

#### 4.5x2mm SMD CHIP LED LAMP

APD2520MGC03

MEGA GREEN

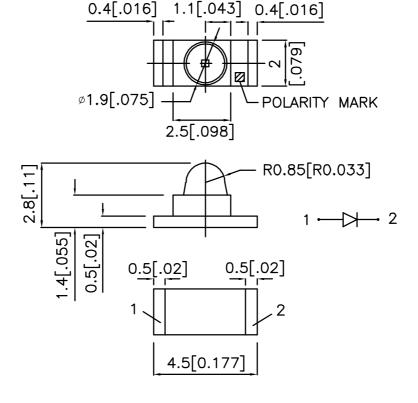
#### **Features**

- •4.5x2mm SMT LED,0.5mm THICKNESS
- •LOW POWER CONSUMPTION.
- •IDEAL FOR BACKLIGHT AND INDICATOR.
- •VARIOUS COLORS AND LENS TYPES AVAILABLE.
- •PACKAGE: 1000PCS/REEL.
- •Rohs Compliant.

#### **Description**

The Mega Green source color devices are made with DH InGaAIP on GaAs substrate Light Emitting Diode.

### **Package Dimensions**



#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

SPEC NO: DSAD1076 APPROVED: J. Lu REV NO: V.2 CHECKED: Allen Liu DATE: MAR/10/2005 DRAWN: W.J.ZHU PAGE: 1 OF 4 ERP:1203001025

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#### **Selection Guide**

Part No.	Dice	Dice Lens Type Iv (mcd) @ 20mA		,	Viewing Angle
			Min.	Тур.	201/2
APD2520MGC03	MEGA GREEN (InGaAIP)	WATER CLEAR	110	400	20°

Note

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Mega Green	574		nm	IF=20mA
λD	Dominant Wavelength	Mega Green	568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Mega Green	26		nm	IF=20mA
С	Capacitance	Mega Green	20		pF	VF=0V;f=1MHz
VF	Forward Voltage	Mega Green	2.1	2.5	V	IF=20mA
IR	Reverse Current	Mega Green		10	uA	VR = 5V

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

Parameter	Mega Green	Units	
Power dissipation	105	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	150	mA	
Reverse Voltage	5	V	
Operating/Storage Temperature	-40°C To +85°C		

Note

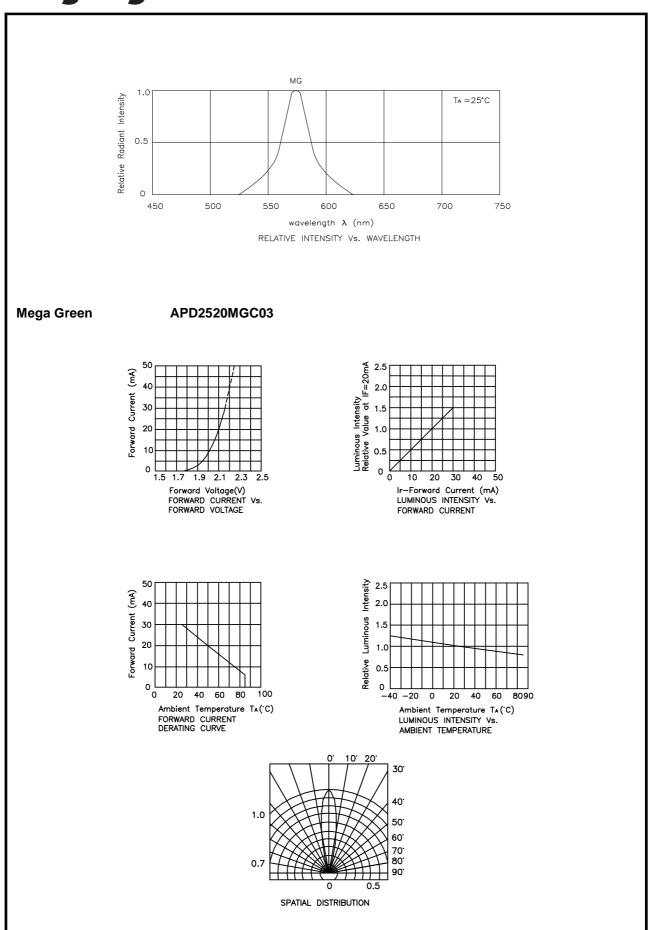
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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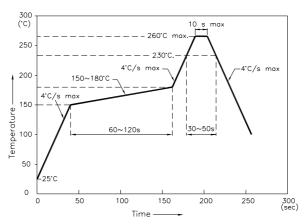
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#### APD2520MGC03

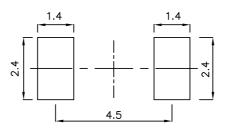
Reflow Soldering Profile For Lead-free SMT Process.



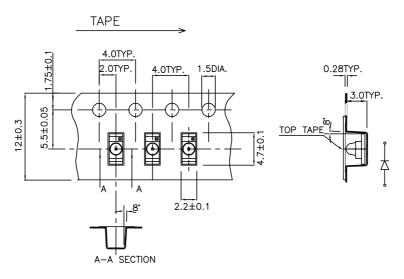
NOTES:

- 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)



## Tape Specifications (Units: mm)



#### Remarks:

If there is sorting requirement (eg. forward voltage, luminous intensity or wavelength), the condition as follows:

- 1. Wavelength: +/-1nm (Test condition is based on the sorting standard).
- 2.Luminous intensity: +/-15% (Test condition is based on the sorting standard).
- 3. Forward voltage: +/-0.1V (Test condition is based on the sorting standard).

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