



TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
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http://www.toyo-led.com E-mail : sales@toyo-led.com



P/N: TY-3528PW3

3.5 * 2.8mm SMD Series

◆ Features:

- 3.5mm×2.8mm SMT LED, 1.90mm thickness
- PLCC-4 package
- White package
- Suitable for all SMT assembly and solder process
- Available on tape and reel



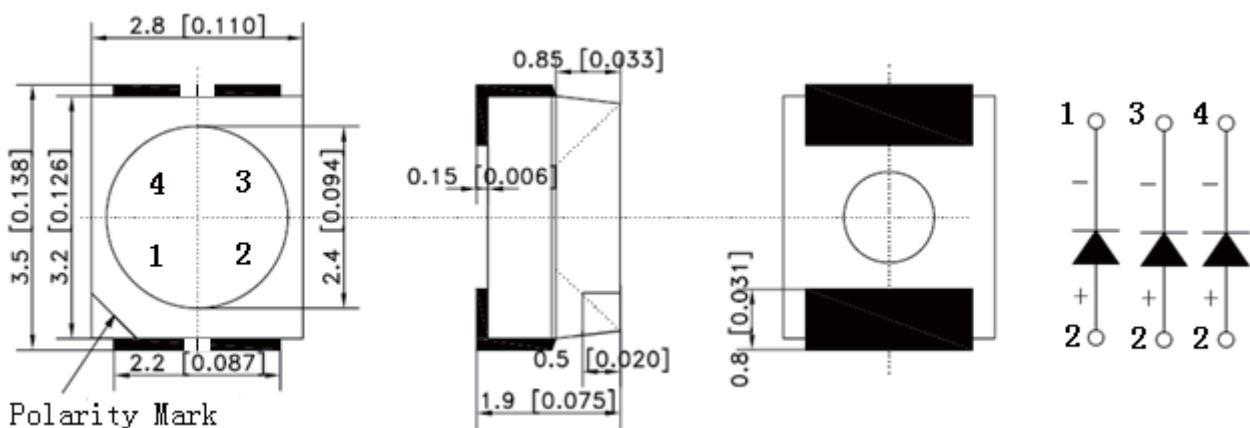
◆ Description

The White source color devices are made with InGaN 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±0.2mm(0.008 ") especially other specified;
3. Specifications are subject to change without notice.



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Part No.	Emitted Color	Len's Color	Chip Material
TY-3528PW3	Pure White	Yellow	InGaN

✧ Absolute Maximum Ratings(Ta=25°C)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	330	mW
Continuous Forward Current	I _{Fmax}	90	mA
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _{opr}	-40 to+85	25°C
Storage Temperature Range	T _{stg}	-40 to+85	25°C

✧ Electrical/Optical Characteristics(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max	Unit
Forward Voltage	V _F	I _F =60mA	3.0	3.2	3.5	V
Luminous Intensity	I _V	I _F =60mA	--	5200	--	mcd
Luminous Flux	Φ	I _F =60mA	18	20	--	lm
Typical Correlated Color Temperature	T _c	I _F =60mA	5000	--	6000	K
Chromaticity Coordinates	X	I _F =60mA	--	0.33	--	--
	Y	I _F =60mA	--	0.33	--	--
Viewing Angle	2θ _{1/2}	I _F =60mA	--	120	--	Deg
Capacitance	C	V _F =0V, f=1MHZ	--	100	--	pF
Reverse Current	I _R	V _R =5V	--	5	10	uA



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◇ Typical Electro-Optical Characteristics Curves

FIG. 1 Relative Intensity Vs. Wavelength

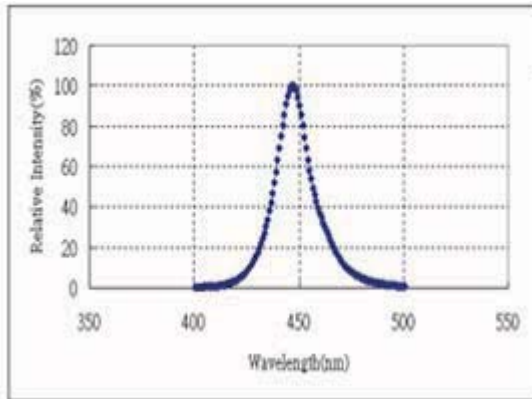


FIG. 2 Forward Current Vs. Forward Voltage

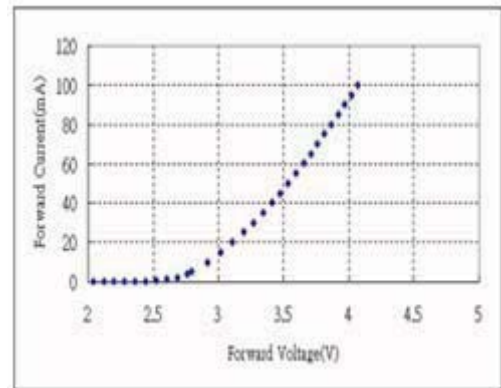
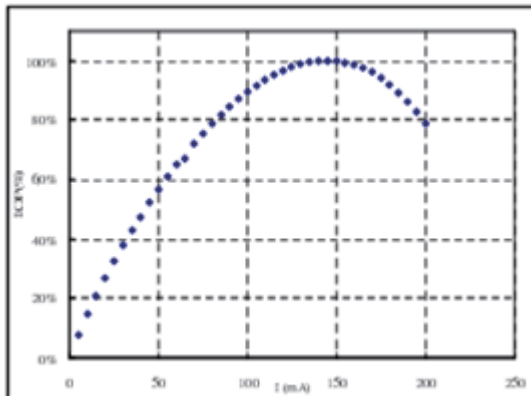


FIG. 3 Relative Intensity Vs. Forward Current





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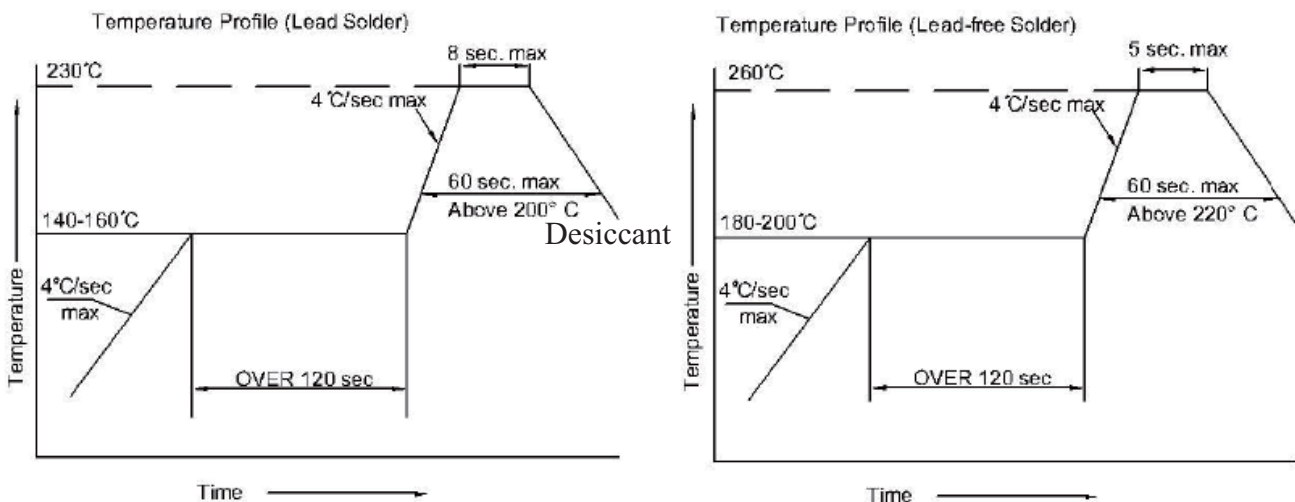
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◇ Reliability Test Items And Conditions

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

◇ SMT Reflow Soldering Instructions





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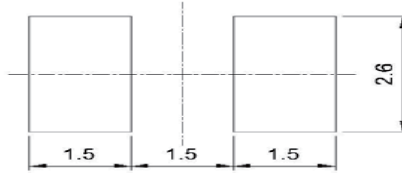
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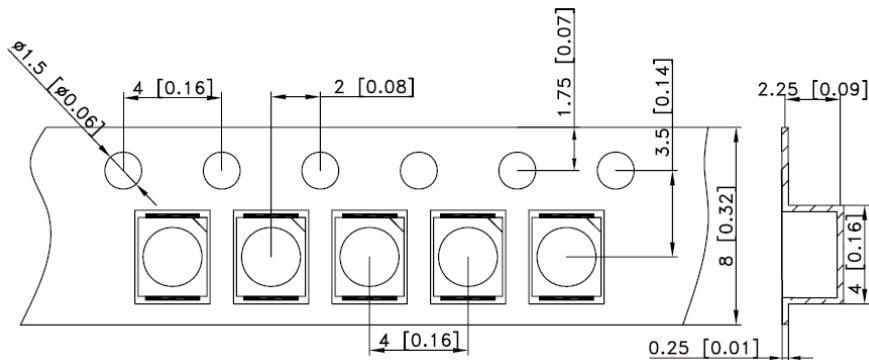
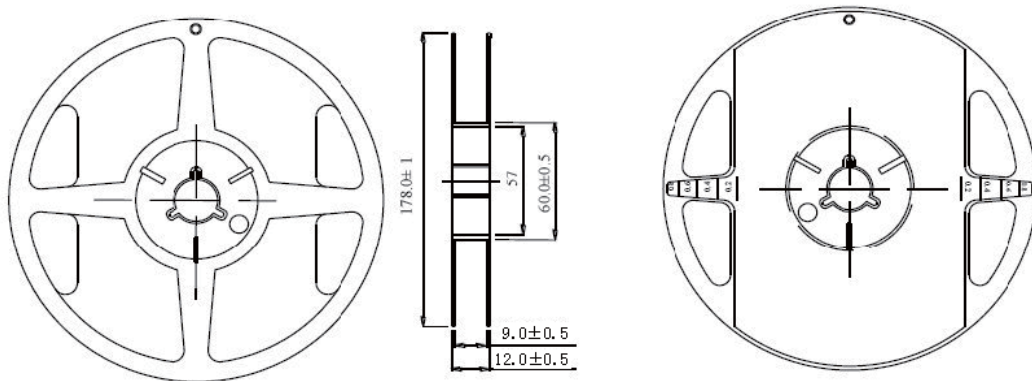
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Recommended Soldering Pad Dimensions



Tape Specification: 2,000PCS per reel



Package Label

SMD LED	
PART NO: _____	QA Pass
LOT NO : _____	
Q' TY : _____	
VF : _____ IV : _____	
TC : _____ BIN: _____	Pb
DATE : _____	
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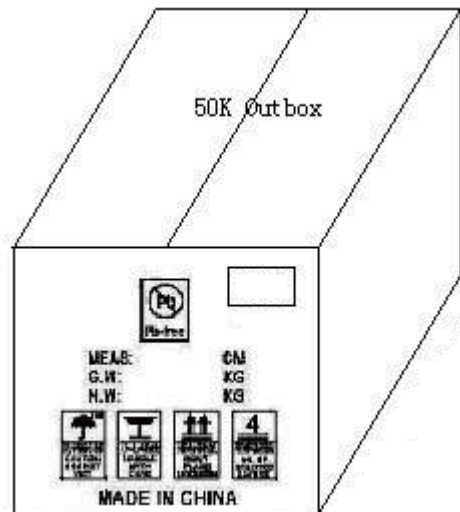
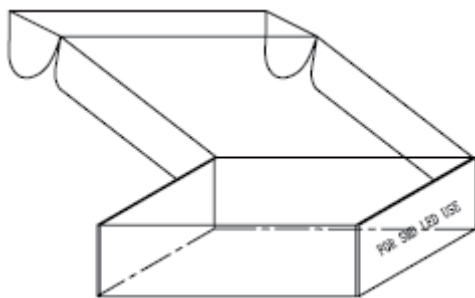
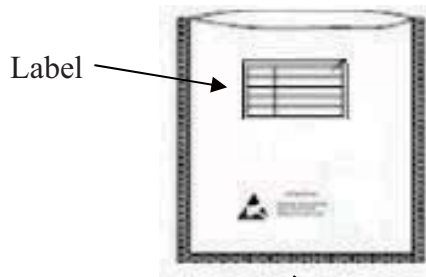
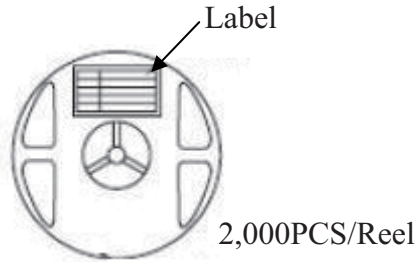
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Package & Shipping Instructions



5 Inter boxes/Outer Box (50KPCS)
Size: 350*260*230(mm)