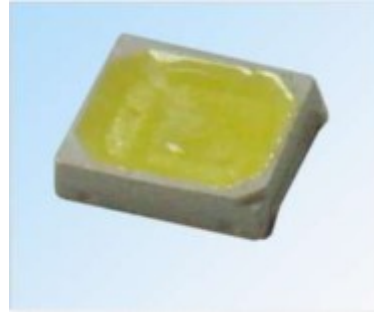


HSH-2835-20K-TZ(ORANGE) DATASHEET



Features

PLCC-2 Package.

Extremely wide viewing angle.

Suitable for all SMT assembly and solder process.

Available on tape and reel.

Moisture sensitivity level: Level

Package:4000pcs/reel

Applications

- Optical indicator
- Indoor display
- Automotive lighting
- Backlight for LCD, switch and Symbol, display
- Tubular light application
- General use

Material

Chip materials	Len type
InGaN	Yellow Diffused

Mass production list

Part No.	CCT(K)		WLD	Φ (lm)		Test Conditions
	Min	mAX		Min	Min	
HSH-2835- 20K-TZ	1200	1500	595-605	35	45	IF=150mA

Electrical / Optical Characteristics at Ta=25° C

Parameter	Symbol	Min.	Typ.	Max.	Units	Test conditions
Forward Voltage	V _F	2.8	--	3.6	V	IF=150mA
Viewing Angle	2 θ 1/2		120		Deg	IF=150mA
Reverse Current	I _R	--	--	10	μ A	VR = 5V

Note:

1. 2 θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. The above luminous flux measurement allowance tolerance is $\pm 10\%$.
3. The above Color Rendering Index measurement allowance tolerance is

± 2

4. The above forward voltage measurement allowance tolerance is $\pm 0.1V$.

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Rating	Units
Forward Current	IF	150	mA
Reverse Voltage	VR	5	V
Peak Forward Current [1]	IFP	200	mA
Electrostatic Discharge (HBM)	ESD	1000	V
Operating Temperature	Topr	-20 ~ +80	$^\circ C$
Storage Temperature	Tstg	-35 ~ +80	$^\circ C$

Note:

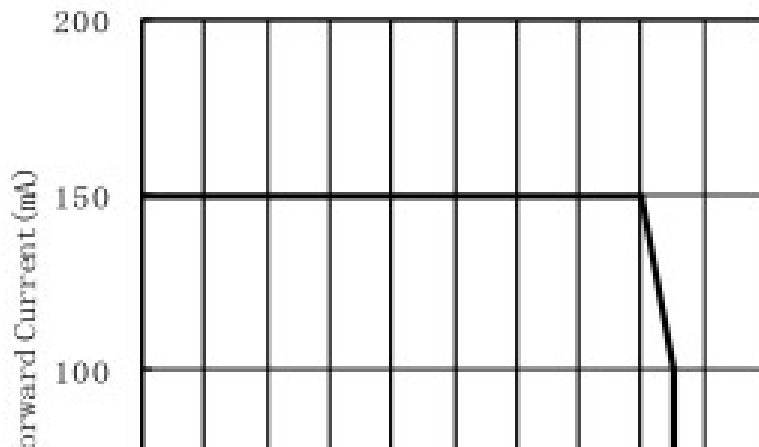
1. 1/10 Duty cycle, 0.1ms pulse width.

Typical optical characteristics curves

Soldering Temperature vs. Forward Current

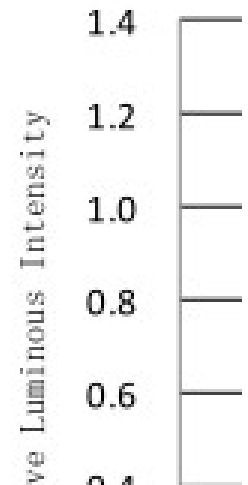
焊接温度与正向电流特性曲线

Junction Temperature < 115°C



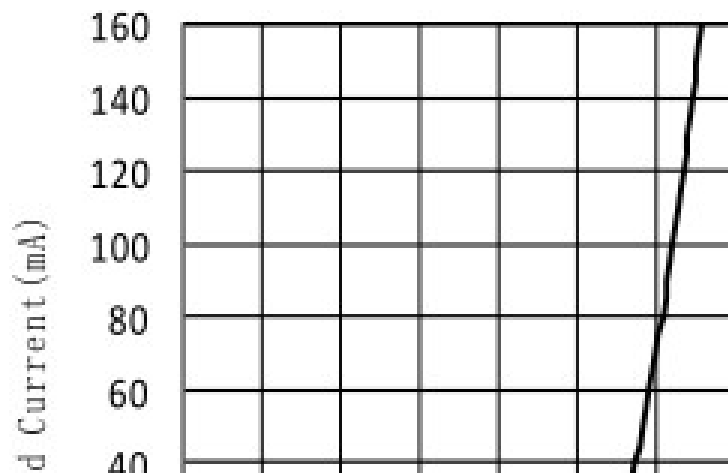
Forward Current vs. Ambient Temperature

正向电流特性曲线



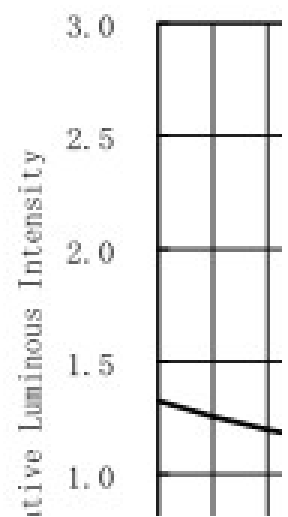
Forward Voltage vs. Forward Current

正向电压与正向电流特性曲线



Ambient Temperature vs. Forward Current

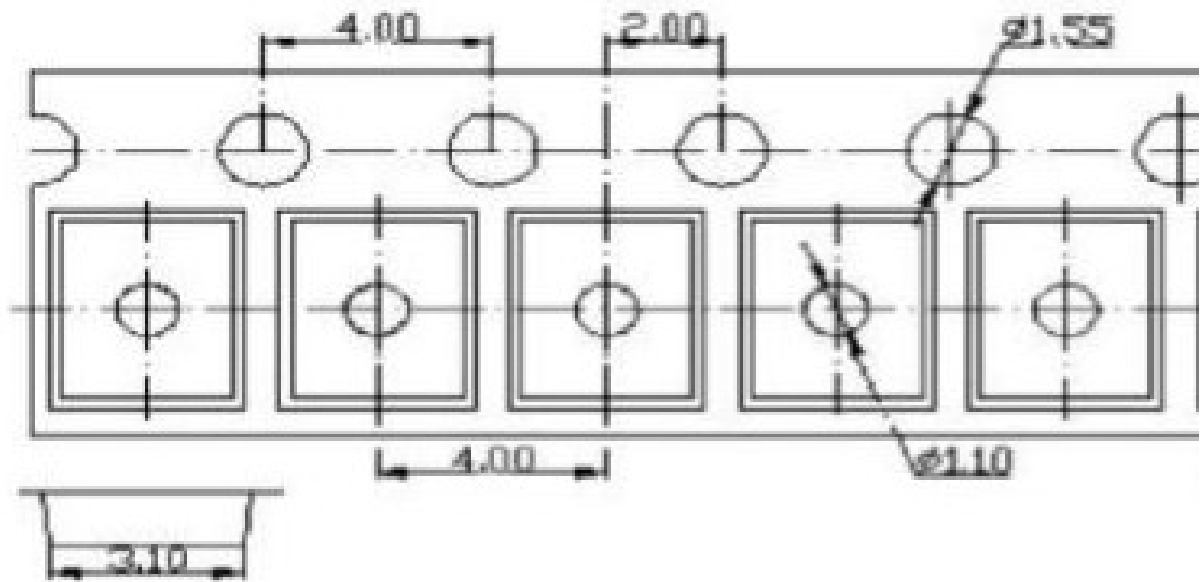
环境温度特性曲线



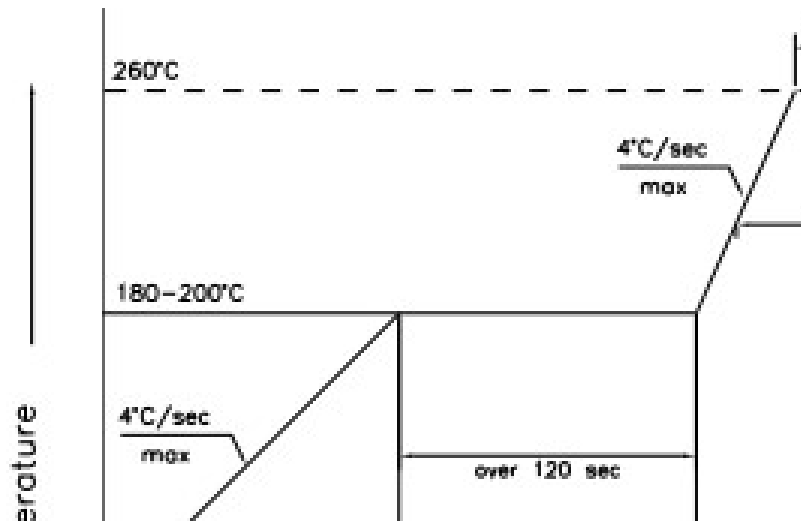
Reliability Test Items And Conditions

Test Items	Test Condition	Time	Quantity	Ac/Re
Reflow	Temp:260°C max T=10 sec	3 times.	22Pcs.	0/1
Temperature Cycle	100°C ± 5°C 30 min. ↑ ↓ 5 min -40°C ± 5°C 30 min.	100 Cycles	22Pcs.	0/1
High Temperature Storage	Temp:100°C ± 5°C	1000Hrs.	22Pcs.	0/1
Low Temperature Storage	Temp:-40°C ± 5°C	1000Hrs.	22Pcs.	0/1
Life Test	Ta=25°C ± 5°C IF=150mA	1000Hrs.	22Pcs.	0/1
High Temperature High Humidity Life Test	85°C ± 5°C / 85%RH IF=100mA	1000Hrs.	22Pcs.	0/1

Tape Specifications (Units : mm)



SMT Reflow Soldering Instructions SMT



1. Reflow soldering should not be done more than two times.
2. When soldering, do not put stress on the LEDs during heating

Soldering iron

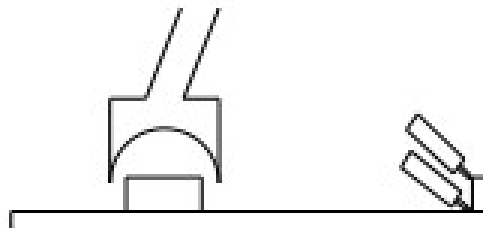
1. When hand soldering, keep the temperature of iron below less 300°C less than 3 seconds
2. The hand solder should be done only one times

Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should

be confirmed in advance

whether the characteristics of LEDs will or will not be damaged by repairing.



Cautions

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs.

Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.