

## 1206 Reverse Package Super Yellow LED

### Features

- Package in 8mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with infrared and vapor phase reflow solder process
- Mono-color type
- RoHS



**M3216**



### Descriptions

- The SMD series enable smaller board size, higher packing density, reduced storage space, and finally small equipment to be obtained.
- Besides, light weight makes them ideal for miniature applications, etc.

### Applications

- Automotive: backlighting in dashboards and switches.
- Telecommunication: Indicator and backlighting in the telephone and fax.
- Flat backlight for LCD, switch and symbol.
- General use.

### Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
TSP3-XF3216A3	AllnGaP	Super Yellow	Water Clear

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## TSP3-XF3216A3

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

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	IFP	60	mA
Power Dissipation	Pd	60	mW
Electrostatic Discharge	ESD	2000	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	Reflow Soldering: 260 °C for 10 seconds Hand soldering: 350 °C for 3 seconds	

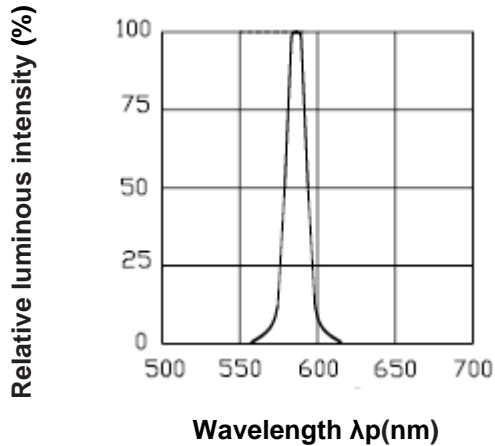
### Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	<b>I<sub>v</sub></b>	38	59	-----	mcd	IF=20mA
Viewing Angle	<b>2θ<sub>1/2</sub></b>	-----	130	-----	deg	
Peak Wavelength	<b>λ<sub>p</sub></b>	-----	591	-----	nm	
Dominant Wavelength	<b>λ<sub>d</sub></b>	-----	589	-----	nm	
Spectrum Radiation Bandwidth	<b>Δλ</b>	-----	15	-----	nm	
Forward Voltage	<b>V<sub>F</sub></b>	1.7	2.0	2.4	V	
Reverse Current	<b>I<sub>R</sub></b>	-----	-----	10	uA	VR=5V

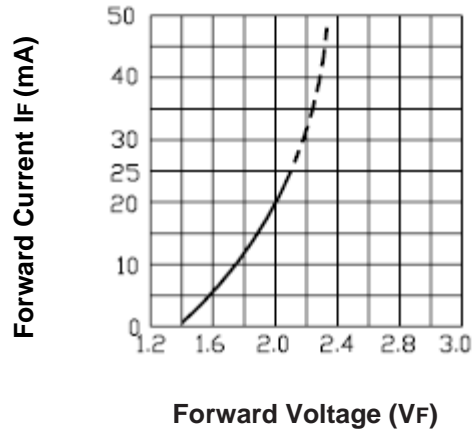
**Notes:** Tolerance of Luminous Intensity: ±10%  
 Tolerance of Dominant wavelength: ±1.0nm  
 Tolerance of Forward Voltage: ±0.1V

### Typical Electro-Optical Characteristics Curves (Ta=25°C)

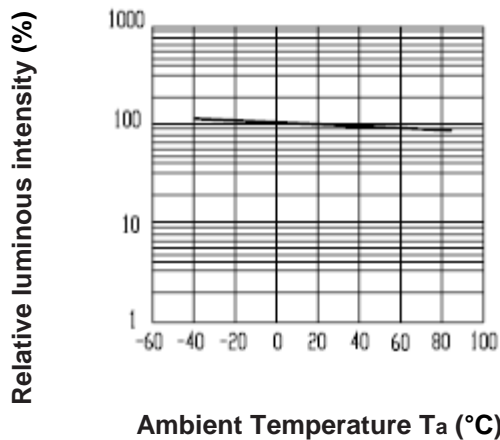
Spectrum Distribution



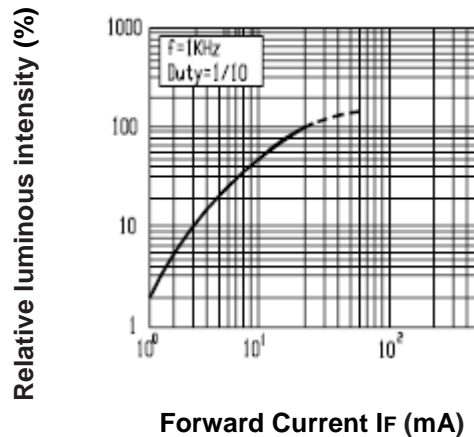
Forward Current vs. Forward Voltage



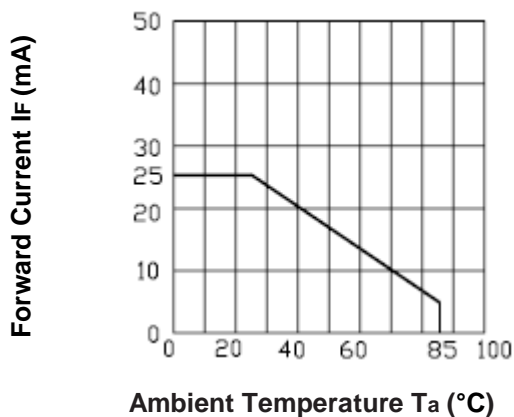
Luminous Intensity vs. Ambient Temperature



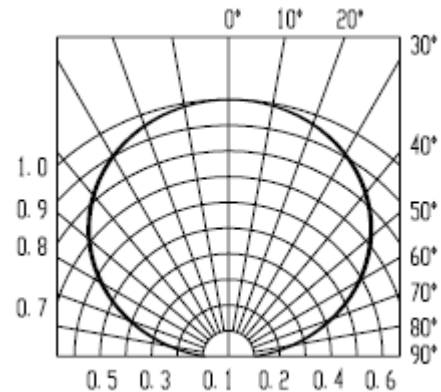
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



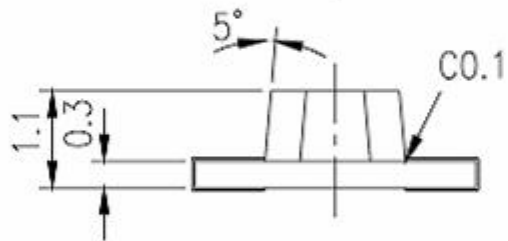
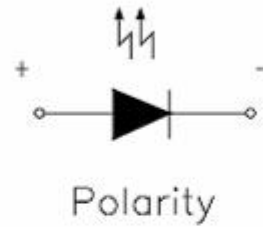
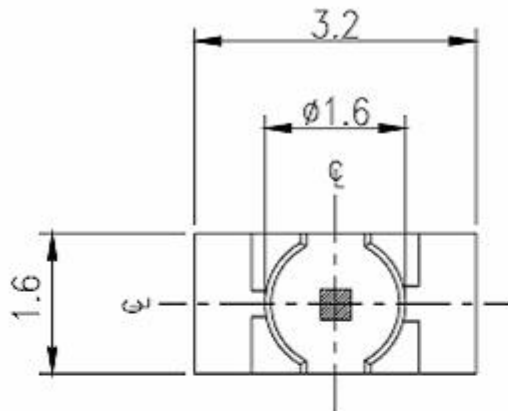
Radiation Diagram



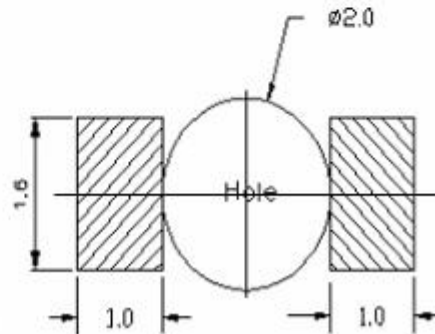
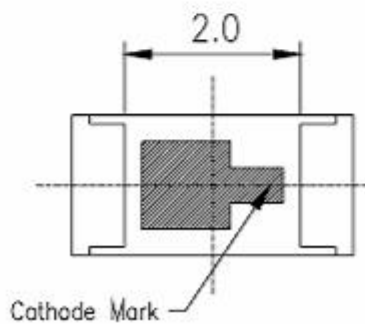
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## TSP3-XF3216A3

### Package Outline Dimensions (Unit=mm)



For Reflow Soldering (Proposal)

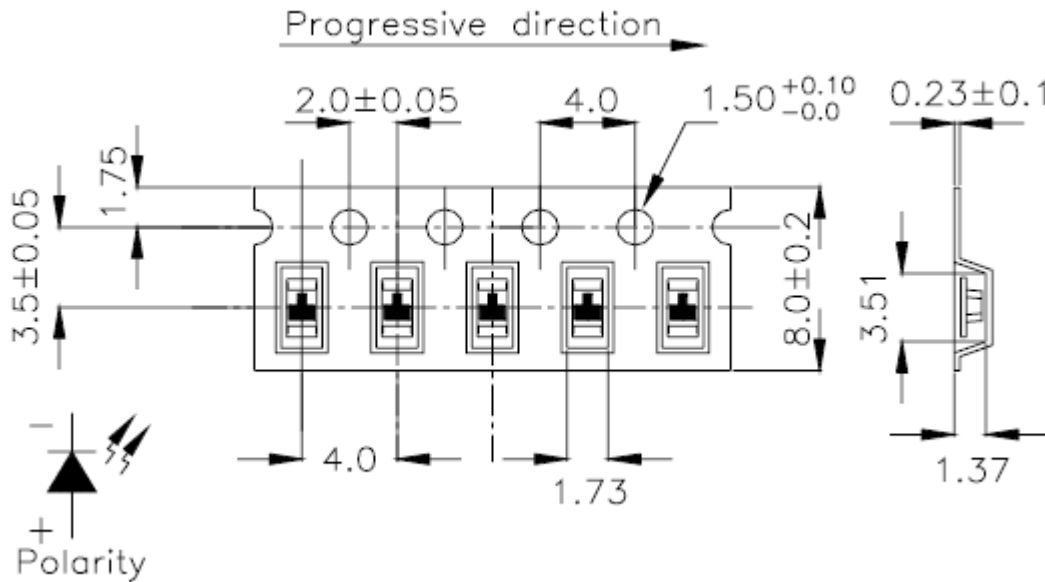


**Note:** The tolerances unless mentioned is  $\pm 0.1\text{mm}$ , Angle is  $\pm 0.5^\circ$ , Unit = mm

# 1206 Reverse Package Super Yellow LED

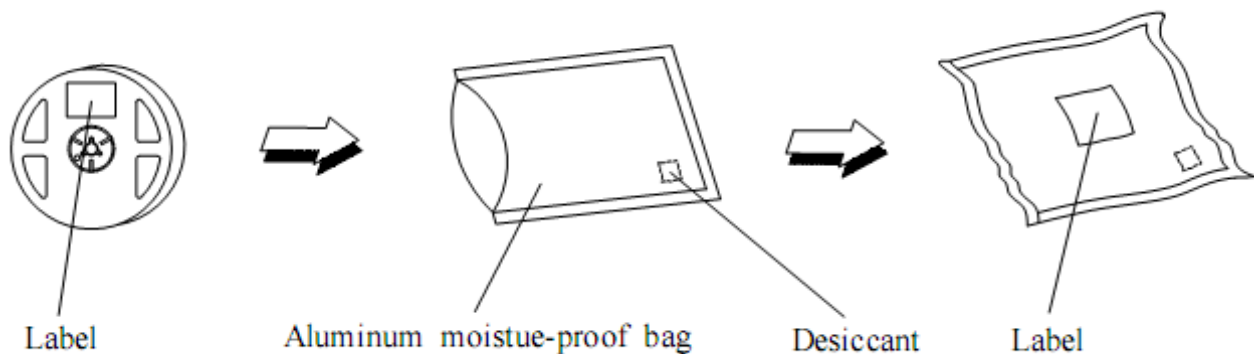
## TSP3-XF3216A3

Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm, Angle is  $\pm 0.5^\circ$ , Unit = mm

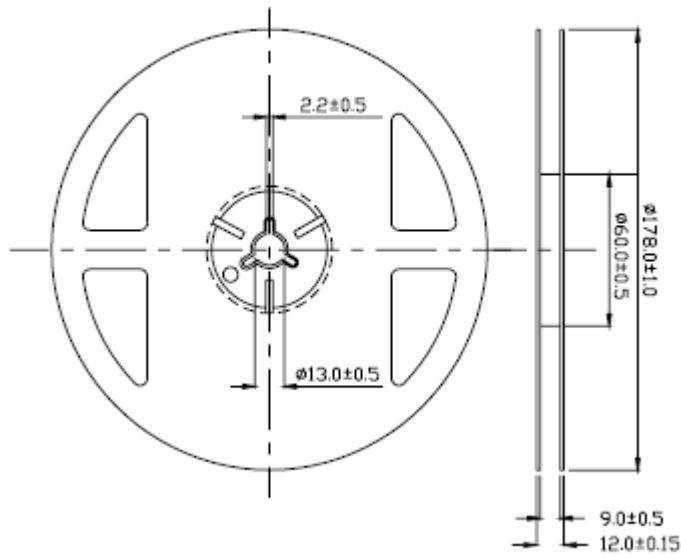
### Moisture Resistant Packaging



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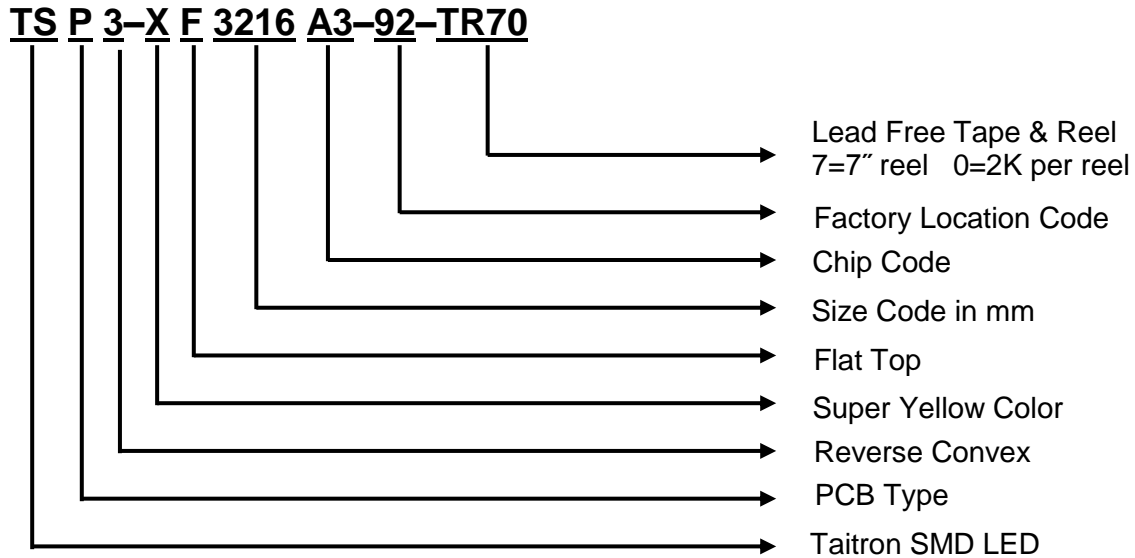
## TSP3-XF3216A3

Reel Dimensions (Unit=mm):



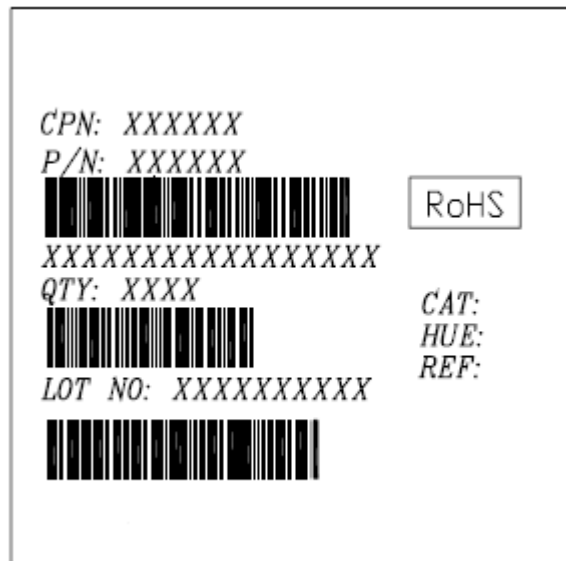
**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm.

### Ordering Information



### Label Explanation

- CAT:** Luminous Intensity Rank
- HUE:** Dominant Wavelength Rank
- REF:** Forward Voltage Rank





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