

0603 Package 0.8mm Height 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



Descriptions

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

Applications

- Automotive: backlighting in dashboard and switch
- Telecommunication: indicator and backlighting in telephone and fax
- Flat backlight for LCD, switches and symbols
- General use

Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
TSP1-XF1608H8-3133	AllnGaP	Super Yellow	Water Clear

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Absolute Maximum Ratings (Ta=25°C)

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

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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	70.7	-----	108	mcd	IF=20mA
Peak Wavelength	λ_p	-----	591	-----	nm	
Dominant Wavelength	λ_d	586	-----	594	nm	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-----	15	-----	nm	
Viewing Angle	2 θ 1/2	-----	100	-----	deg	
Forward Voltage	VF	1.75	-----	2.35	V	
Reverse Current	IR	-----	-----	10	μ A	VR=5V

Notes: Tolerance of Luminous Intensity $\pm 10\%$

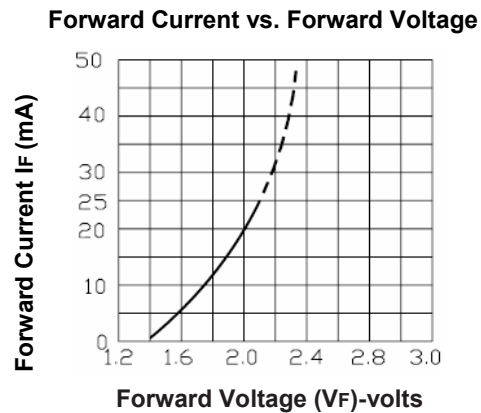
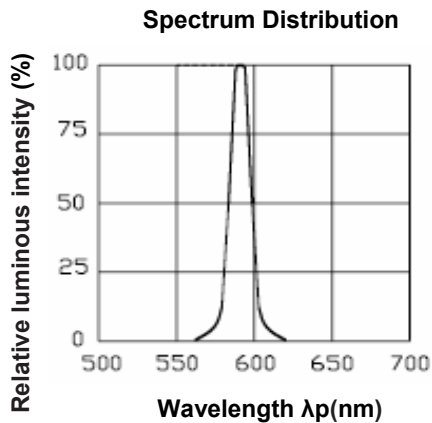
Tolerance of Dominant wavelength $\pm 1\text{nm}$

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

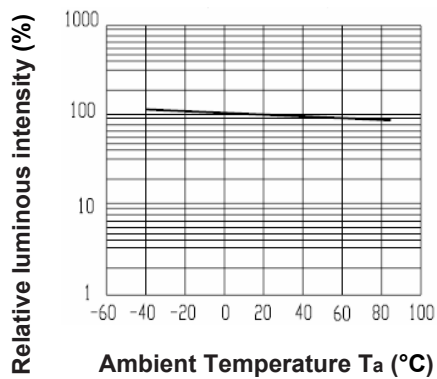
0603 Package 0.8mm Height Super Yellow LED

TSP1-XF1608H8-3133

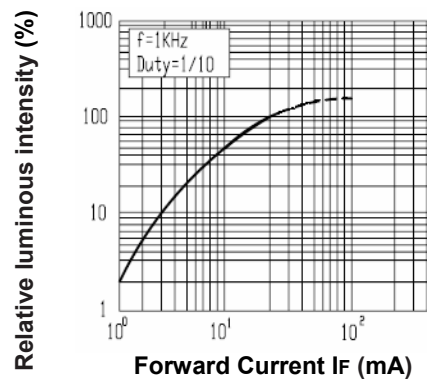
Typical Electro-Optical Characteristics Curves (Ta=25°C)



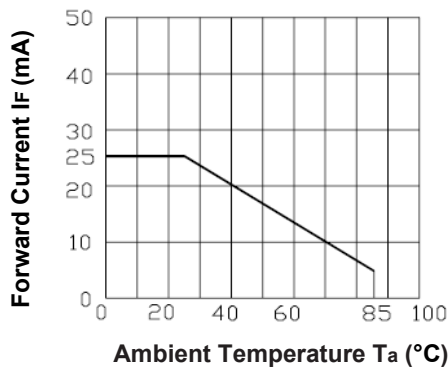
Luminous Intensity vs. Ambient Temperature



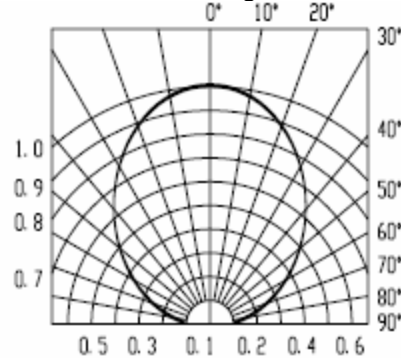
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



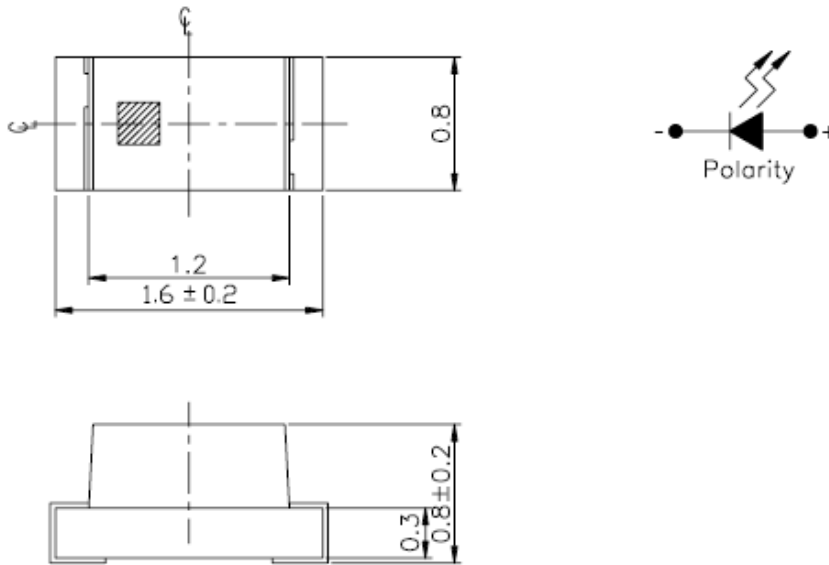
Radiation Diagram



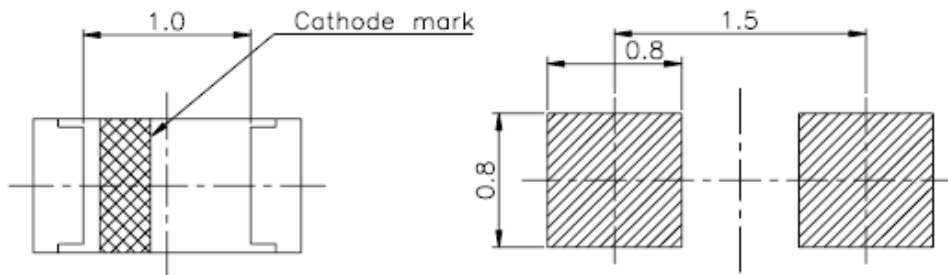
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TSP1-XF1608H8-3133

Package Outline Dimensions (Unit=mm)



Note: The tolerances unless mentioned is ± 0.1 mm, Unit = mm

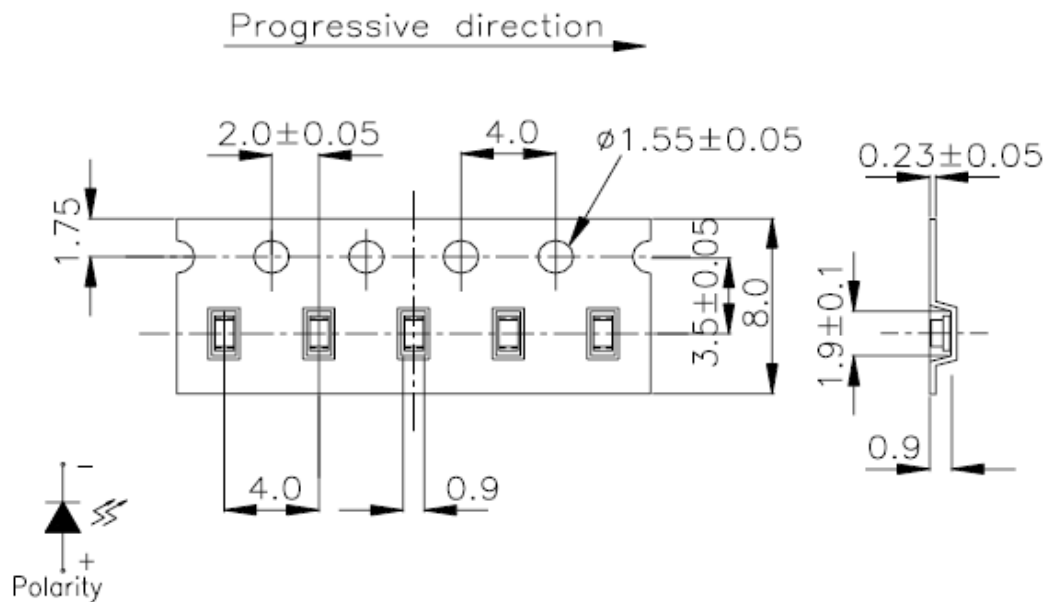


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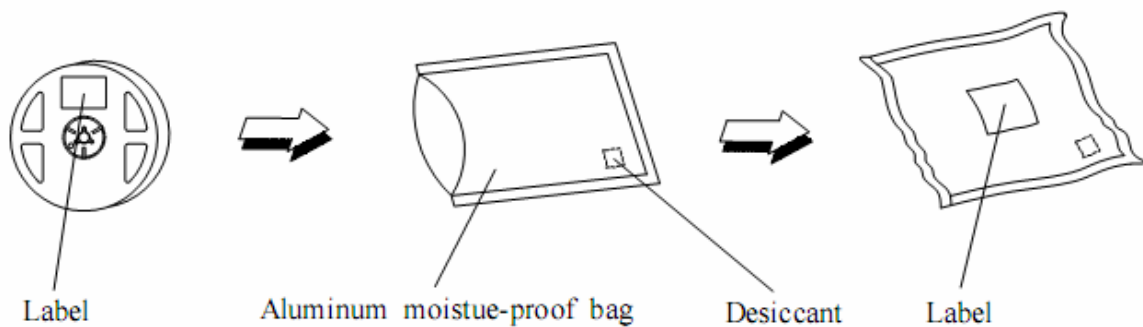
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Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



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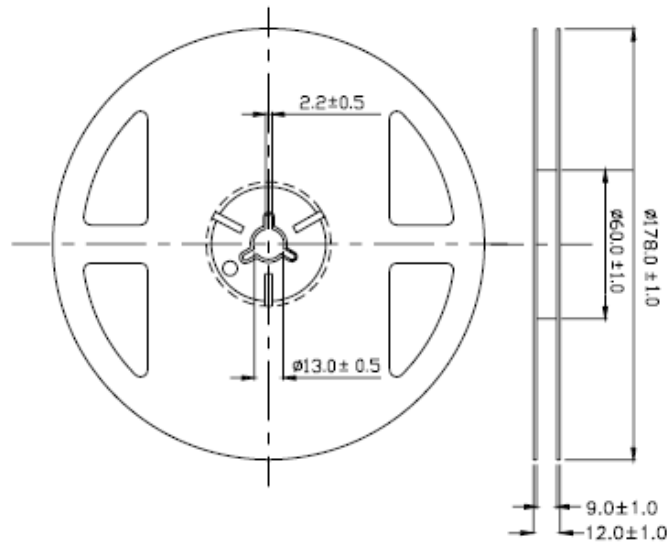
Moisture Resistant Packaging



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TSP1-XF1608H8-3133

Reel Dimensions (Unit=mm):

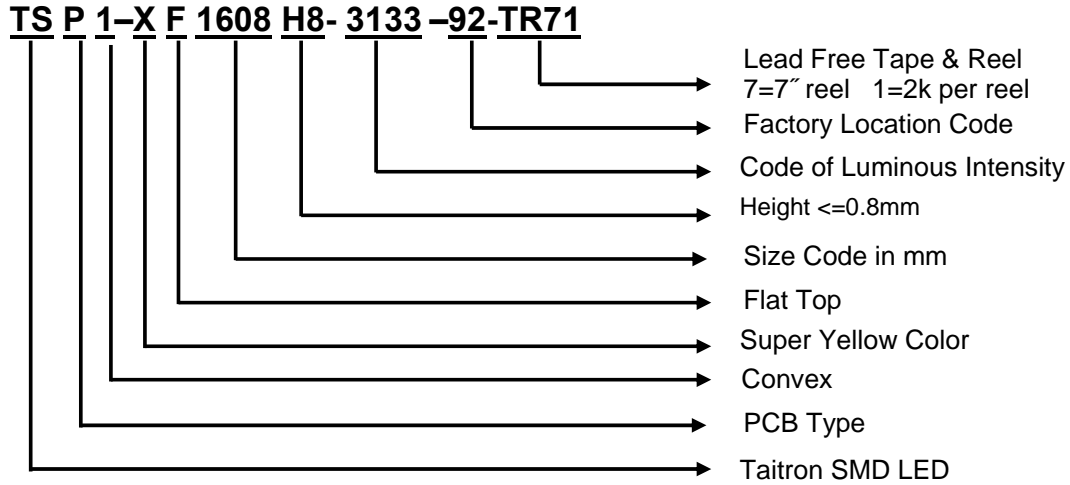


Note: The tolerances unless mentioned is ± 0.1 mm.

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Ordering Information



Label Explanation

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



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Bin Range of HUE

Groups	Bin Code	Min	Max	Unit	Condition
F	DD1	586	588	nm	IF=20mA
	DD2	588	590		
	DD3	590	592		
	DD4	592	594		

Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
31	70.7	81.3	mcd	IF=20mA
32	81.3	93.5		
33	93.5	108.0		

Bin Range of Forward Voltage

Groups	Bin Code	Min	Max	Unit	Condition
B	0	1.75	1.95	V	IF=20mA
	1	1.95	2.15		
	2	2.15	2.35		

Notes: Tolerance of Luminous Intensity $\pm 10\%$

Tolerance of Dominant wavelength $\pm 1\text{nm}$

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

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