

1206 Reverse Package 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



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-BF3216-P1Q2	InGaN	Super Blue	Water Clear

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TSP3-BF3216-P1Q2

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	100	mA
Power Dissipation	Pd	95	mW
Electrostatic Discharge	ESD	150	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	Iv	45.0	-----	112.0	mcd	IF=20mA
Viewing Angle	2θ1/2	-----	130	-----	deg	
Peak Wavelength	λp	-----	468.0	-----	nm	
Dominant Wavelength	λd	464.5	-----	476.5	nm	
Spectrum Radiation Bandwidth	Δλ	-----	25	-----	nm	
Forward Voltage	VF	2.7	3.3	3.7	V	
Reverse Current	IR	-----	-----	50	uA	VR=5V

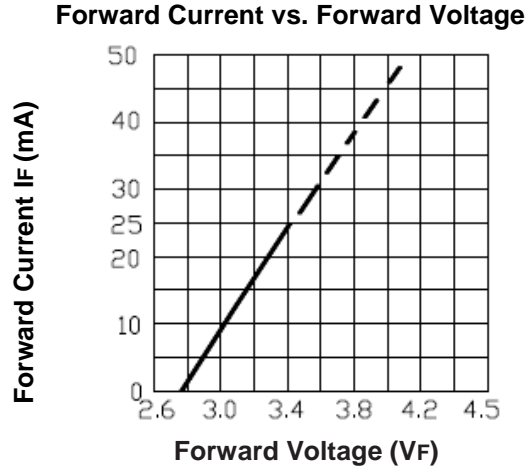
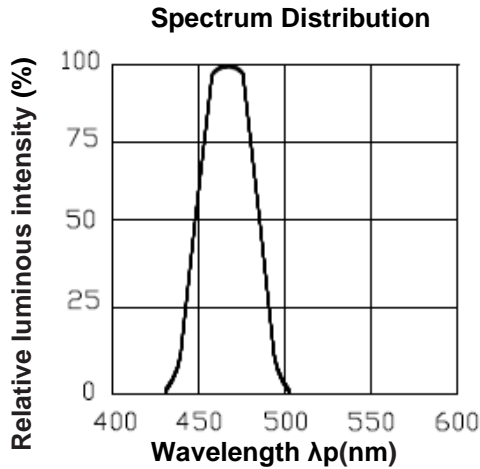
Notes: Tolerance of Luminous Intensity: ±10%

Tolerance of Dominant wavelength: ±1.0nm

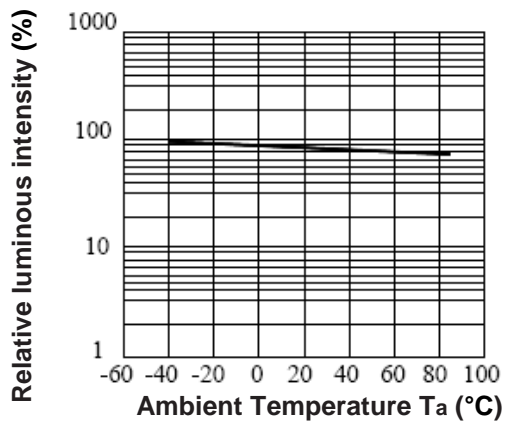
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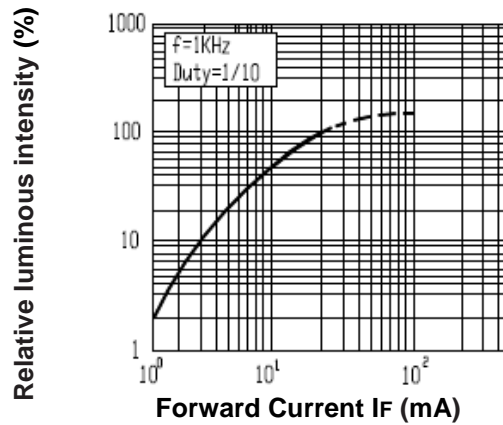
Typical Electro-Optical Characteristics Curves (Ta=25°C)



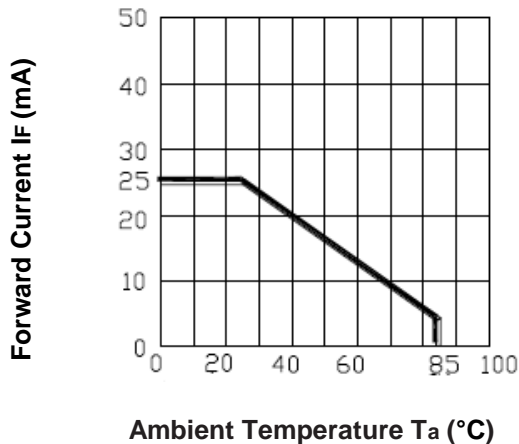
Luminous Intensity vs. Ambient Temperature



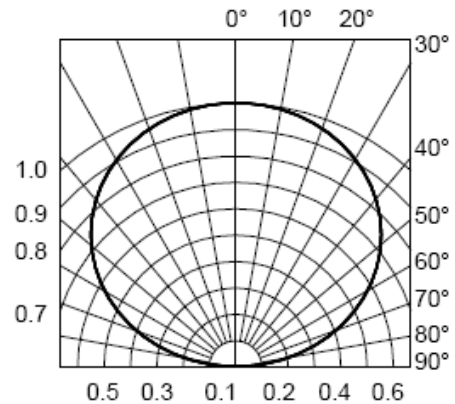
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



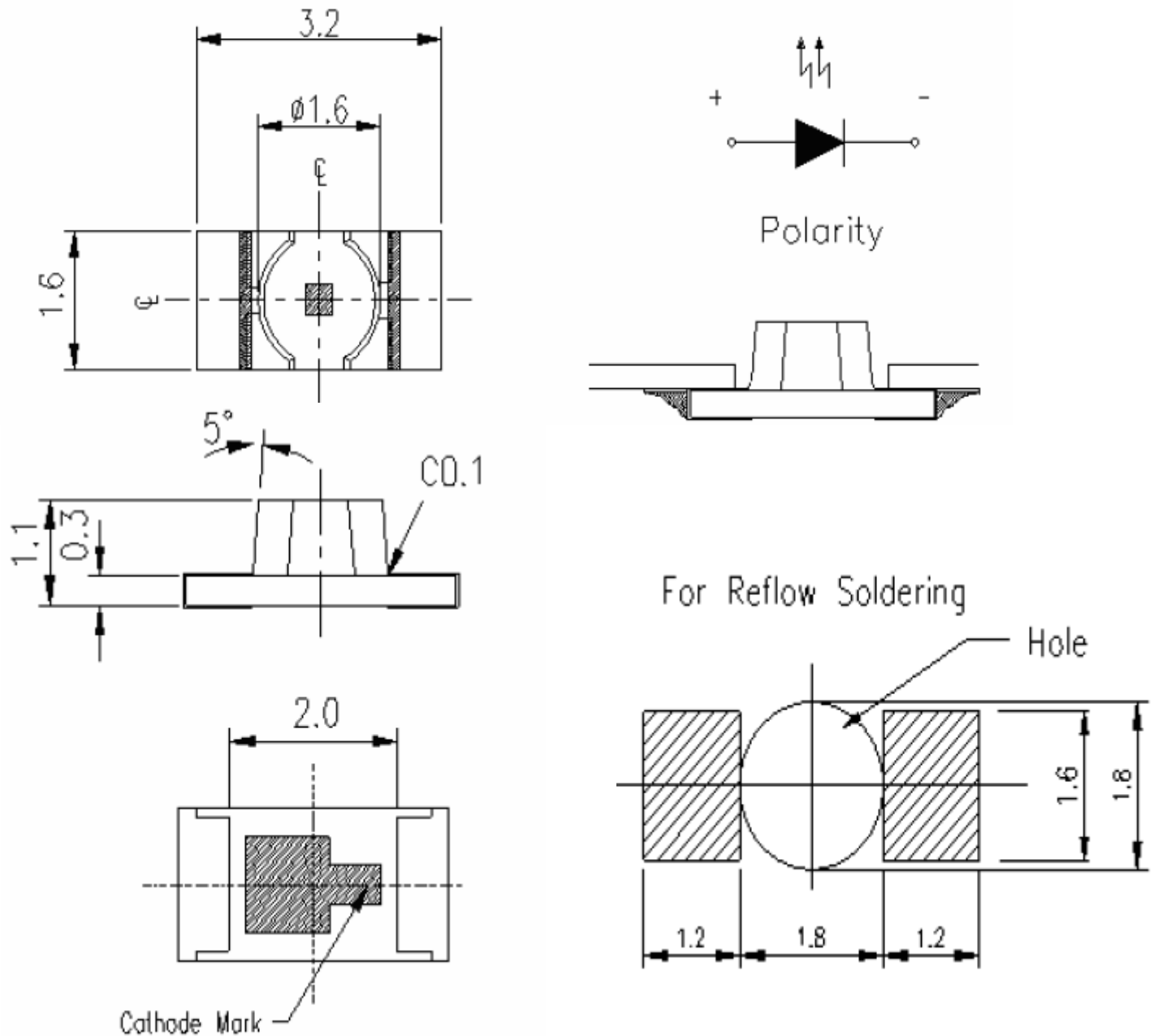
Radiation Diagram



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Package Outline Dimensions (Unit=mm)

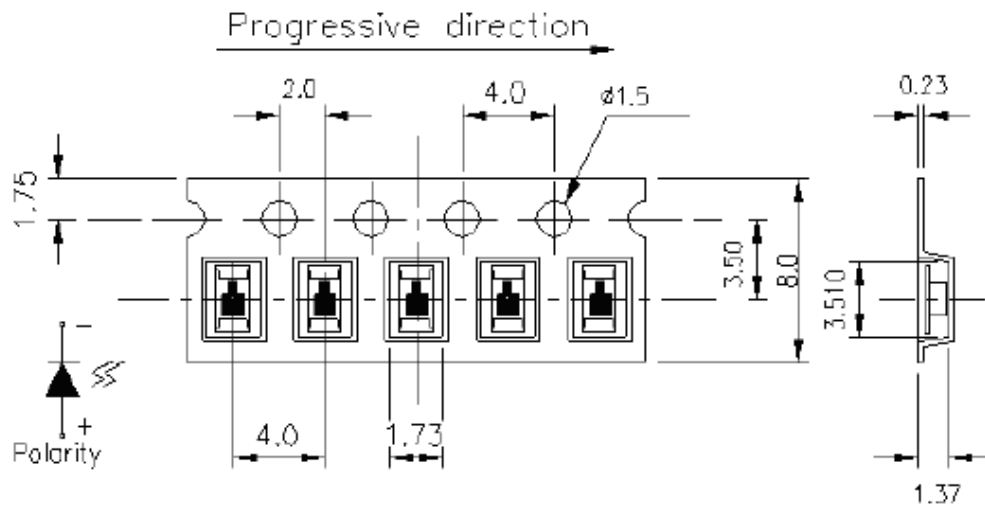


Note: The tolerances unless mentioned is ± 0.1 mm, Angle is $\pm 0.5^\circ$, Unit = mm

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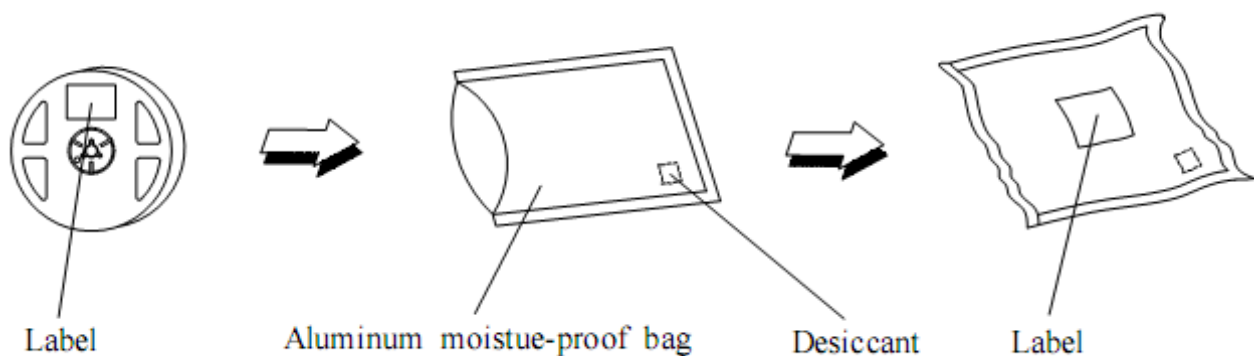
TSP3-BF3216-P1Q2

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



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

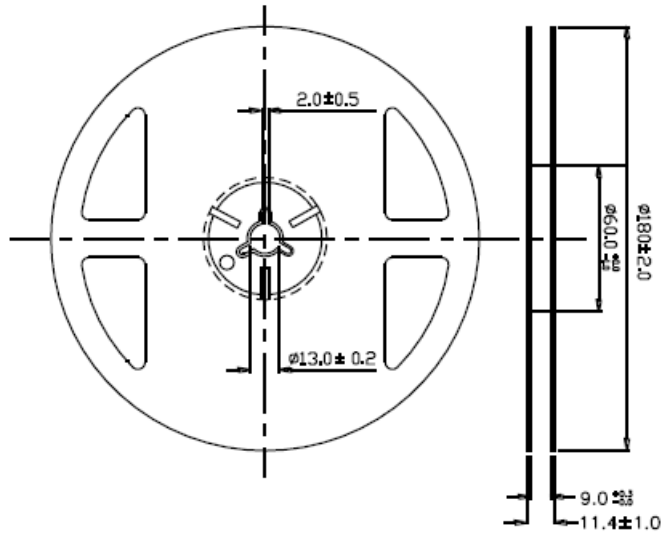
Moisture Resistant Packaging



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Reel Dimensions (Unit=mm):

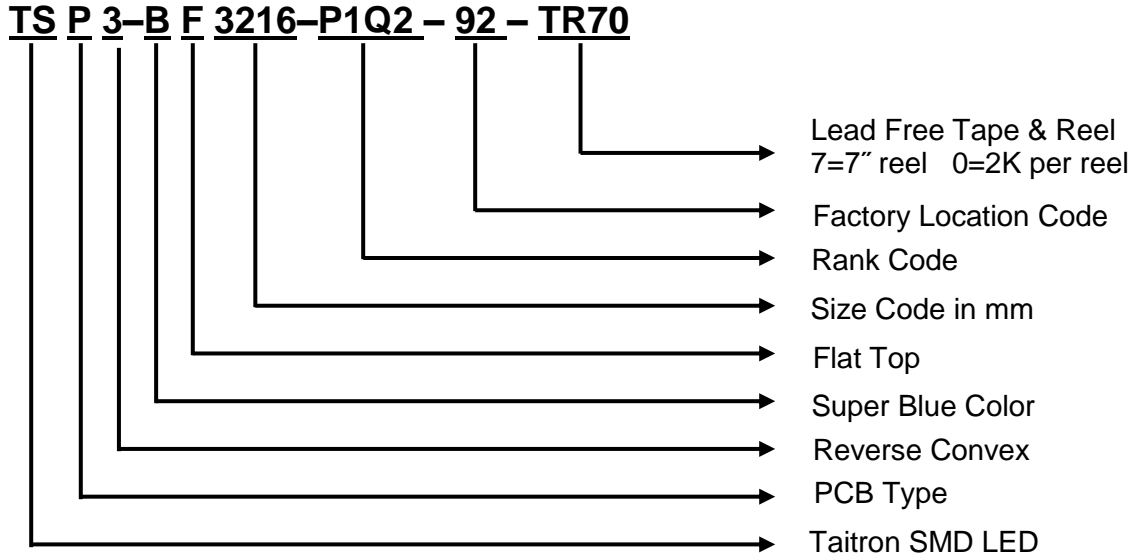


Note: The tolerances unless mentioned is ± 0.1 mm.

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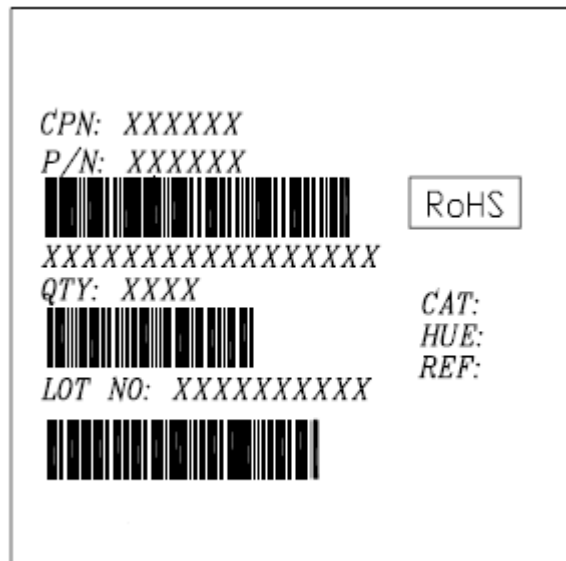
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Ordering Information



Label Explanation

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



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Rank Combination

Bin Range of Dominant Wavelength

Group	Bin Code	Min	Max	Unit	Condition
A	A9	464.5	467.5	nm	IF=20mA
	A10	467.5	470.5		
	A11	470.5	473.5		
	A12	473.5	476.5		

Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
P1	45.0	57.0	mcd	IF=20mA
P2	57.0	72.0		
Q1	72.0	90.0		
Q2	90.0	112.0		

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

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

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