



**THE DATASHEET OF  
ESS-JC170TGJRKT**



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## DATA SHEET

ESL NO.. : ESS-JC170TGJRKT

CUS NO. :

REV : A / 0

Producer: *Eden*

Auditor \_\_\_\_\_

Approver: *Jack*

CUSTOMER'S APPROVAL : \_\_\_\_\_

DCC : \_\_\_\_\_

0805 SMD LED

ESS-JC170TGJRKT

REV:A / 0

※ **Features:**

1. 0805 package
2. Top view LED
3. Compatible with infrared and vapor phase reflow solder process.
4. Wide viewing angle
5. Pb-free
6. RoHS compliant

※ **Applications:**

1. High Luminous Intensity
2. good Reliability
3. Low Power Dissipation

※ **Color**

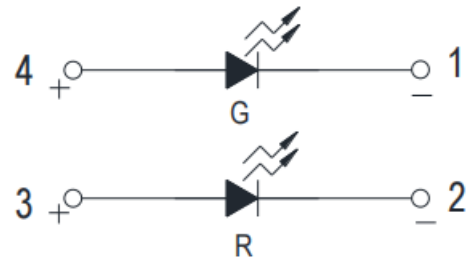
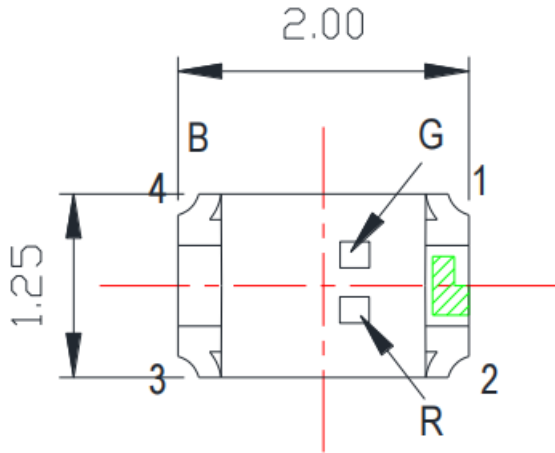
- \* Dice Material : InGaN / AlGaInP
- \* Light Color : Red / Green
- \* Lens Color : Colorless

# 0805 SMD LED

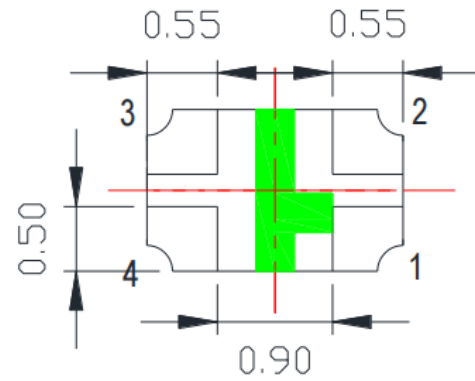
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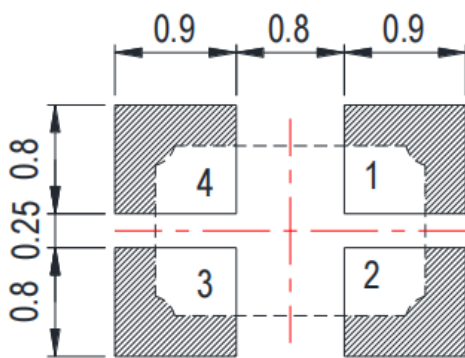
※ Package Outline Dimension:



Polarity



Recommended Solder Pad



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.10$ mm unless otherwise specified.
3. Specifications are subject to change without notice.

## 0805 SMD LED

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## ※ Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating		Unit
		R	G	
Power Dissipation	Pd	65	90	mW
Pulse Forward Current *	I <sub>FP</sub>	75	100	mA
Forward current	I <sub>F</sub>	25	25	mA
Operating Temperature	Topr	-30°C ~ + 90°C		-
Storage Temperature	Tstg	-40°C ~ +90°C		-
Reverse Voltage	VR	5		V

Note:

The products are sensitive to static electricity and must be carefully taken when handling products.

## ※ Electrical-optical characteristics(Ta=25°C)

Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V <sub>f</sub>	R	1.8		2.4	V	I <sub>F</sub> =20mA
		G	2.8		3.4		
Luminous Intensity	I <sub>v</sub>	R	70		180	mcd	
		G	300		550		
Viewing Angle	2θ <sub>1/2</sub>	R/G	-	120		deg	
Reverse Current	I <sub>R</sub>	R/G		-	5	μA	
Wavelength	λ	R		630		nm	
		G		525			

Note: 1. Tolerance of luminous intensity is ±10%

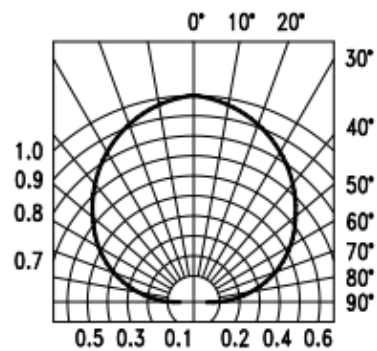
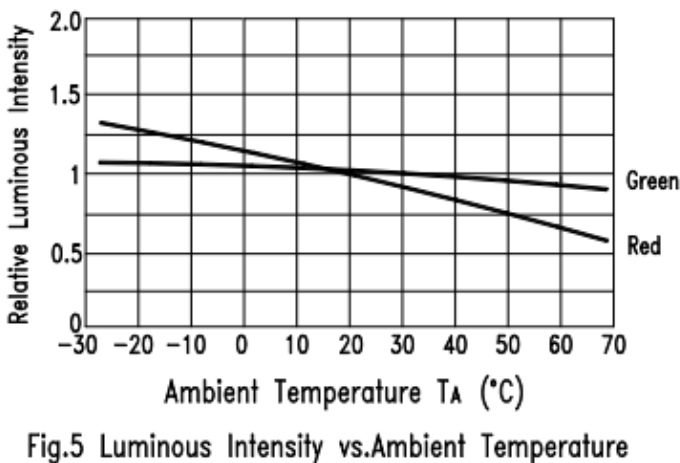
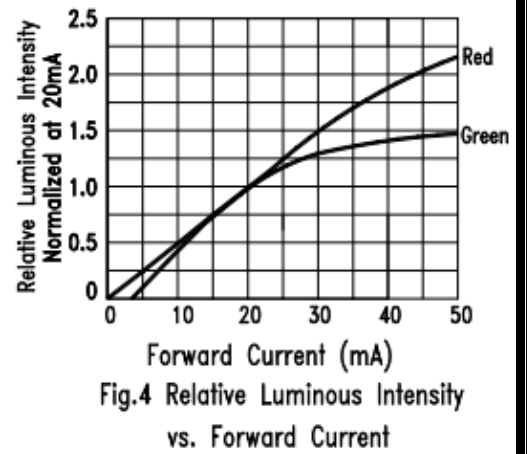
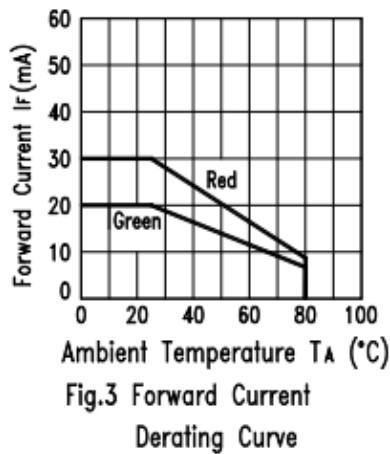
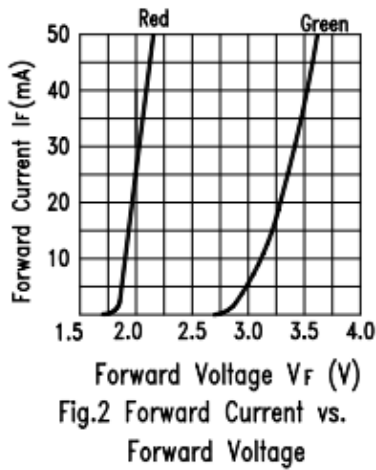
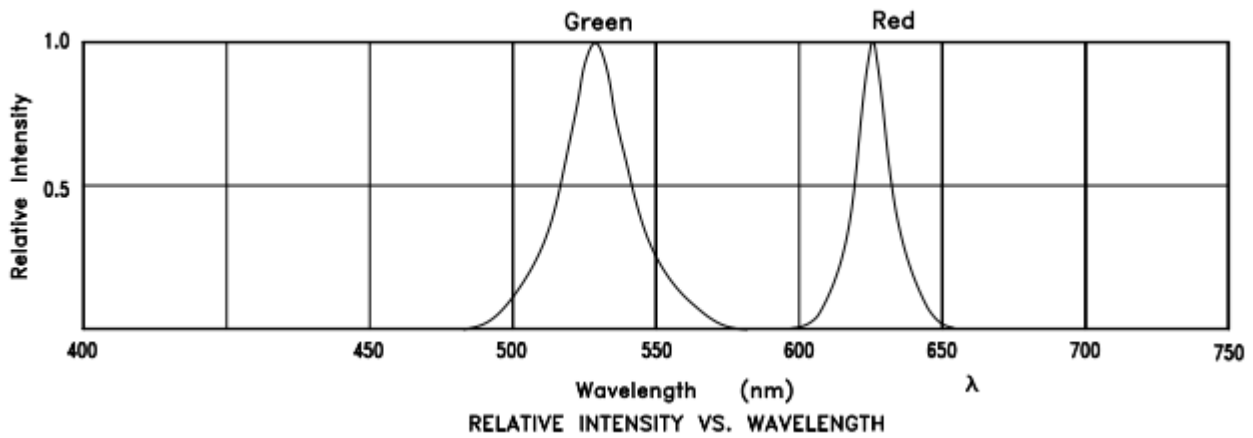
2. Tolerance of forward voltage is ±0.05V

2. Tolerance of Dominant Wavelength is ±0.1nm

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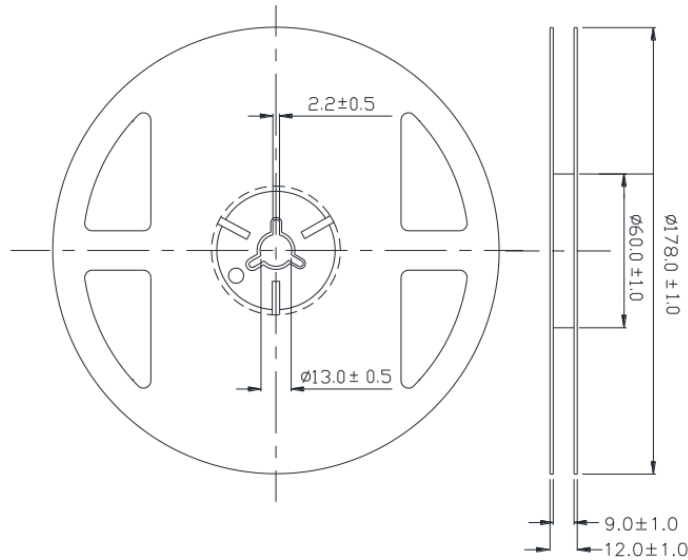


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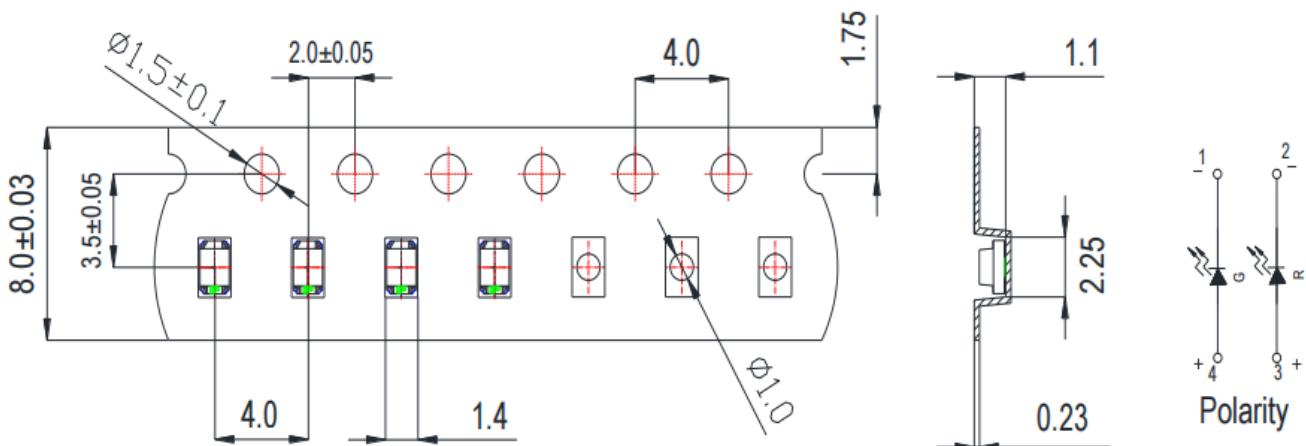
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## ※ Package Tape Specifications: (3000 pcs/Reel)



Note:  
Tolerances unless mentioned  $\pm 0.1$ mm, Unit = mm.



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# 0805 SMD LED

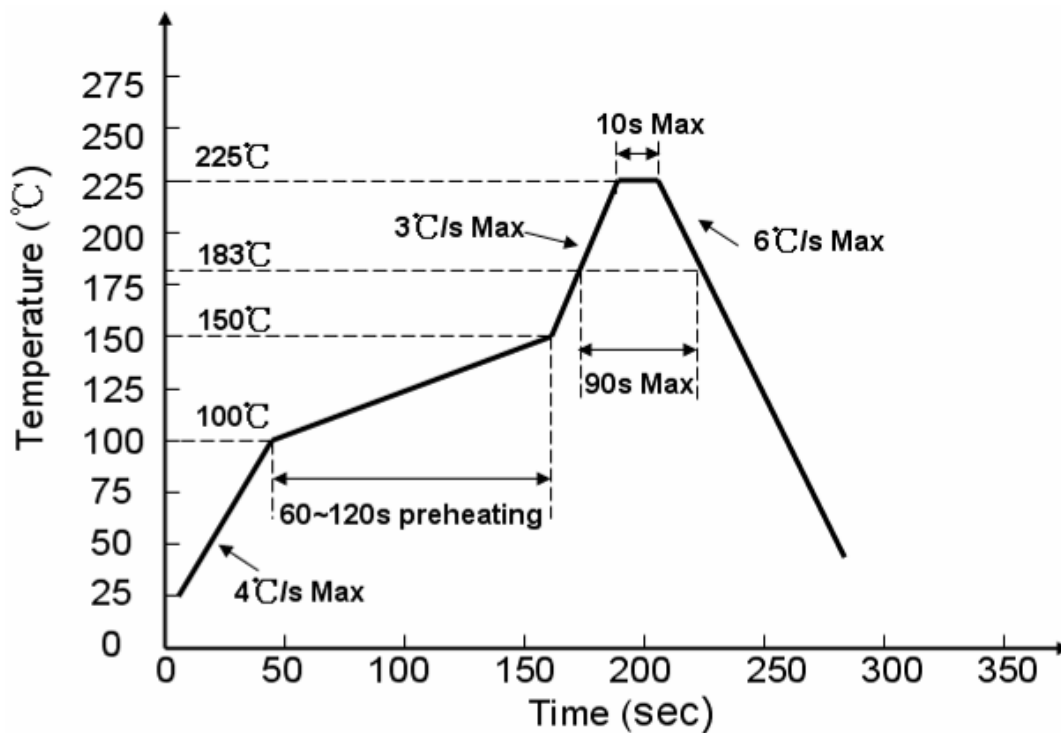
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## ※ Precautions for use :

1. Customer must apply the current limiting resistor in the circuit so as to drive the LEDs within the rated current. Otherwise slight voltage shift maybe will cause big current change and burn out will happen.
2. Also, caution should be taken not to overload the LEDs with instantaneous high voltage at the turning ON and OFF of the circuit.
3. Storage:
  - a) 3.1 Don't open the moisture proof bag before ready to use the LEDs.
  - b) 3.2 The LEDs should be kept at 30°C or less and 60%RH or less before opening the package. The max. storage period before opening the package is 1 year.
  - c) 3.3 After opening the package, the LEDs should be kept at 30°C/35%RH or less, and it should be used within 7 days.
  - d) 3.4 If the LEDs be kept over the conditions of 3.4, baking is required before mounting. Baking condition as below: 60±5°C for 12 hrs.
4. Soldering condition:

### 4.1 Lead Solder:



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**4.2 Lead Free Solder:**

**Note:**

- a) 1.Reflow soldering should not be done more than two times.
- b) 2. Don't put stress on the LEDs when soldering.
- c) 3.Don't warp the circuit board before it have been returned to normal ambient conditions after soldering

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