

0603 Package 0.8mm Height Super Blue 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



QSLP1BF1



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 dashboards and switch
- Telecommunication: indicator and backlighting in telephone and fax
- Flat backlight for LCD, switches and symbols
- General use
- Indoor signboard use.

Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
TSP1-BF1608H8-2528	InGaN	Super Blue	Water Clear

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Absolute Maximum Ratings (Ta=25°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_{FP}	100	mA
Power Dissipation	P_d	110	mW
Electrostatic Discharge (HBM)	ESD	150	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 (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	30.5	-----	53.5	mcd	I _F =20mA
Viewing Angle	2θ_{1/2}	-----	100	-----	deg	
Peak Wavelength	λ_p	-----	468	-----	nm	
Dominant wavelength	λ_d	464	-----	472	nm	
Spectrum Radiation Bandwidth	Δλ	-----	35	-----	nm	
Forward Voltage	V_F	2.75	-----	3.65	V	V _R =5V
Reverse Current	I_R	-----	-----	10	μA	

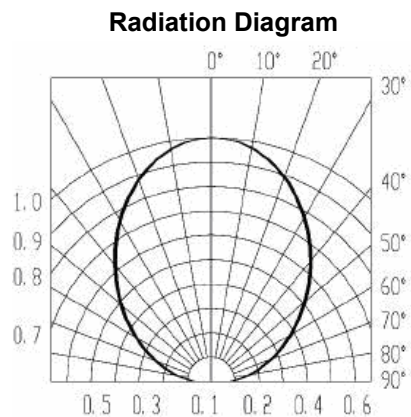
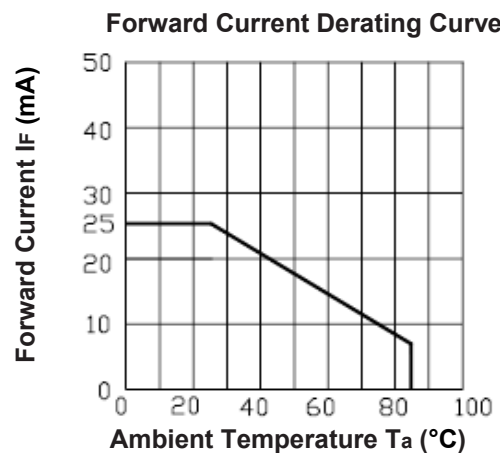
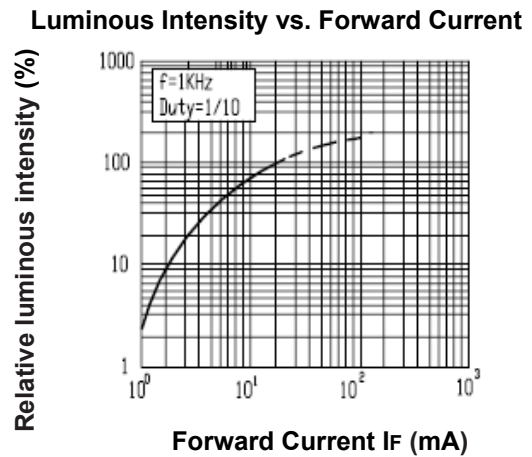
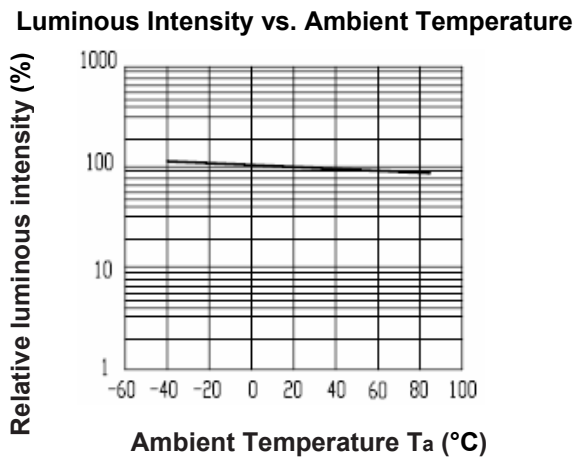
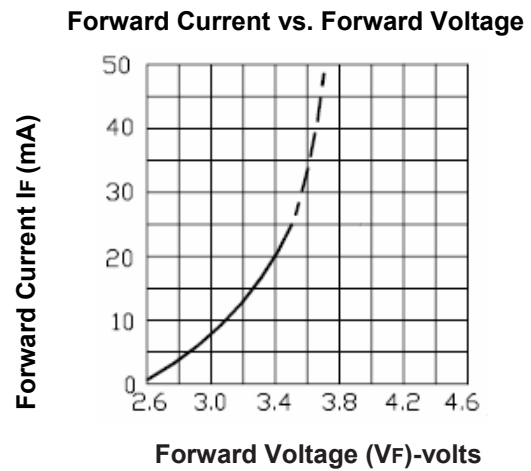
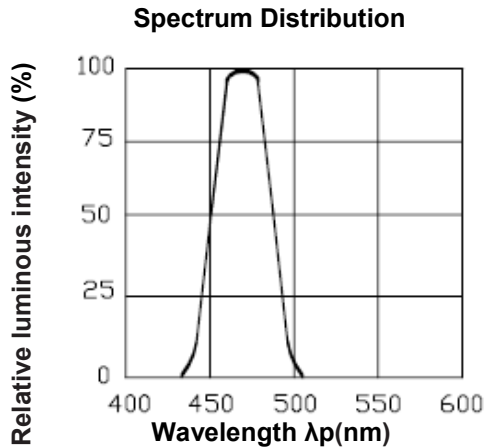
Notes:

1. Tolerance of Luminous Intensity ±10%
2. Tolerance of Dominant Wavelength ±1nm
3. Tolerance of Forward Voltage ±0.1V

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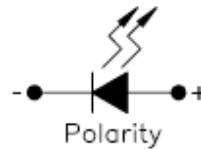
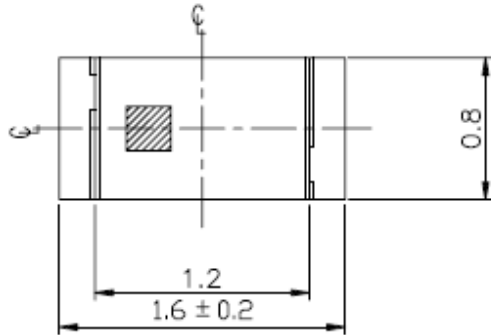
Typical Electro-Optical Characteristics Curves (Ta = 25°C)



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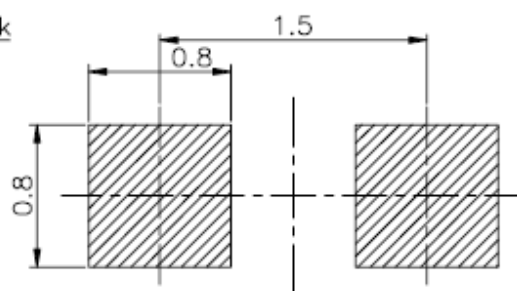
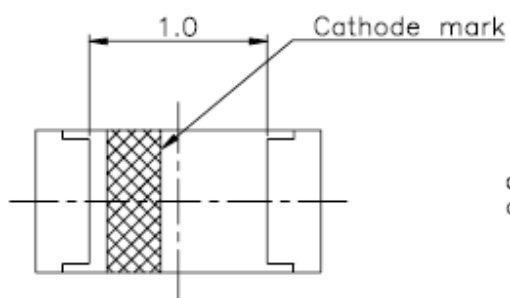
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Package Outline Dimensions (Unit=mm)



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

For reflow soldering

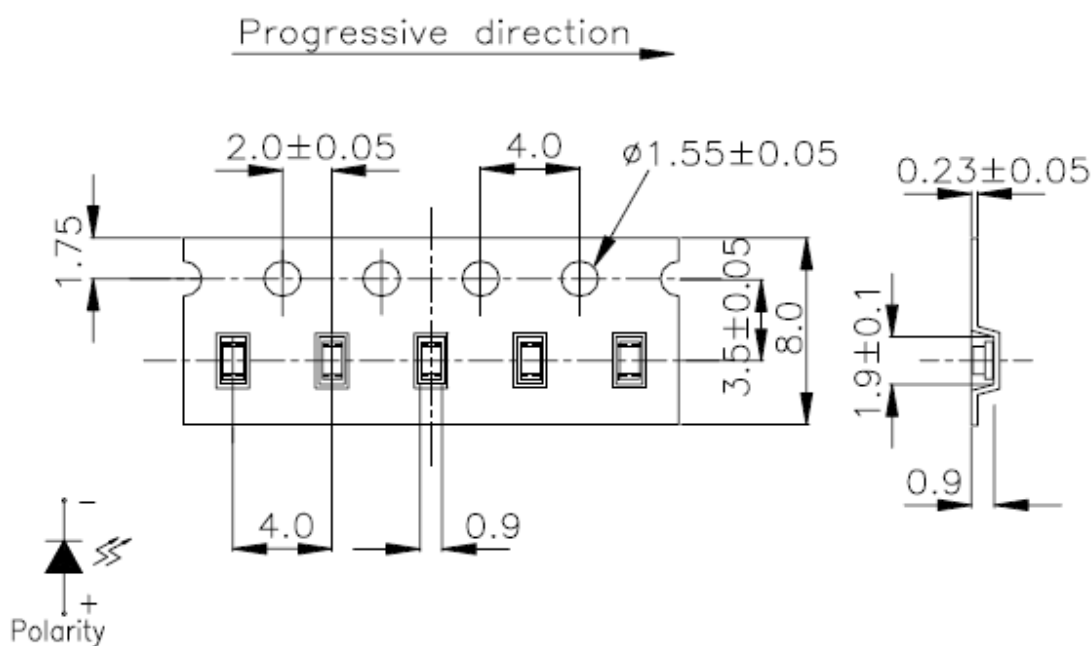


Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit = mm

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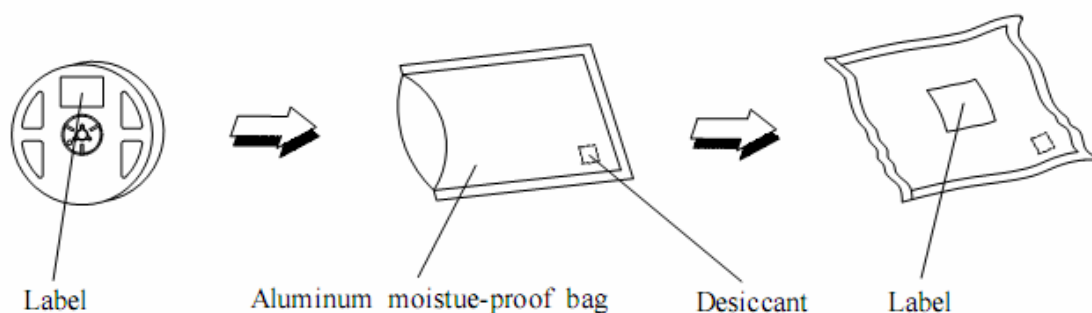
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Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



Note: The tolerances unless mentioned is ± 0.1 mm.

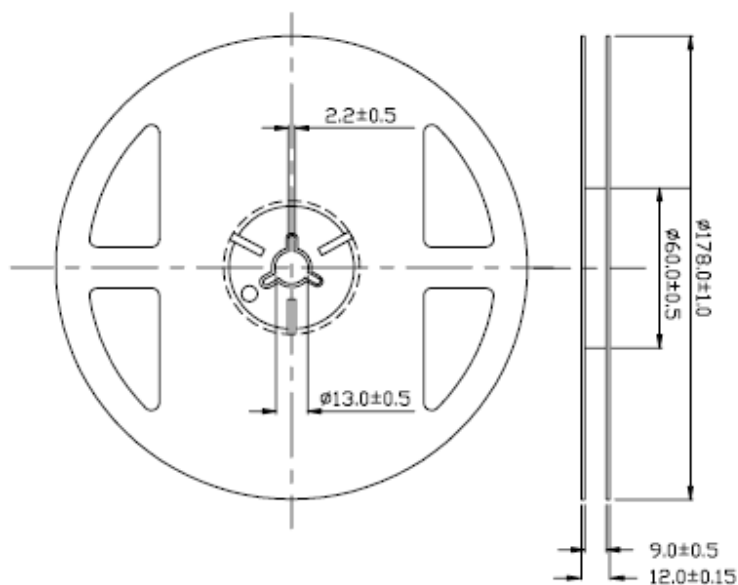
Moisture Resistant Packaging



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Reel Dimensions (Unit= mm):



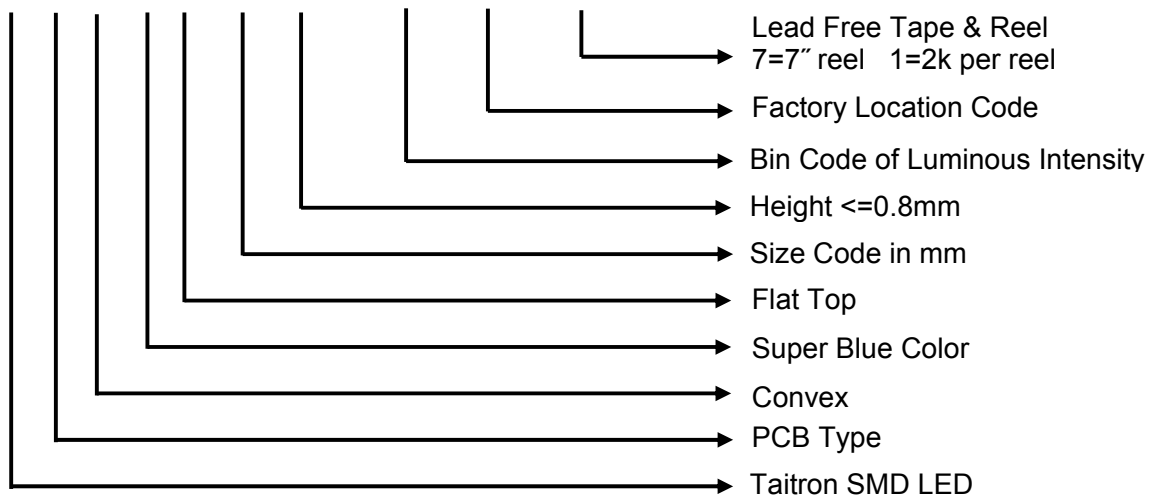
Note: The tolerances unless mentioned is ± 0.1 mm.

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Ordering Information

TS P 1- B F 1608 H8 - 2528- 92-TR71



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	AA1	464	466	nm	IF=20mA
	AA2	466	468		
	AA3	468	470		
	AA4	470	472		

Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
25	30.5	35.0	mcd	IF=20mA
26	35.0	40.5		
27	40.5	46.5		
28	46.5	53.5		

Bin Range of Forward Voltage

Groups	Bin Code	Min	Max	Unit	Condition
E	5	2.75	3.05	V	IF=20mA
	6	3.05	3.35		
	7	3.35	3.65		

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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