

## Top View with Super Yellow LED

### Features

- PLCC-2 compatible package.
- Compatible with automatic placement equipment.
- Class 1 ESD sensitive.
- RoHS



**M3227**



### Applications

- Automotive interior lighting
- Indoor and outdoor displays
- Backlighting (LCD, displays, switches, office equipment)
- Indicator
- General use

### Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
TSRJ-XT3227-9ZDG	AlInGaP	Super Yellow	Water Clear

# Top View with Super Yellow LED

## TSRJ-XT3227-9ZDG

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

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Average Forward Current (Note 1&3)	IF	30	mA
Peak Forward Current (Note 2)	IFP	100	mA
Power Dissipation	PD	82.5	mW
Operating Temperature (Note 3)	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Junction Temperature	Tj	125	°C
Soldering Temperature	Tsol	260°C/ 5 seconds	

**Notes:** 1. Design of heat dissipation should be considered

2. Duty ratio= 1/10, pulse width=0.1ms

3. The allowable operating current at different operation temperature, please take reference from Fig. 5 on page 4.

# Top View with Super Yellow LED

## TSRJ-XT3227-9ZDG

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	224	355	560	mcd	IF=20mA
Dominant Wavelength	$\lambda_d$	585	589	594	nm	
Spectrum Radiation Bandwidth	$\Delta\lambda$	-----	25	-----	nm	
Viewing Angle	2 $\theta$ 1/2	-----	120	-----	deg	
Forward Voltage	VF	1.85	2.00	2.45	V	
Reverse Current	IR	-----	-----	10	$\mu$ A	VR=5V

**Notes:** Tolerance of Luminous Intensity:  $\pm 15\%$

Tolerance of Dominant wavelength:  $\pm 1.0\text{nm}$

Tolerance of Forward Voltage:  $\pm 0.1\text{V}$

# Top View with Super Yellow LED

## TSRJ-XT3227-9ZDG

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

Fig.1 Spectrum Distribution

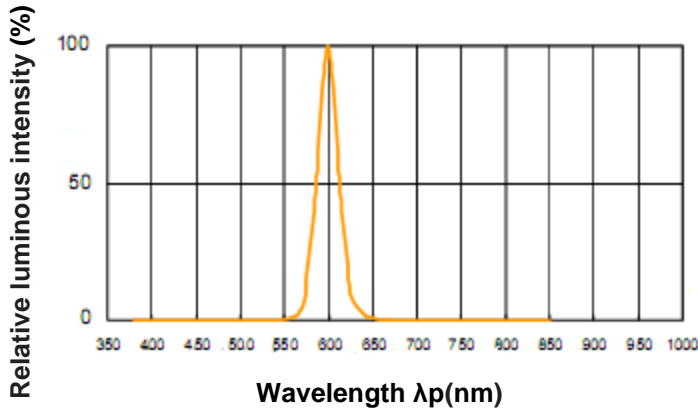


Fig.2 Forward Current vs. Forward Voltage

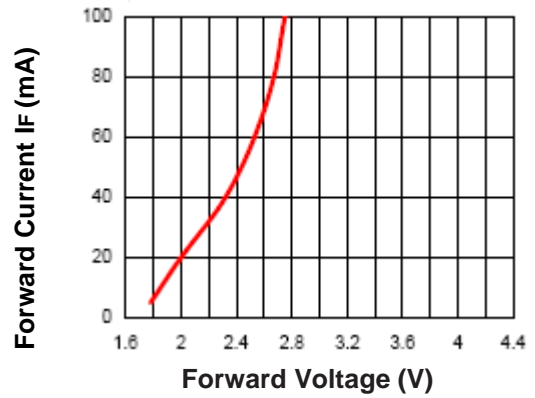


Fig.3 Luminous Intensity  $I_F=20\text{mA}$  vs. Ambient Temperature

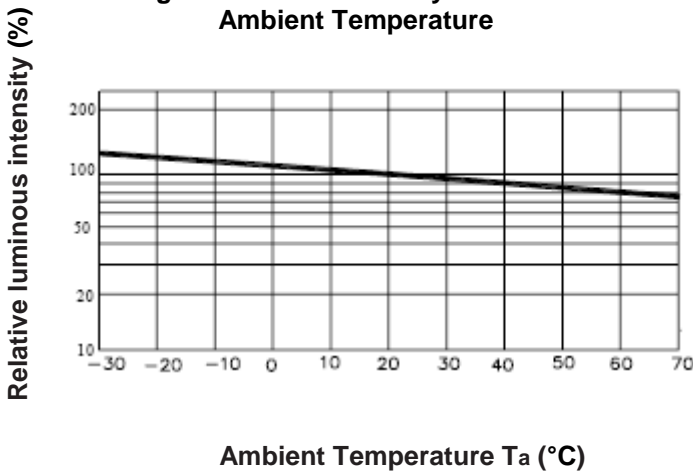


Fig.4 Luminous Intensity vs. Forward Current

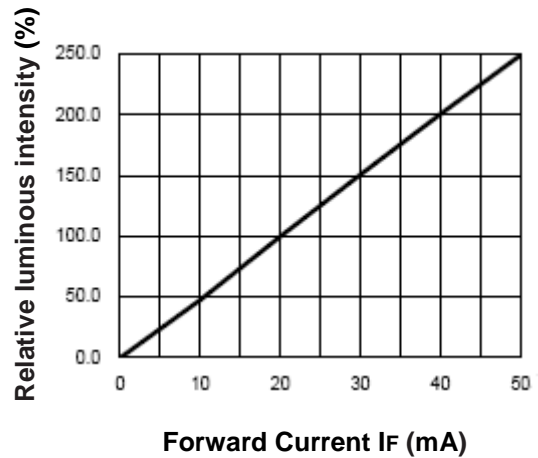


Fig.5 Forward Current Derating Curve

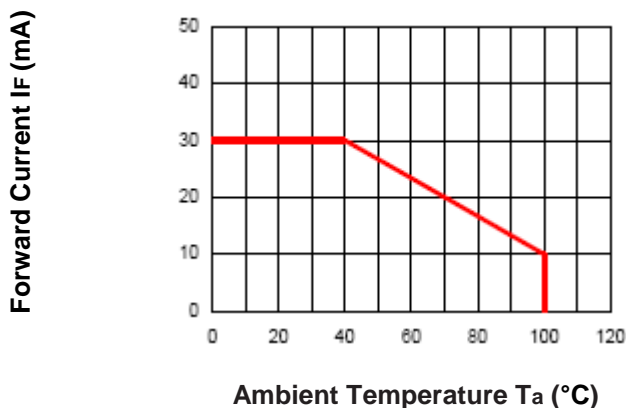
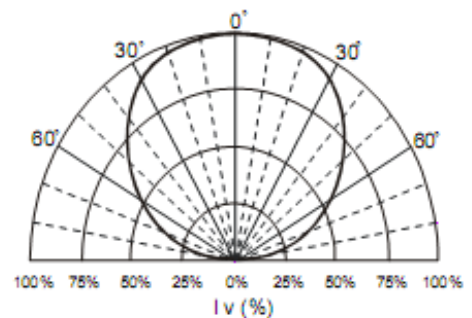


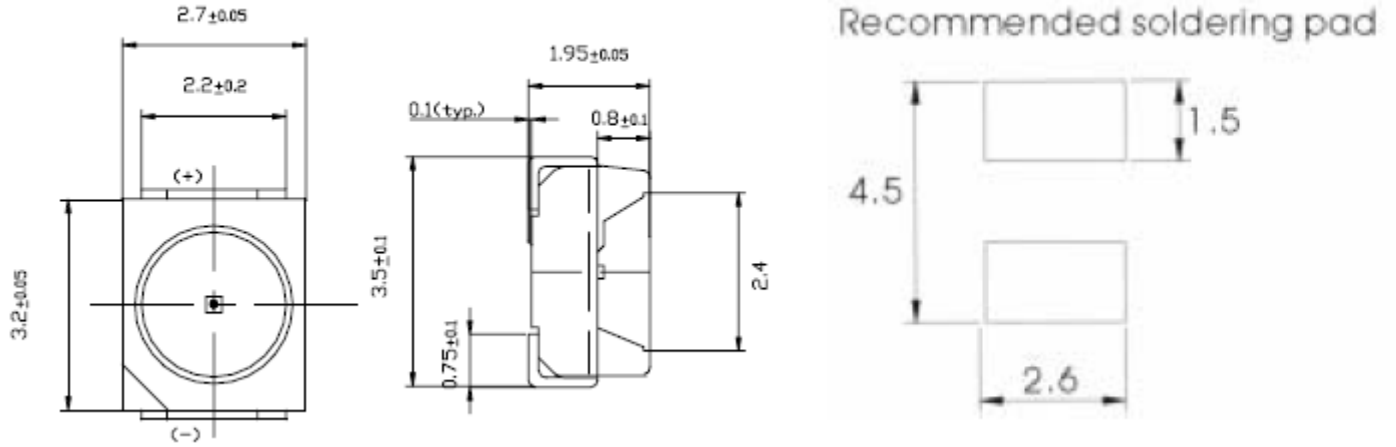
Fig.6 Radiation Diagram



# Top View with Super Yellow LED

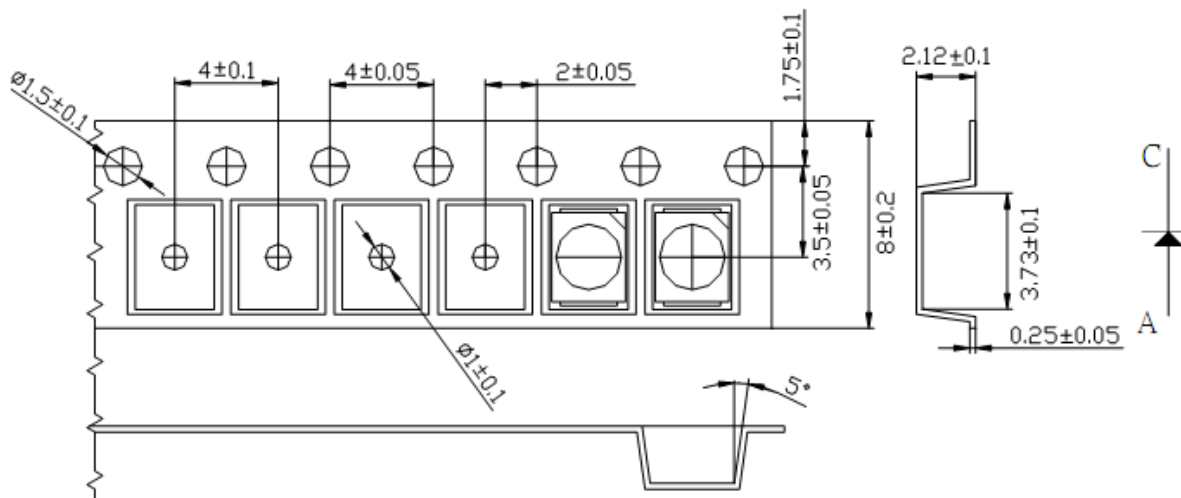
## TSRJ-XT3227-9ZDG

### Package Outline Dimensions (Unit=mm)

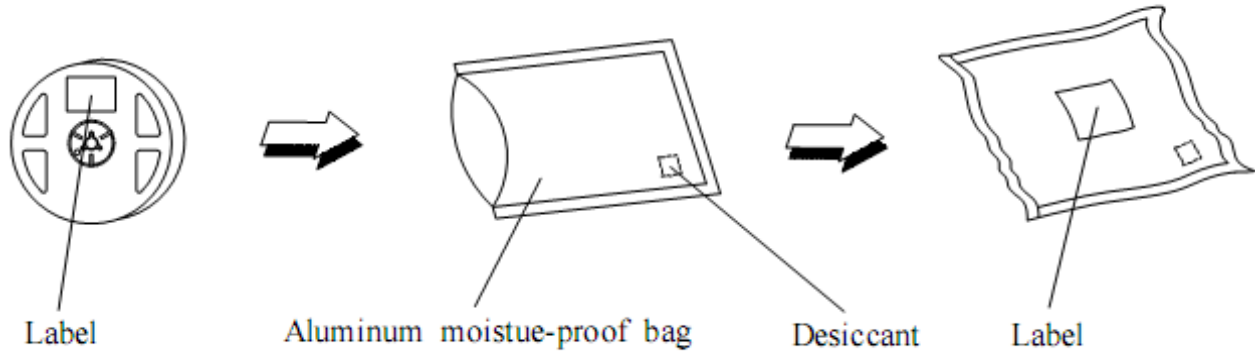


**Note:** The tolerances unless mentioned is  $\pm 0.2$ mm.

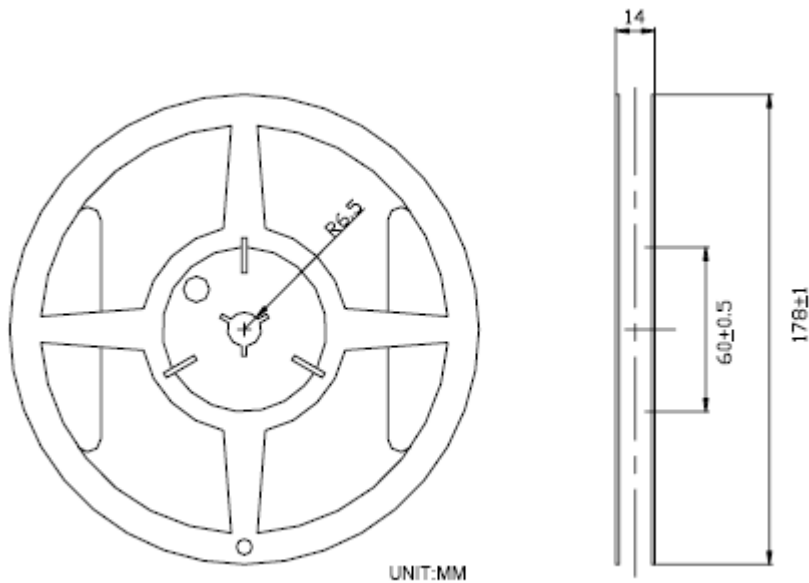
### Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



### Moisture Resistant Packaging



### Reel Dimensions (Unit=mm):

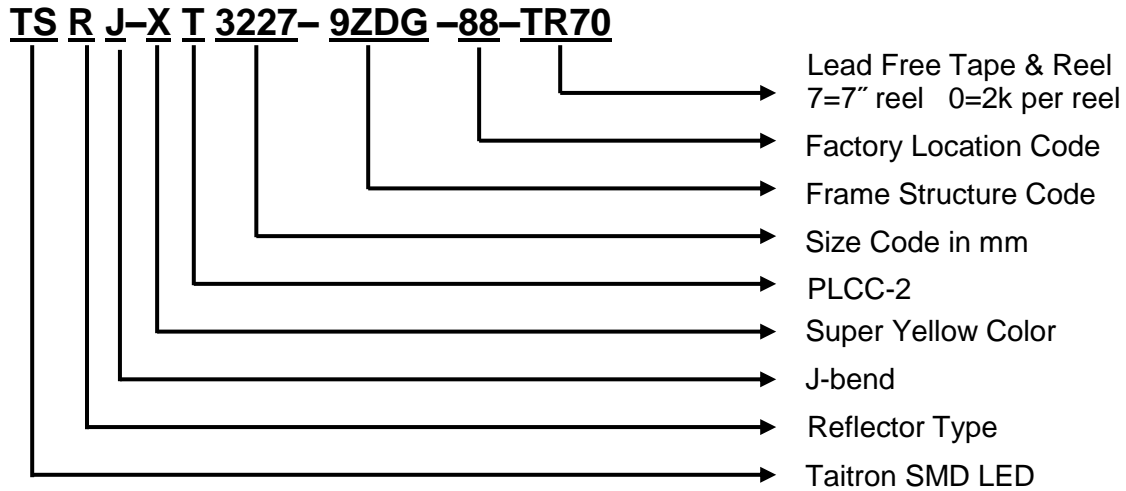


**Note:** The tolerances unless mentioned is  $\pm 0.1$ mm.

# Top View with Super Yellow LED

## TSRJ-XT3227-9ZDG

### Ordering Information



### Rank Combinations

#### Bin Range of Dominant Wavelength

Bin Code	Min	Max	Unit	Condition
Y3	585	588	nm	IF=20mA
YB	588	591		
Y5	591	594		

#### Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
5S	224	285	mcd	IF=20mA
4T	285	335		
5T	335	450		
4U	450	560		

# Top View with Super Yellow LED

## TSRJ-XT3227-9ZDG

### Bin Range of Forward Voltage

Bin Code	Min	Max	Unit	Condition
3	1.85	2.15	V	IF=20mA
4	2.15	2.45		

**Notes:** Tolerance of Luminous Intensity:  $\pm 15\%$

Tolerance of Dominant wavelength:  $\pm 1.0\text{nm}$

Tolerance of Forward Voltage:  $\pm 0.1\text{V}$

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