

Part Number: AM27MGC03

Mega Green

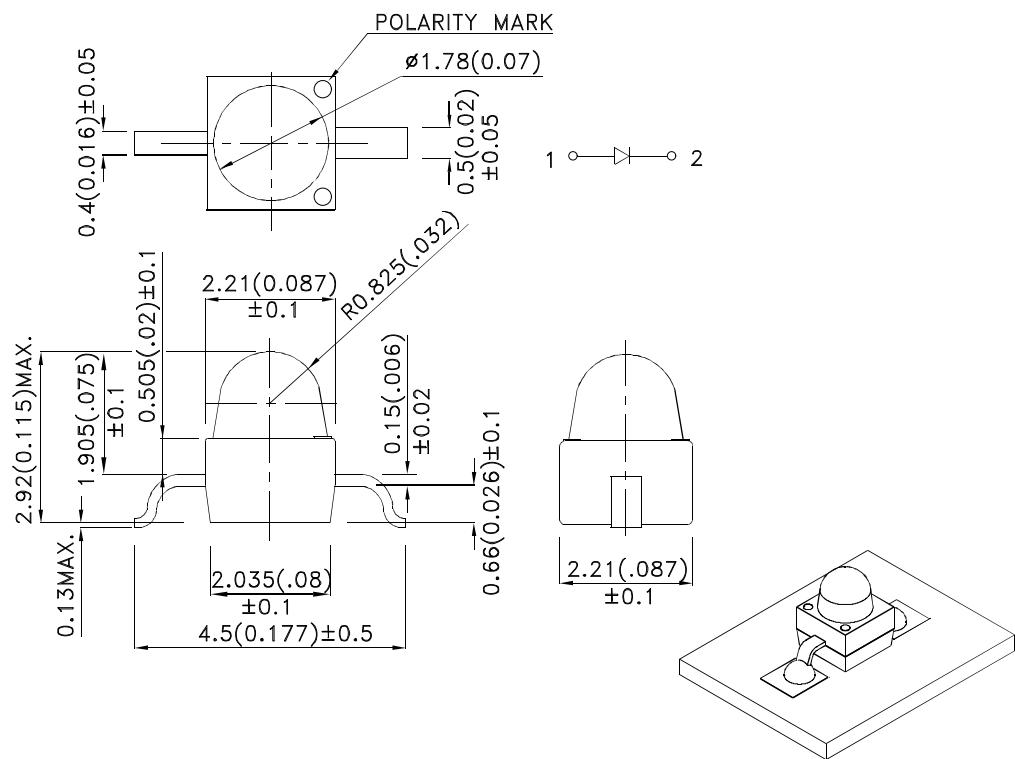
## Features

- Subminiature package.
- Gull wing.
- Long life - solid state reliability.
- Low package profile.
- Package :1000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

## Description

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

## Package Dimensions



### Notes:

1. All dimensions are in millimeters (inches).  
2. Tolerance is  $\pm 0.25$ (0.01") unless otherwise noted.  
3. Lead spacing is measured where the leads emerge from the package.  
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.  
5. The device has a single mounting surface. The device must be mounted according to the specifications.



**SPEC NO: DSAA8141**

**APPROVED: WYNÉC**

REV NO: V.9

CHECKED: Allen Liu

DATE: APR/14/2011

DRAWN: J.Yu

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ERP: 1202000285

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## Selection Guide

Part No.	Dice	Lens Type	I <sub>v</sub> (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	
AM27MGC03	Mega Green (AlGaInP)	Water Clear	500	800	20°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Mega Green	574		nm	I <sub>F</sub> =20mA
λD [1]	Dominant Wavelength	Mega Green	570		nm	I <sub>F</sub> =20mA
Δλ1/2	Spectral Line Half-width	Mega Green	26		nm	I <sub>F</sub> =20mA
C	Capacitance	Mega Green	20		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Mega Green	2.1	2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Mega Green		10	uA	V <sub>R</sub> =5V

Notes:

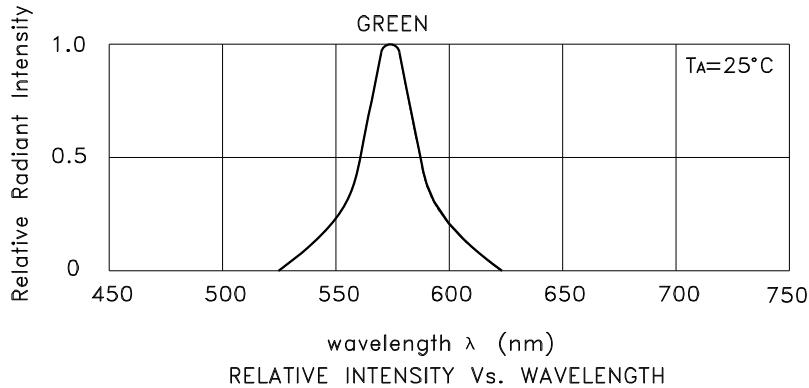
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

Parameter	Mega Green	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

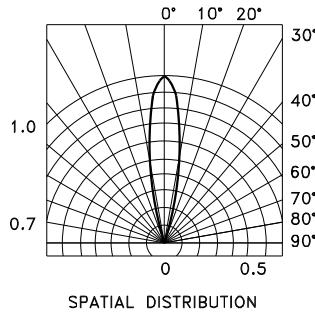
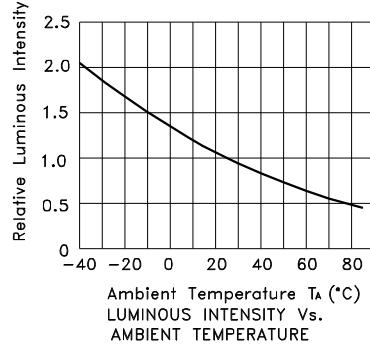
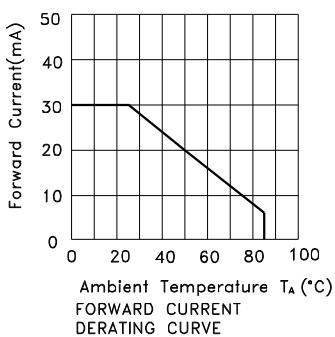
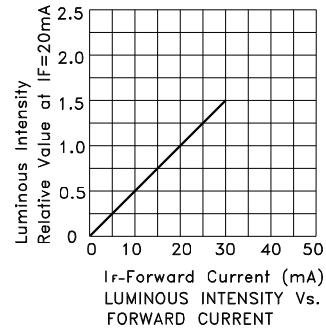
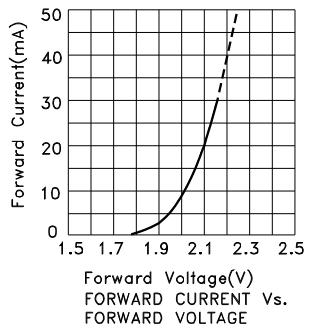
Note:

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



Mega Green

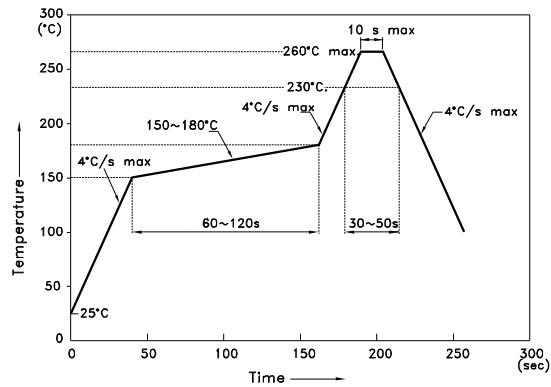
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**Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.**

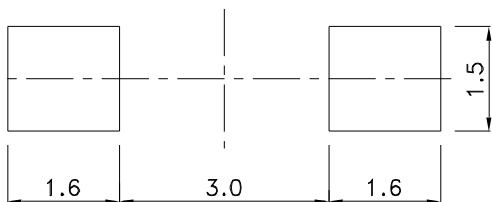
## Reflow Soldering Profile For Lead-free SMT Process.



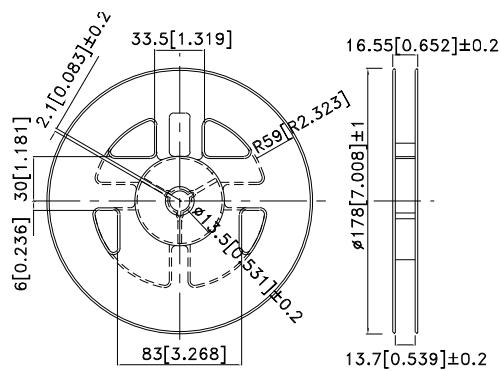
NOTES:

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.

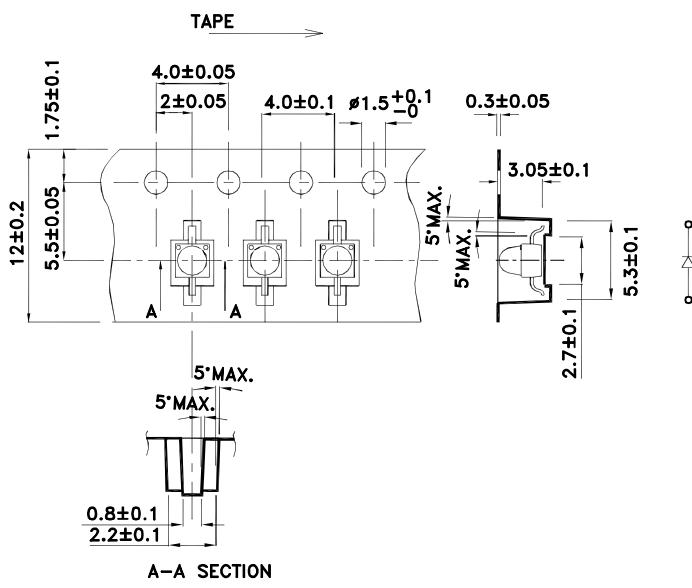
## Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



## Reel Dimension



## **Tape Dimensions (Units : mm)**



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## PACKING & LABEL SPECIFICATIONS

AM27MGC03

