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DATA SHEET

ESL NO.. : ESS-5050UR3-TY

CUS NO. :

REV : A / 0

Producer: _____

张帆

Auditor _____

Approver: _____

沈云

CUSTOMER'S APPROVAL : _____

DCC : _____

✧ Features:

- 5.0mm×5.0mm SMT LED, 1.60mm thickness
- PLCC-6 package
- White package
- Suitable for all SMT assembly and solder process
- Available on tape and reel

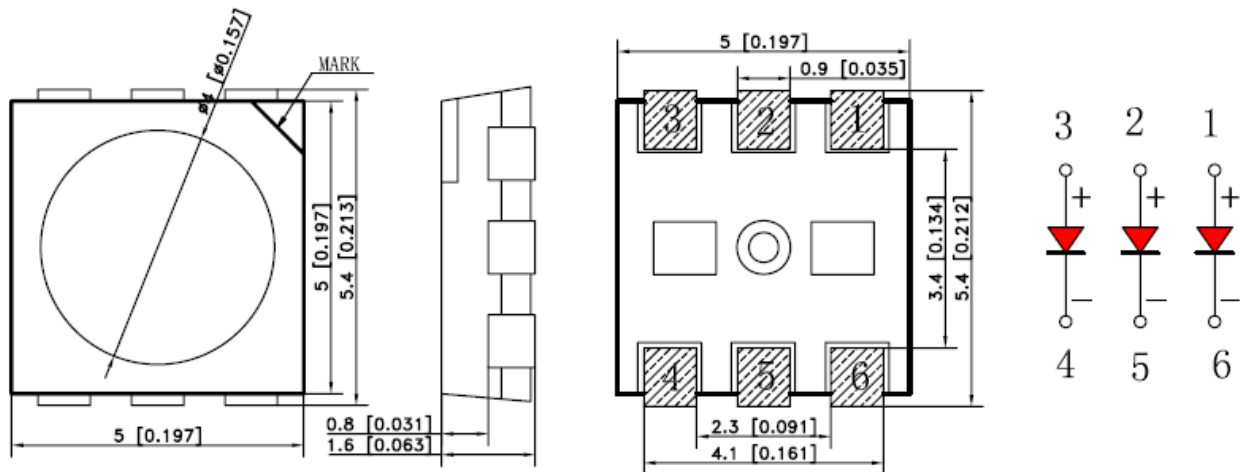
✧ Description

The Red source color devices are made with AlGaInP on sapphire Light Emitting Diode.

✧ Application

- Optical indicator
- Indicator and backlighting in telephone and fax
- Flat backlight for LCD, switch and symbol
- Light pipe application
- General use

✧ Package Dimensions



NOTES:

1. All dimensions are in millimeter[unit];
2. Tolerance is $\pm 0.2\text{mm}$ (0.008 ") especially other specified;
3. Specifications are subject to change without notice.



5050 SMD LED

ESS-5050UR3-TY

REV:A / 0

Part No.	Emitted Color	Len's Color	Chip Material
ESS-5050UR3-TY	Red	Water Clear	AlGaInP

※ Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	150	mW
Pulse Forward Current *	I _{FP}	100	mA
Forward current	I _F	80	mA
Reverse Voltage	V _R	5	V
Soldering Temperature	T _{sol}	260 (for 10 seconds)	°C
Operating Temperature	T _{opr}	-40°C~85°C	-
Storage Temperature	T _{stg}	-40°C~100°C	-
Electrostatic discharge	ESD	2000	V

* 1 I_{FP} condition: pulse of 1/10 duty and 0.1ms width.

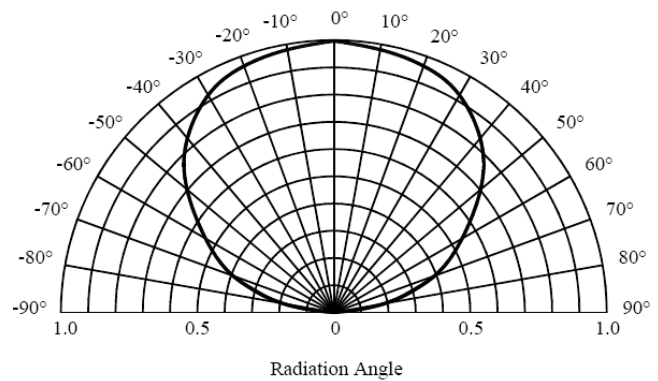
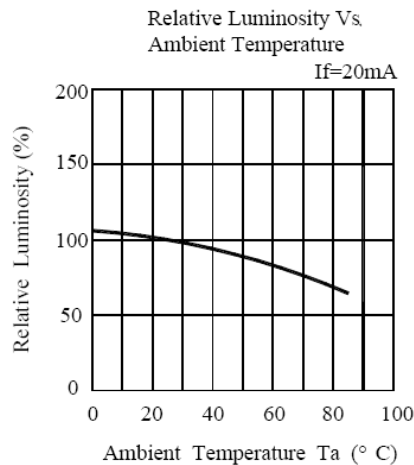
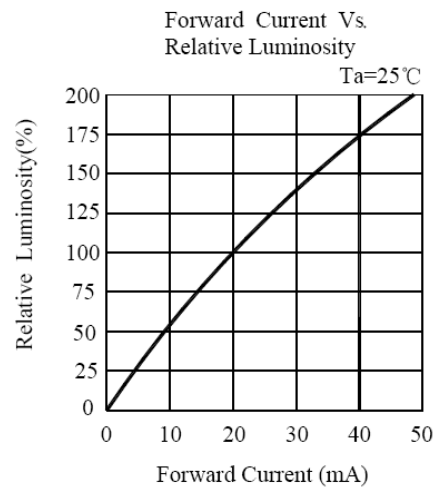
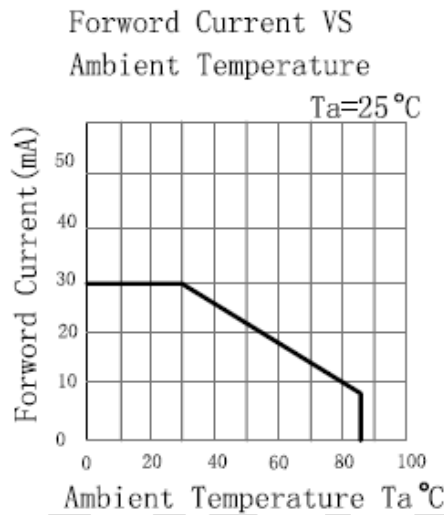
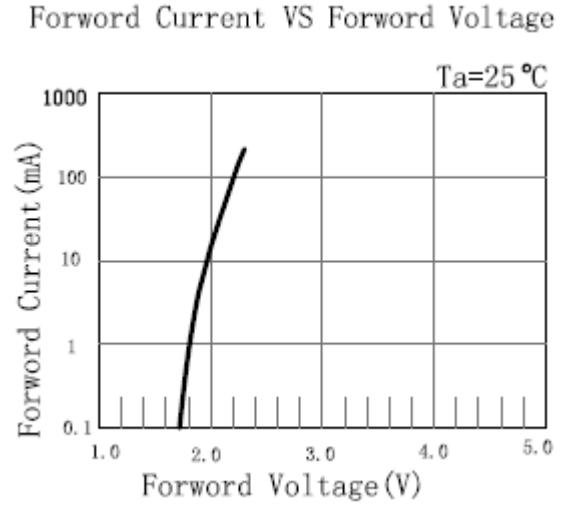
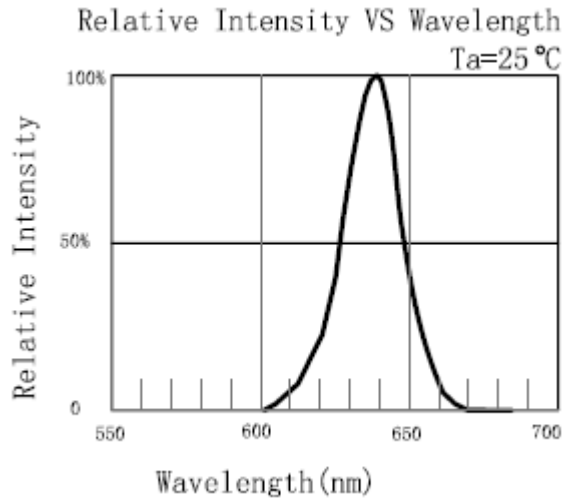
※ Electrical-optical characteristics(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V _f	1.9	2.2	2.4	V	I _F =60mA
Luminous Intensity	I _v	700	850	-	mcd	
Viewing Angle	2θ _{1/2}	-	120	-	deg	
Reverse Current	I _R	-	5	10	μA	V _R =5V
Dominant Wavelength	λ _D	620	625	630	nm	I _F =60mA

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

2. Tolerance of forward voltage is ±0.05V

✧ Typical Electro-Optical Characteristics Curves



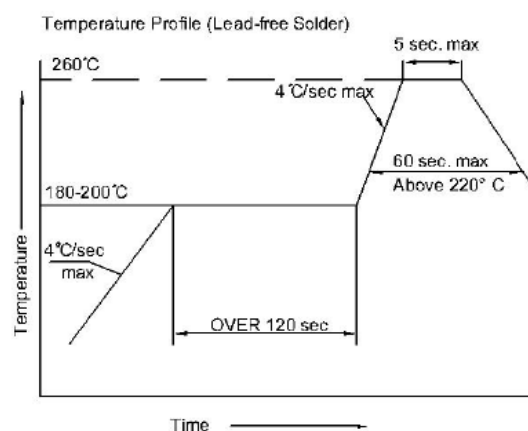
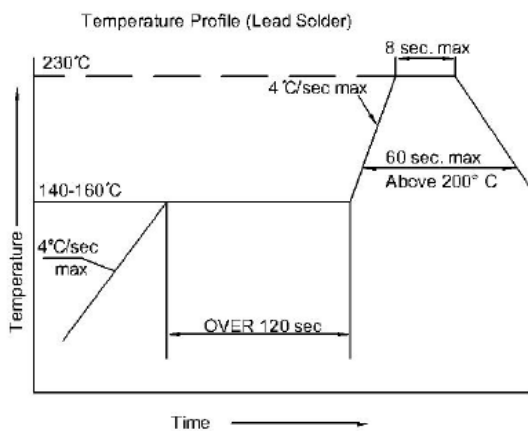
※ Reliability test items and conditions:

NO.	Item	Test Condition	Test Hr/cycle/time	Sample Q'ty	Ac/Re
1	Reflow	TEMP:260±5℃; Min.5Sec	6 min	22pcs	0/1
2	Temperature Cycle	H:+100℃ 15mins To(5mins) L:-40℃ 15mins	300 cycles	22pcs	0/1
3	Thermal Shock	H:+100℃ 15mins To(5mins) L:-40℃ 15mins	300 cycles	22pcs	0/1
4	High Temperature Storage	TEMP: 85℃	1000hrs	22pcs	0/1
5	DC Operating Life	IF=20MA	1000hrs	22pcs	0/1
6	High Humidity	85%R.H.	1000hrs	22pcs	0/1
7	Low Temperature Storage	TEMP:-40℃	1000hrs	22pcs	0/1

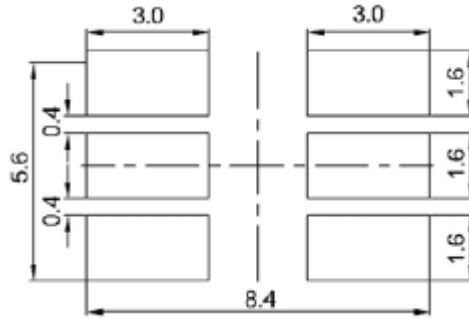
※ SMT Reflow Soldering Instructions

Number of reflow process shall be than 2 times and cooling

Process to normal temperature is required between first and second soldering process



✧ Recommended Soldering Pad Dimensions



✧ Tape Specification: 3,000PCS per reel

