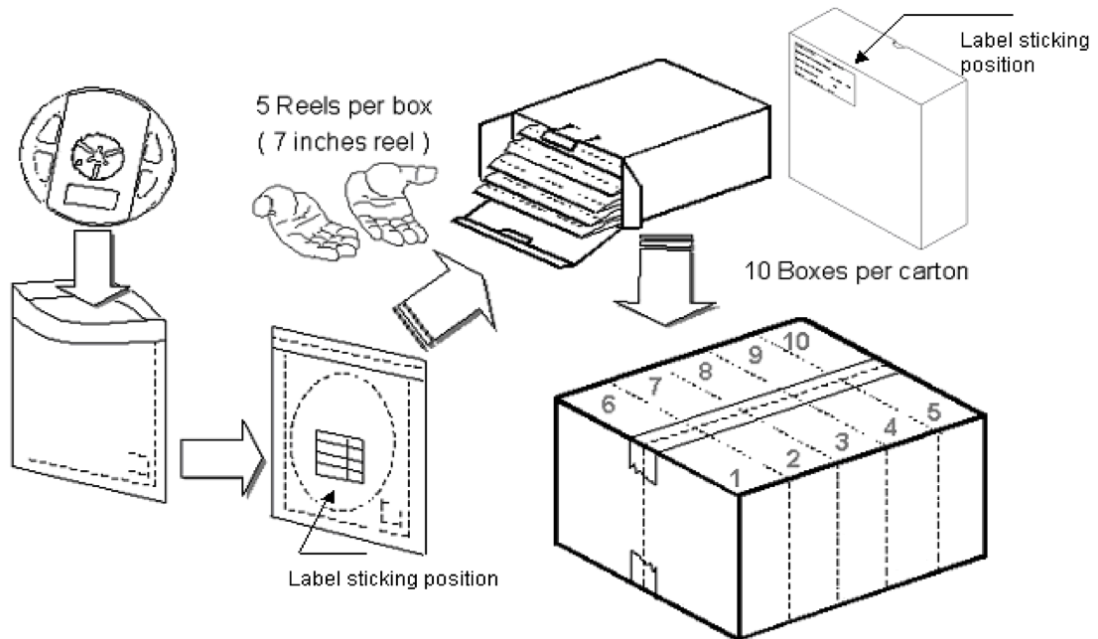
Unit: mm



### Reel Specifications



### Packing



<b>PLH0402-WDA03 Customer Approval Signatures</b>	<b>Approved By</b>	<b>Checked By</b>	<b>Prepared By</b>

<i>Record Of Revisions</i>			
Rev.	Description	Date	Page
0	Released Spec	08/11/15	--