



0805 PACKAGE CHIP LED

TSP2-XF2012A3

0805 Package Chip 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 compliance



QSLP2XF2



Applications

- Automotive: Backlighting in dashboards and switch
- Telecommunication: indicator and backlighting in telephone and fax
- Flat backlight for LCD, switches and symbols
- General Use

Descriptions

- This SMD Taping is much smaller than leaded components, thus enable smaller board higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Light weight makes them ideal for miniature applications

Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
TSP2-XF2012A3	AlGaInP	Super Yellow	Water Clear



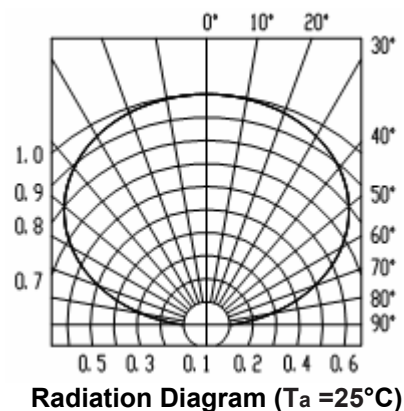
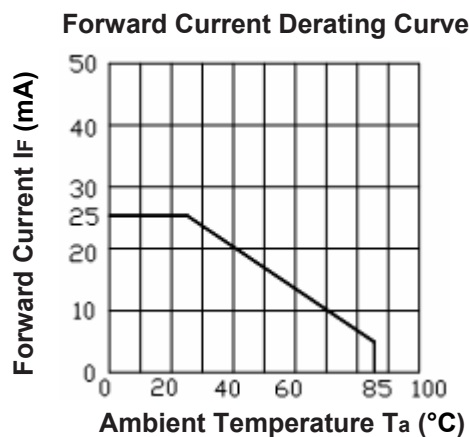
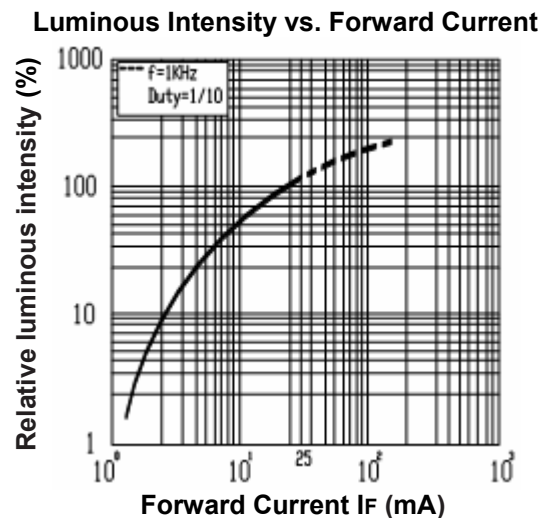
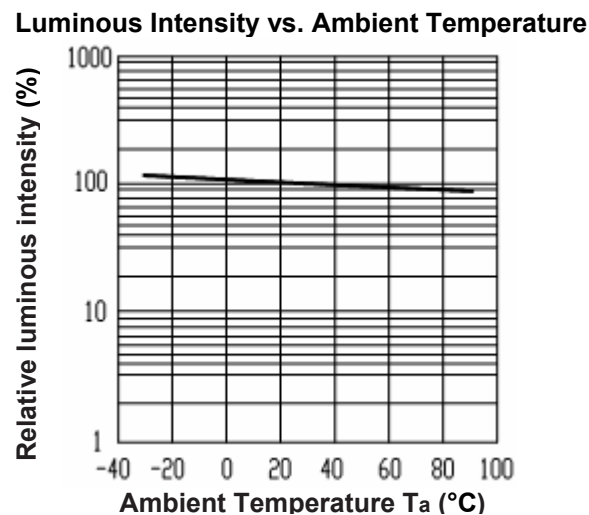
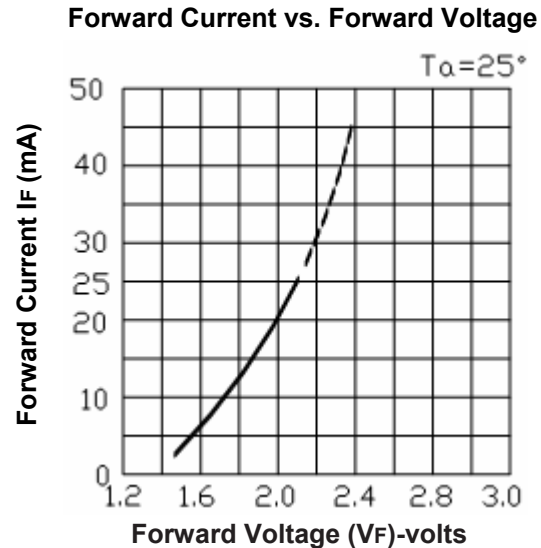
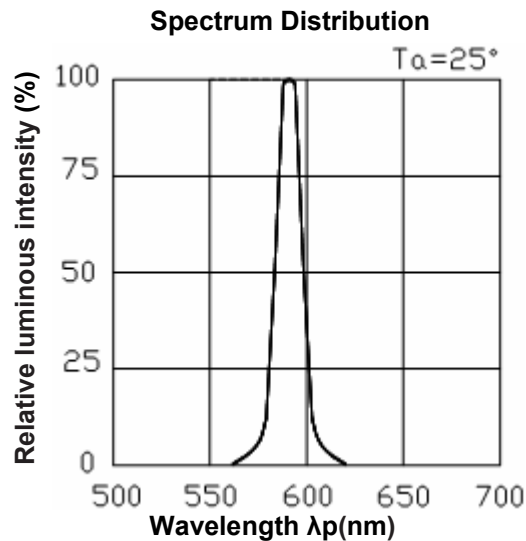
Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	I_{F(Peak)}	160	mA
Power Dissipation	P_d	60	mW
Electrostatic Discharge	ESD	2000	V
Soldering Temperature	T_{sol}	260 (for 5 seconds)	°C
Operating Temperature	T_{opr}	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +90	°C

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	----	4	----	mcd	I _F =2mA
		41	64	----	mcd	I _F =20mA
Viewing Angle	2θ_{1/2}	----	140	----	deg	
Peak Wavelength	λ_p	----	591	----	nm	
Dominant wavelength	λ_d	----	589	----	nm	
Spectrum Radiation Bandwidth	Δλ	----	15	----	nm	
Forward Voltage	V_F	----	2.0	2.4	V	V _R =5V
Reverse Current	I_R	----	----	10	μA	

Typical Electro-Optical Characteristics Curves



Reliability Test Items and Conditions

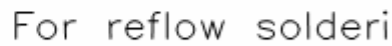
The reliability of products shall be satisfied with items listed below.

Confidence level: 90%,

LTPD: 10%

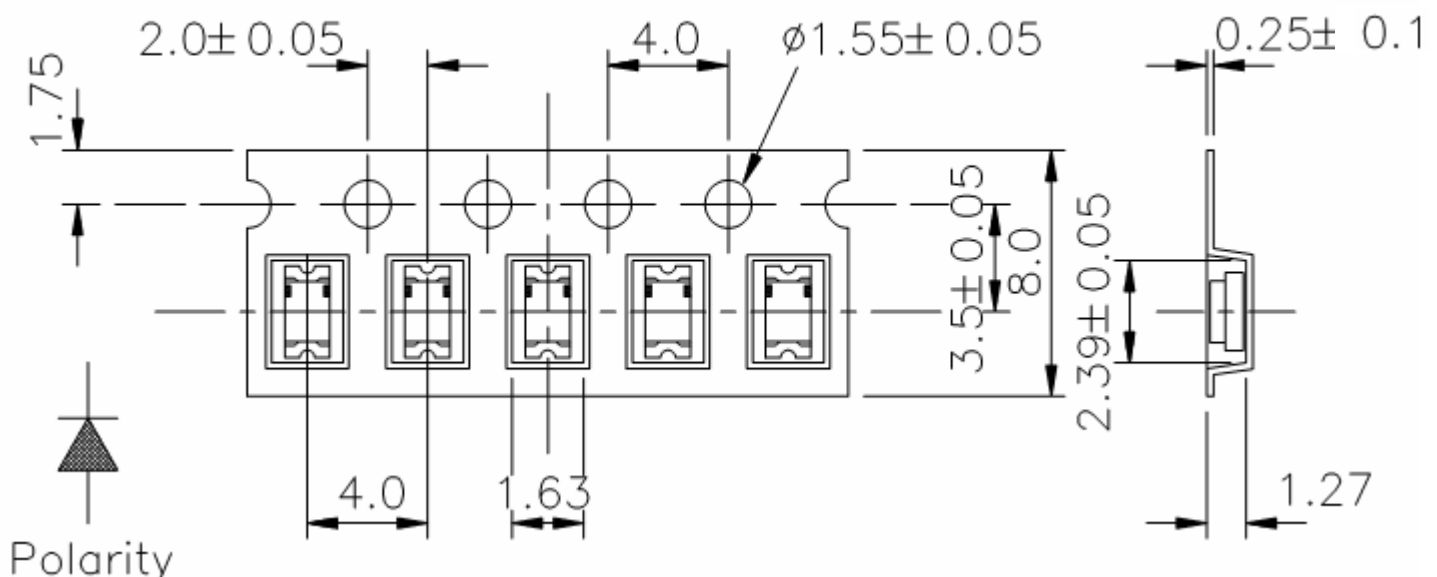
No.	Items	Test Condition	Test Hours / Cycles	Sample Size	Ac/Re
1	Solder Heat	Temp.: 260°C ±5°C.	5 Sec	76 PCS.	0/1
2	Temperature Cycle	H: +85°C 30min └ 5 min L: -55°C 15min	50 Cycles	76 PCS.	0/1
3	Thermal Shock	H: +100°C 5min └ 10 sec L: -10°C 5min	50 Cycles	76 PCS.	0/1
4	High Temperature Storage	Temp: 100°C	1000 Hrs.	76 PCS.	0/1
5	Low Temperature Storage	Temp: -55°C	1000 Hrs.	76 PCS.	0/1
6	DC Operating Life	I _F = 20 mA	1000 Hrs.	76 PCS.	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000 Hrs.	76 PCS.	0/1

CATHODE

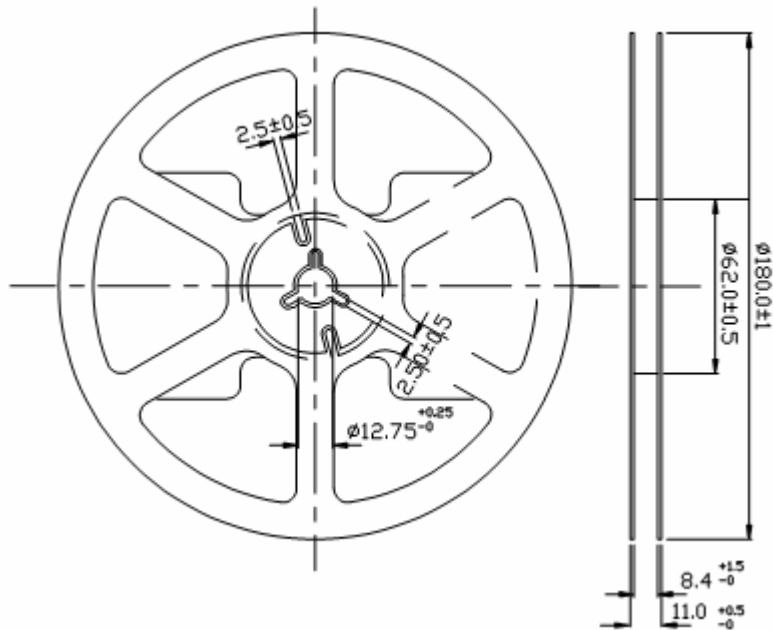


Carrier Tape Dimensions

Progressive direction

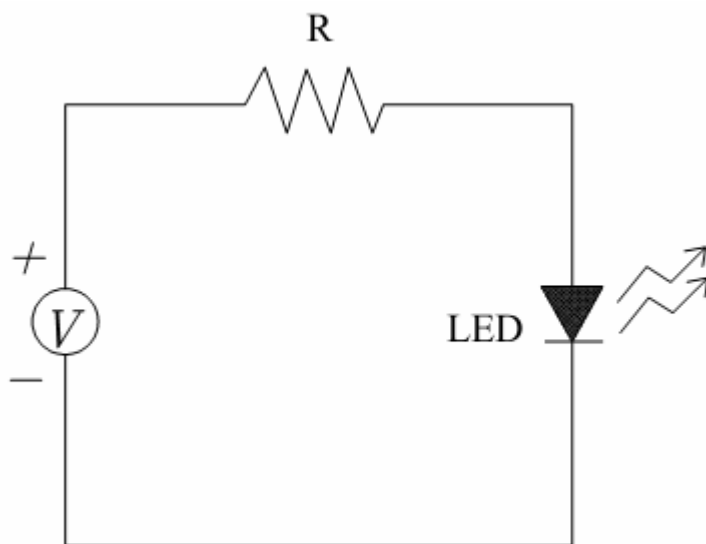


Reel Dimensions



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit = mm

Test Circuit

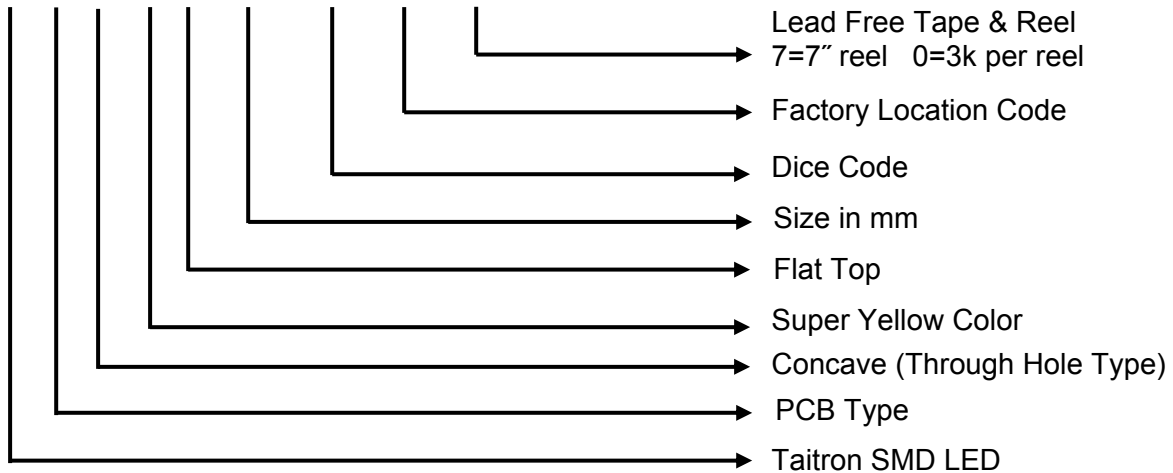


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Ordering Information

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