3528

Approve Sheet

/Product	LED
/Part Number	IE-3528Y-HB-C04-Y
/Issue Date	
/customer specification	
/Customer	
（ lm ） /(mcd)	600-800mcd/588-594nm
/VF(V)	2.0-2.4V
/Color Bin	
/CRI	
/SDCM	
备注 /remarks	

/Maker		
/Prepared	/Checked	/Customer Comfirmation

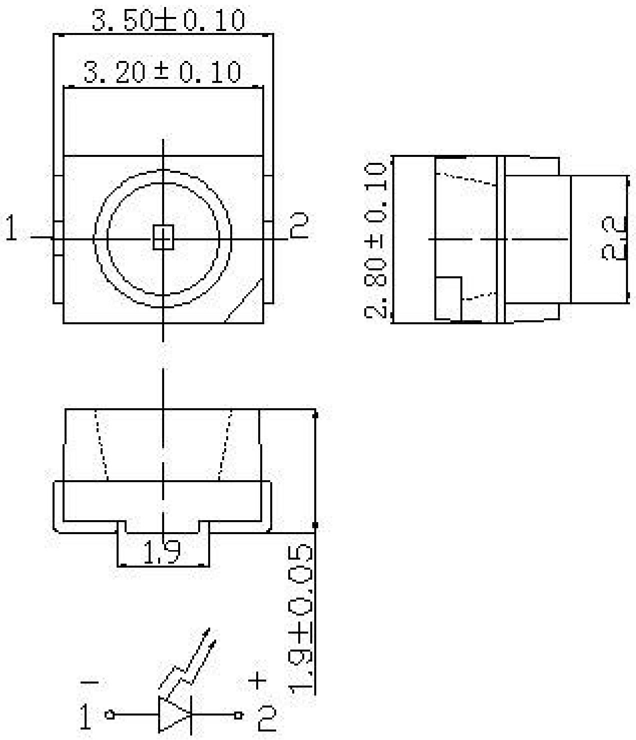
(Feature)

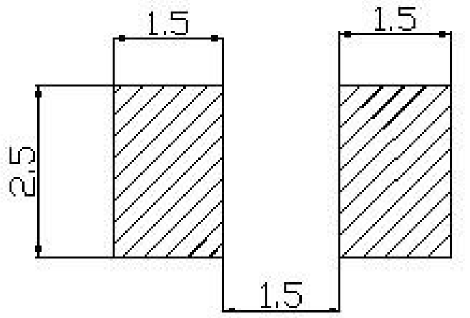
- Size (mm):3.5*2.8mm
- 0.1W Low Power LED
- Suitable for all SMT assembly
  And solder process.
- Moisture sensitivity level: Level 5a.

(Applications)

- Interior Decoration Lighting

Product Structure diagram.





Notes:

All dimension units are millimeters.

Material Description

Part No.	Chip Materials	Lens Type
IE-3528Y-HB-C04-Y	InGaN / AlGaInP	Transparent colloid

Absolute Maximum Ratings at TA=25℃

Parameter	Symbol	Rating	Units
（Power Dissipation）	Pd	60	mw
(Continuous Forward Current)	IF	20	mA
Pulsed Forward Current (1/10Duty Cycle, 0.1ms Pulsewidth）	IFP	50	mA
（Reverse Voltage）	VR	5	V
（Electrostatic Discharge） (HBM)	ESD	1000	V
（Operating Temperature）	Topr	-30 to +80	℃
（Storage Temperature）	Tstg	-30 to +85	℃
(Junction Temperature)	Tj	≤125	℃

（Note）:

1/10 Duty cycle, 0.1ms pulse width.

Electrical / Optical Characteristics at TA=25℃

Parameter	Symbol		Min	Typ	Max	Unit	Test Condition
Luminous Intensity	IV	Y	600	--	800	mcd	IF=20mA
Viewing Angle	2θ1/2			120		deg	Note 1
Dominant Wavelength	λd	Y	588	--	590	nm	IF=20mA
			590	--	592		
			592	--	594		
Forward Voltage （R）	VF	Y	2.0	--	2.4	V	IF=20mA
ReverseCurrent	IR		--	--	10	μA	VR=5V

Note:

1. 1/2 is the angle from optical centerline where the luminous intensity is ½ the optical centerline value

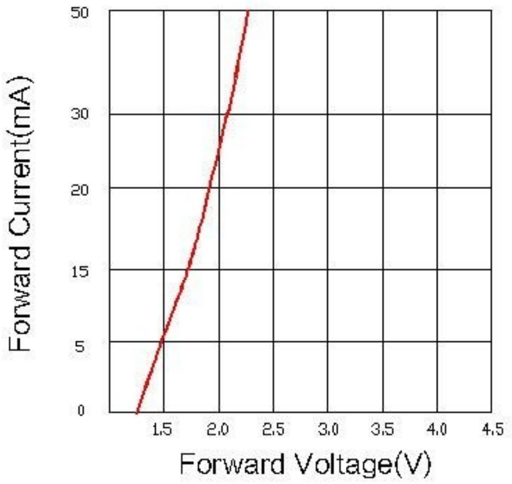
2. The above luminous flux measurement allowance tolerance is ±15%.

3. The above Color Rendering Index measurement allowance tolerance is ±2

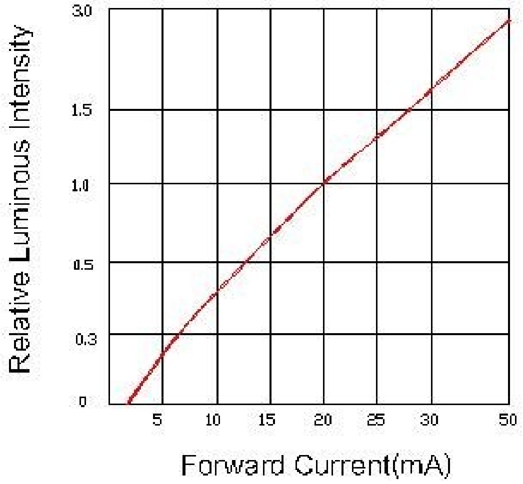
4.The above forward voltage measurement allowance tolerance is ±0.1V

Typical optical characteristics curves

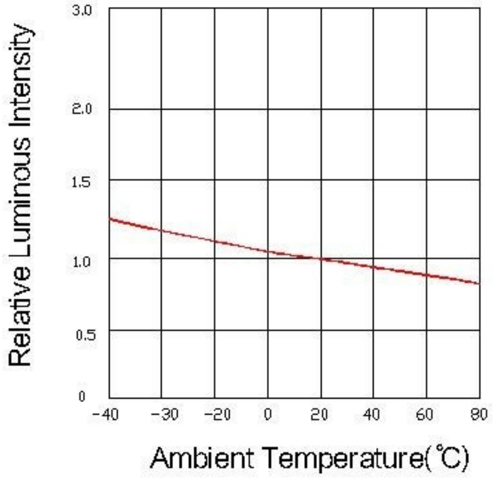
Forward Voltage VS.Forward Current
正向电压与正向电流特性曲线



Forward Current VS.Relative Intensity
正向电流与相对光强特性曲线

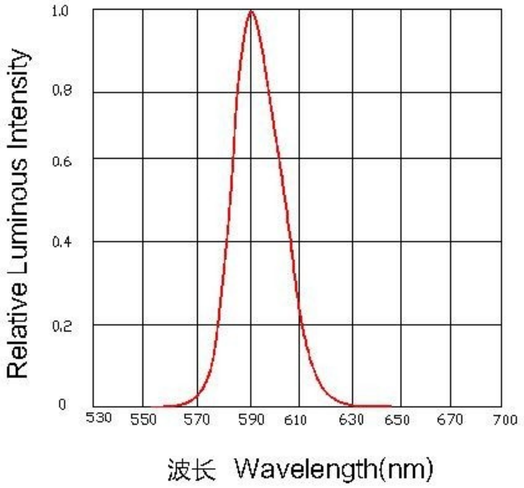


Ambient Temperature VS.Relative Intensity
环境温度与相对光强特性曲线

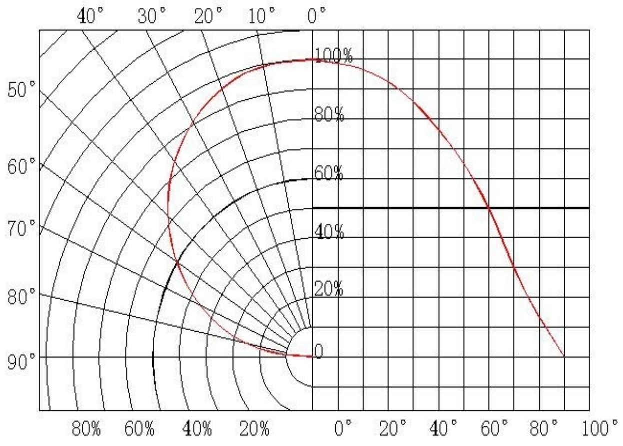


Soldering Temperature VS.Forward Current
焊盘温度与正向电流特性曲线

Relative Spectral emission
相对光谱分布特性曲线



Radiation diagram
辐射角度图



Reliability Test Items And Conditions

Test Items	Ref. Standard	Test Condition	Time	Quantity	Ac/Re
Reflow	IEC/TR 60068-3-12-2014	Temp:260℃ max T=8 sec	3 times	22PCS	0/1
Temperature Cycle	IEC60068-2-14 : 2009	80℃±5℃ 15min ↑↓5 min -30℃±5℃ 15min	100Cycles	22PCS	0/1
High Humidity Heat Life Test	IEC60068-2-78: 2001	Ta=85℃ RH=85% IF=20mA	500H	22PCS	0/1
High Temperature Storage	Tested with yuliang standard	Temp:85℃±5℃	1000H	22PCS	0/1
Low Temperature Storage	IEC60068-2-1: 2007	Temp:-30℃±5℃	1000H	22PCS	0/1
Life Test	Tested with yuliang standard	Ta=25℃±5℃ IF=20mA	1000H	22PCS	0/1

Failure Criteria

Test Items	Symbol	Test Condition	Failure Criteria	
			(MIN)	（ MAX ）
	VF	IF=20mA	--	U.S.L*)x1.1
	IR	VR = 5V	--	10uA
	Im	IF=20mA	L.S.L*)x0.7	

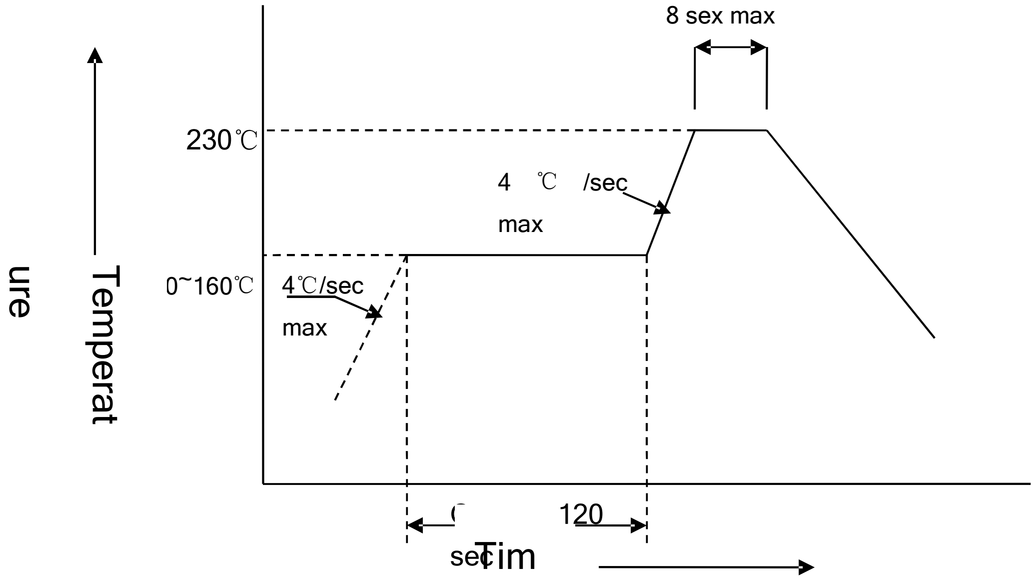
U. S.L: Upper Specification Limit L.S.L: Lower Specification Limit

SMT Reflow Soldering Instructions SMT

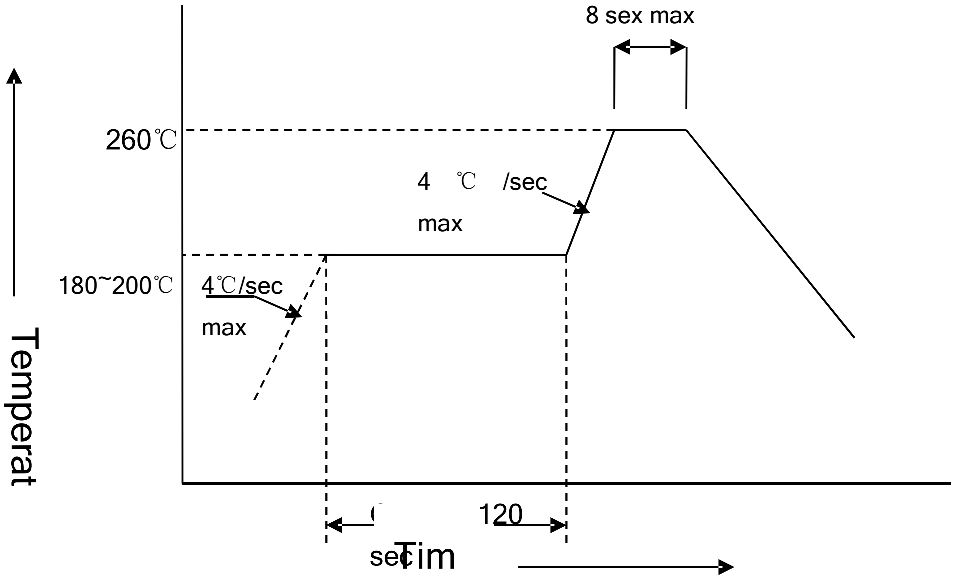
Reflow Soldering Instructions

Number of reflow process shall be less than 1 times

Lead Solder



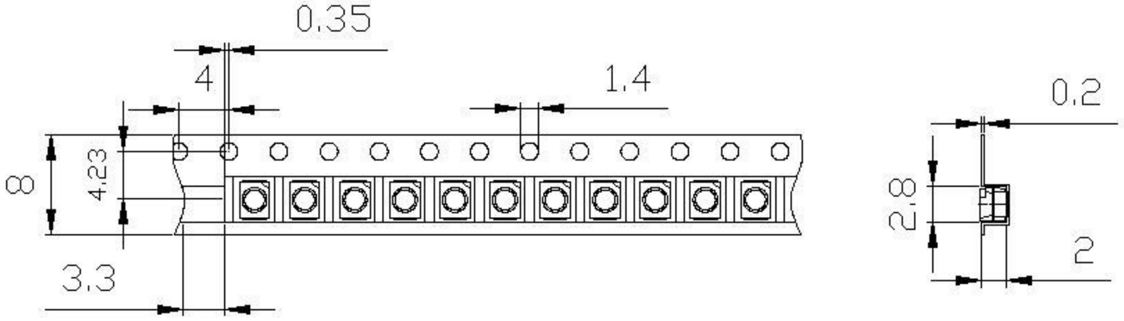
Lead-Free Solder



Packing

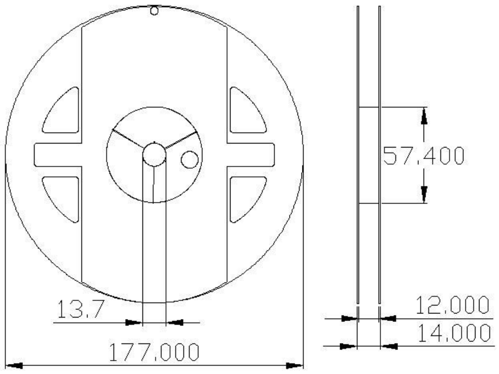
Tape Specifications (Units : mm)

Packing unit 2004PCS/reel

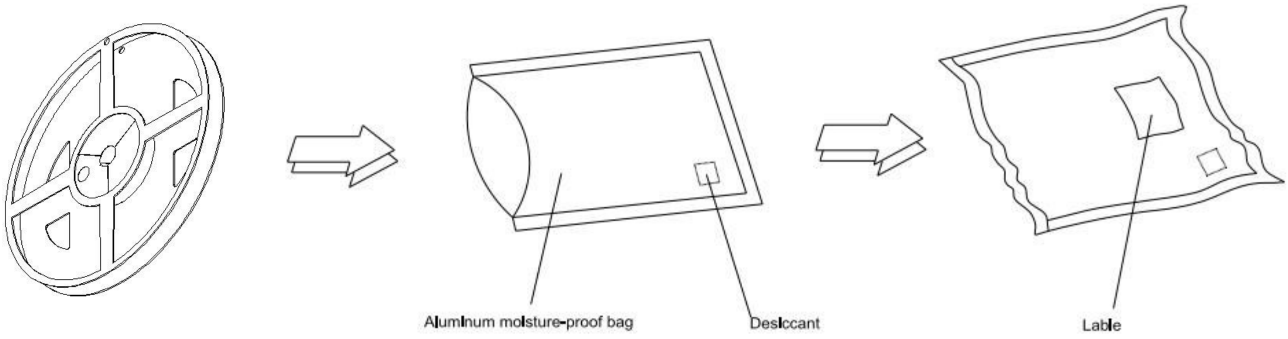


Adhesion Strength of Cover Tape : Adhesion strength to be 0.1 –0.7N when the cover tape is turned off fromthe carrier at 10°angle to be the carrier tape.

Reel Dimensions



Moisture Resistant Packaging



SMD LED