4.5x2mm SMD CHIP LED LAMP



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

APD2520MBC03

BLUE

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 Blue source color devices are made with GaN on SiC Light Emitting Diode.

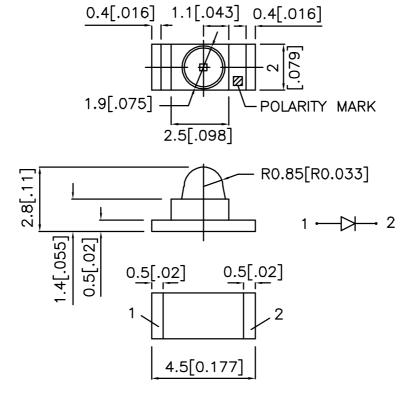
Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or

anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

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: DSAA7717 APPROVED: J. Lu REV NO: V.3 CHECKED: Allen Liu DATE: MAR/10/2005 DRAWN: W.J.ZHU PAGE: 1 OF 4 ERP:1203001023

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) @ 20mA Min. Typ.		Viewing Angle
					201/2
APD2520MBC03	BLUE (GaN)	WATER CLEAR	10	40	20°

Note:

Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	430		nm	I=20mA
λD	Dominant Wavelength	Blue	466		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue	60		nm	I=20mA
С	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF	Forward Voltage	Blue	3.8	4.5	V	I==20mA
IR	Reverse Current	Blue		10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

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

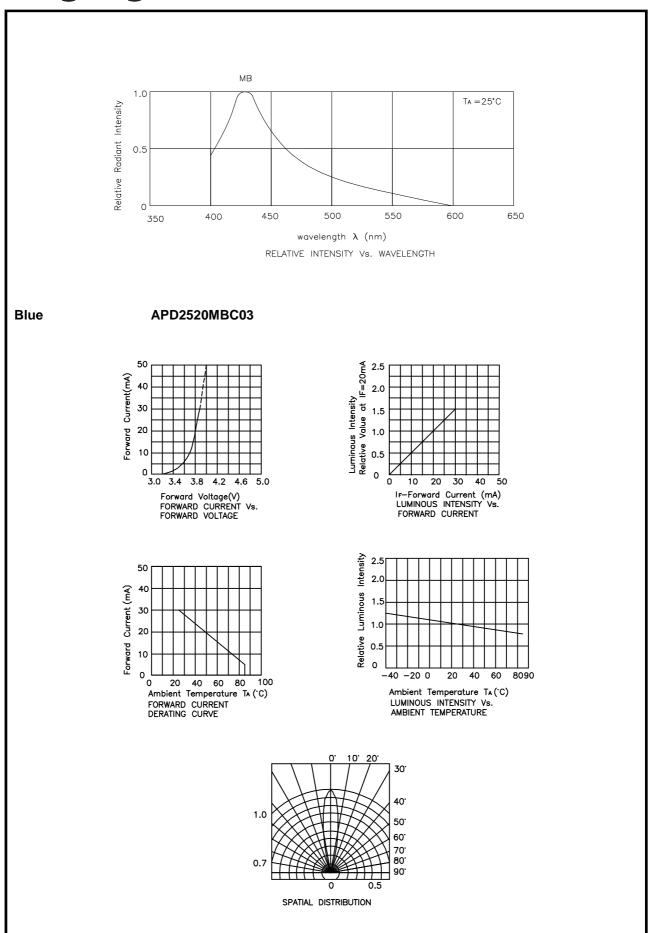
Note:

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

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^{1.} θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

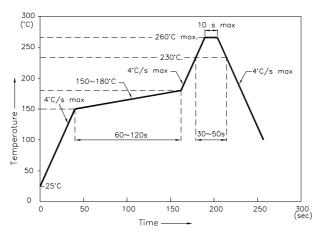


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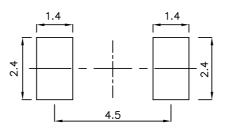
Reflow Soldering Profile For Lead-free SMT Process.



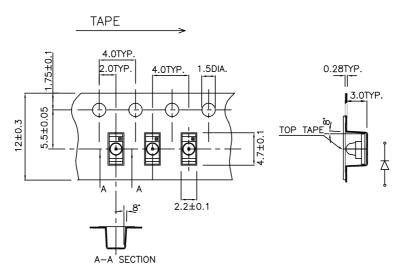
NOTES:

- 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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