

RoHS  
Compliant

## Features

- Reflow Solderable
- High Luminous Intensity and Low Power Dissipation
- Good Reliability and Long Life
- Lead Free

## Applications

- Optical indicator
- Indoor display
- Backlighting in dashboard and switch
- Flat backlighting for LCD, symbol and display
- General use

## Specifications

Dice material	: AlGaInP
Emmiting Colour	: Green
Lens colour	: Clear

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

Parameter	Symbol	Min.	Typ	Max	Units	Test conditions
Forward voltage	VF	1.8	-	2.4	V	IF=20mA
Reverse Current	IR	-	-	10	uA	VR=5V
Dominant wavelength	$\lambda_d$	567	-	576	nm	IF=20mA

## Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	48	mW
DC Forward Current	IF	20	mA
Peak Forward Current [1]	IFP	75	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C

### Notes:

1. 1/10 Duty cycle, 0.1ms pulse width.
2. Measurement Errors: Forward Voltage:  $\pm 0.1V$
3. The tolerance of wave length  $\pm 1nm$

## Selection Guide

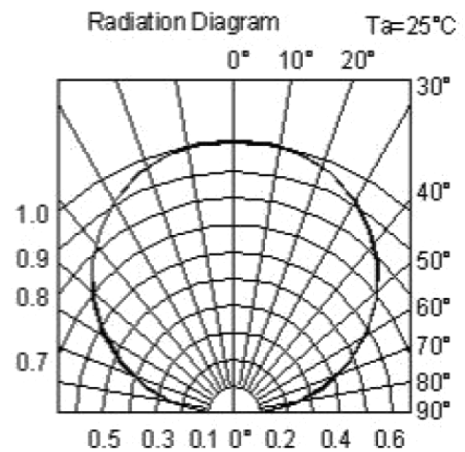
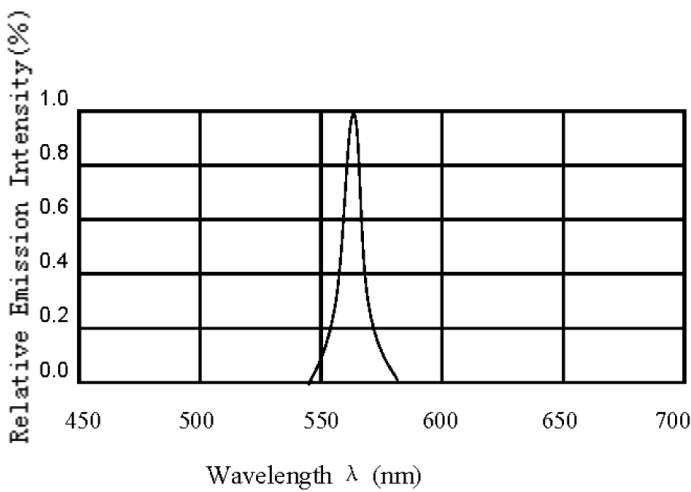
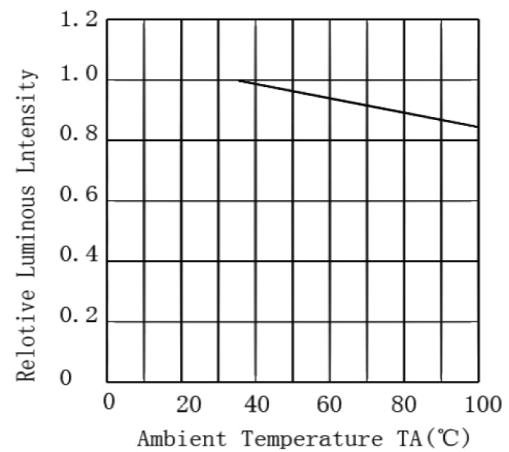
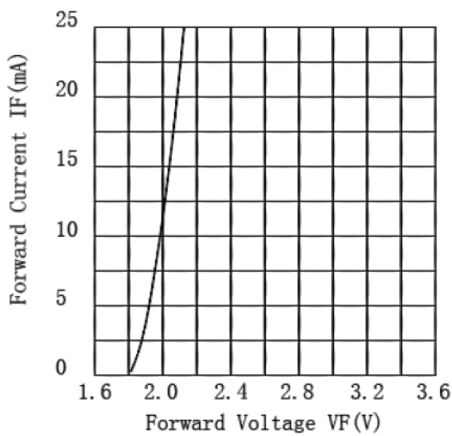
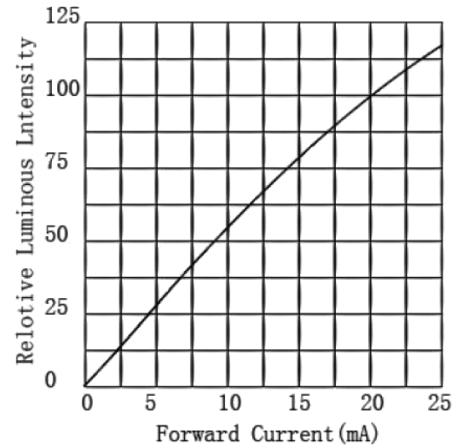
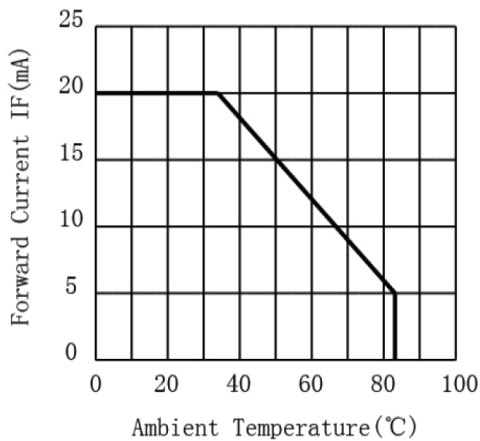
Part Number	Chip materials	Lens Type	Luminous intensity (mcd) @ 20mA			Viewing Angle
			Min	Typ	Max	
MP008291	Green (AlGaInP)	Clear	20	-	70	120

### Note:

1. 2 $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 2 $\theta$ 1/2 the optical centerline value.
2. The above luminous intensity measurement allowance tolerance  $\pm 10\%$

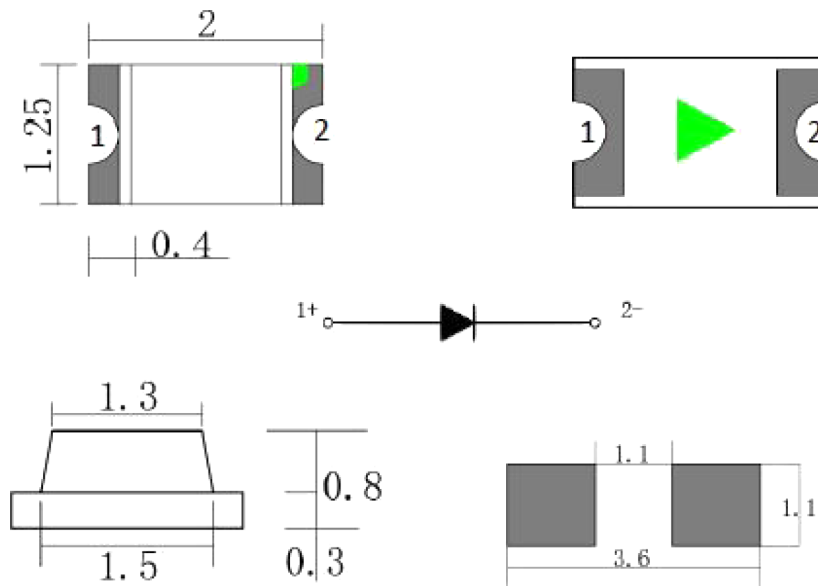
## Typical optical characteristics curves

Ambient Temperature VS. Forward Current



# 0805 SMD Chip LED

## Dimensions



### Notes

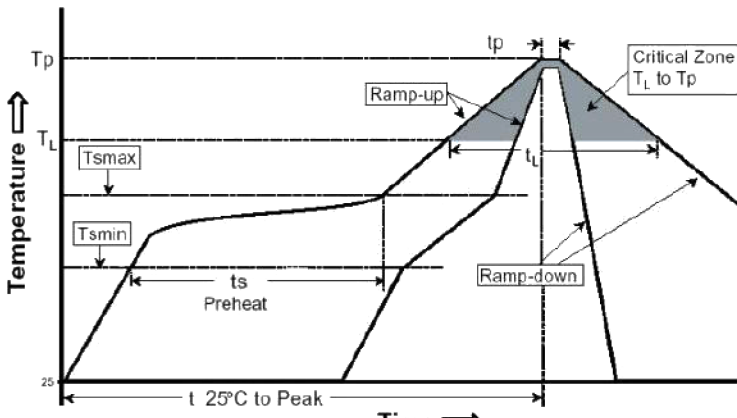
1. All dimension tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted.
2. All PCB and markings are subject to change without prior notice.
3. Polarity mark:  $\blacktriangledown$  or T

Dimensions : Millimetres

## SMT Reflow Soldering Instructions

1. High temperature welding recommended no more than 2 times
2. When soldering , do not put stress on the LEDs during heating
3. Reflow temperature distribution (Acc.to J-STD-020D)

Profile feature	Sn-Pb Eutectic Assembly		Pb-Free Assembly	
	Large body	Small body	Large body	Small body
Average ramp-up rate (TL to Tp)	3°C / second max.			
Preheat	100°C		150°C	
-Temperature Min (TSmin)	150°C		200°C	
-Temperature Max (TSmax)	60 to 120 seconds		60 to 180 seconds	
-Time (min to max) (ts)				
Tsmax to TL	3°C / second max.			
-Ramp-up Rate				
Time maintained above	183°C		217°C	
-Temperature (TL)	60 to 150 seconds		60 to 150 seconds	
-Time (tL)				
Peak Temperature (Tp)	225 $\pm 0/-5^\circ\text{C}$	240 $\pm 0/-5^\circ\text{C}$	245 $\pm 0/-5^\circ\text{C}$	260 $\pm 0/-5^\circ\text{C}$
Time within 5°C of actual Peak Temperature (tp)	10 to 30 seconds		10 to 30 seconds	20 to 40 seconds
Ramp-down Rate	6°C / second max.			
Time 25°C to Peak Temperature	6 minutes max.		8 minutes max.	



### Soldering iron

1. When hand soldering, the temperature of the iron must be less than 350°C for 3 seconds
2. The hand solder should be done only once

### Part Number Table

Description	Part Number
Chip LED, Green, 576nm, 120°, 70mcd, Surface Mount	MP008291

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro  
 Farnell.com/multicomp-pro  
 Element14.com/multicomp-pro