

Top View with Super Blue 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-BT3227-9ZEG	InGaN	Super Blue	Water Clear

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Average Forward Current	IF	20	mA
Peak Forward Current (tp<=10us, Duty Cycle=0.005)	IFP	200	mA
Power Dissipation	PD	73.0	mW
Current Linearity vs. Ambient Temperature	TCI	-0.20	mA/°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Junction Temperature	Tj	125	°C
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	285	350	715	mcd	IF=20mA
Dominant Wavelength	λ_d	464	470	476	nm	
Spectrum Radiation Bandwidth	$\Delta\lambda$	-----	25	-----	nm	
Viewing Angle	$2\theta_{1/2}$	-----	120	-----	deg	
Forward Voltage	VF	2.75	3.40	3.65	V	
Reverse Current	IR	-----	-----	10	μ A	VR=5V

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

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

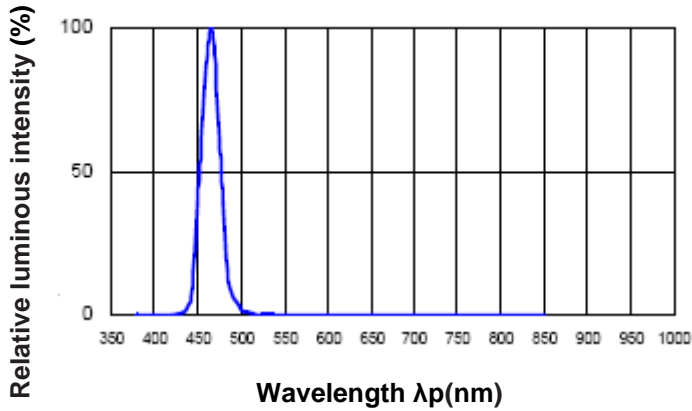
Tolerance of Forward Voltage $\pm 0.05\text{V}$

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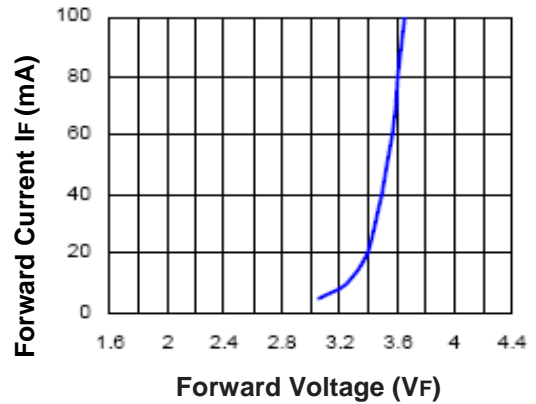
TSRJ-BT3227-9ZEG

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

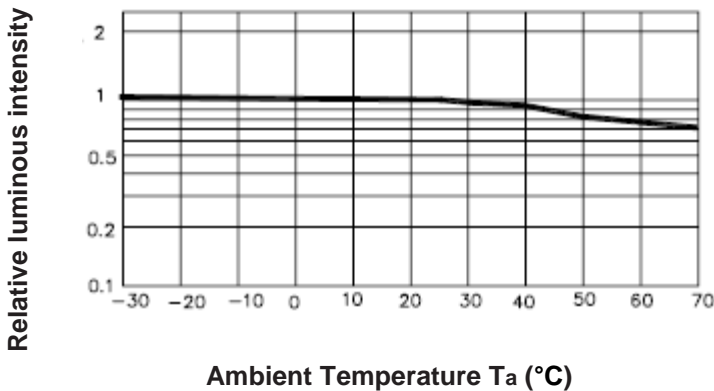
Spectrum Distribution



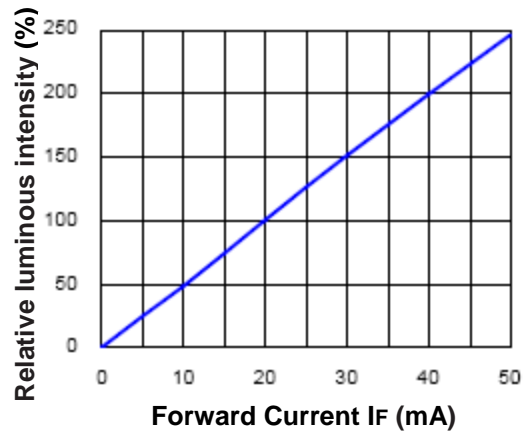
Forward Current vs. Forward Voltage



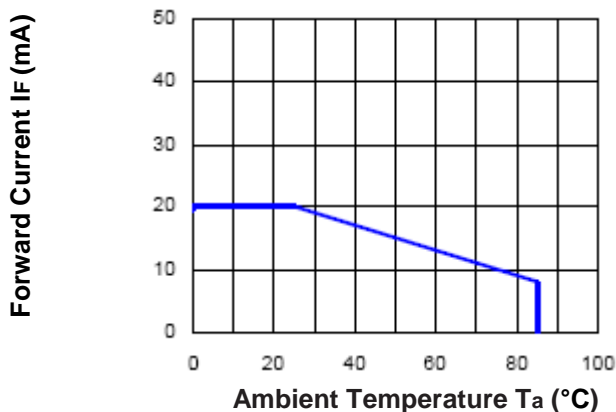
Luminous Intensity vs. Ambient Temperature



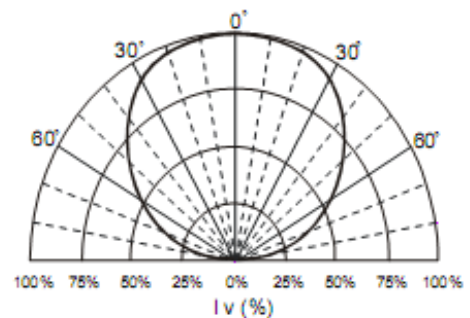
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



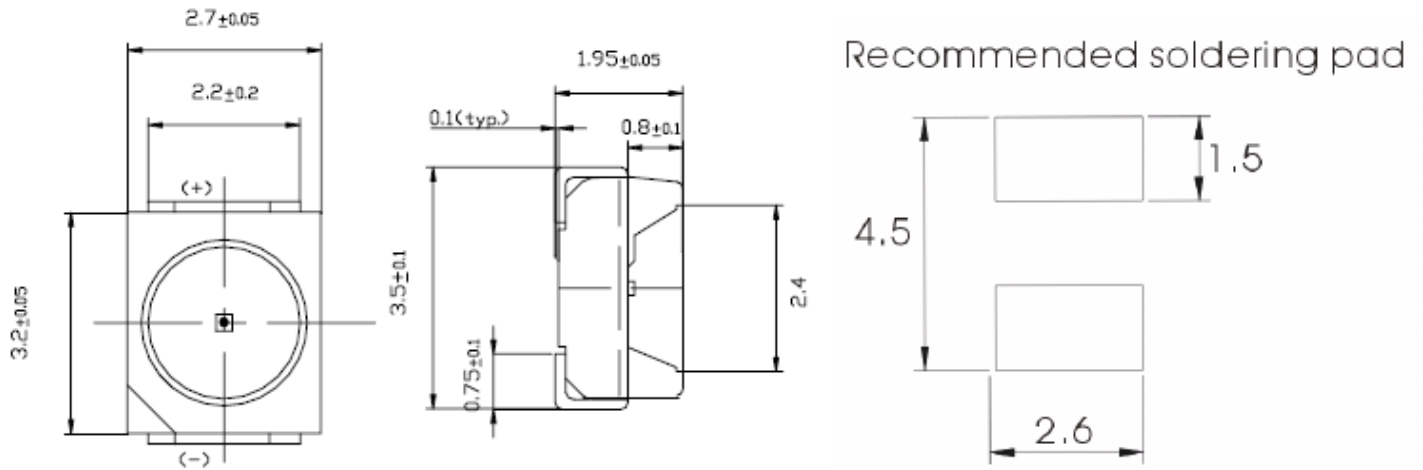
Radiation Diagram



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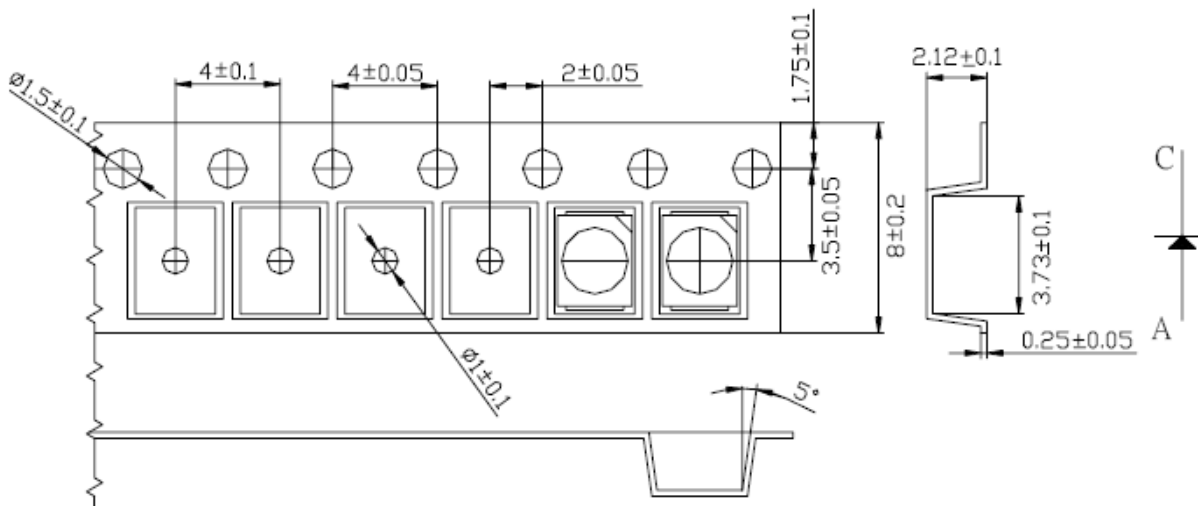
TSRJ-BT3227-9ZEG

Package Outline Dimensions (Unit=mm)

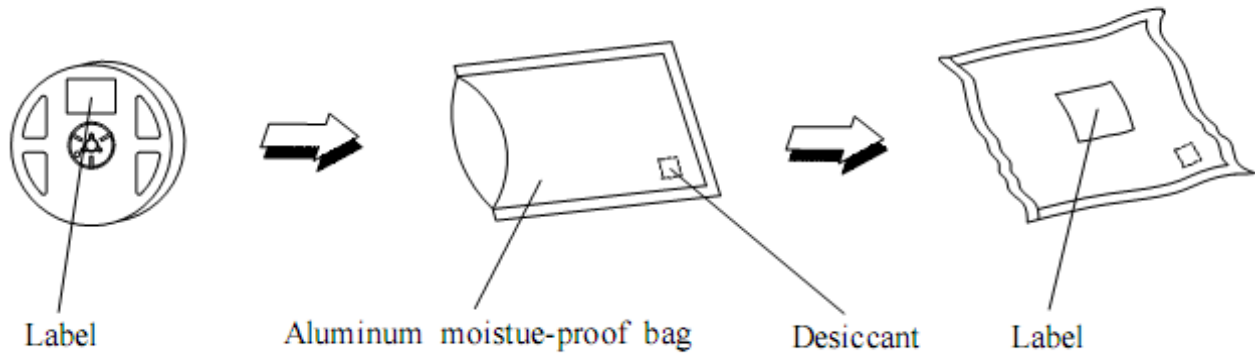


Note: The tolerances unless mentioned is ± 0.2 mm.

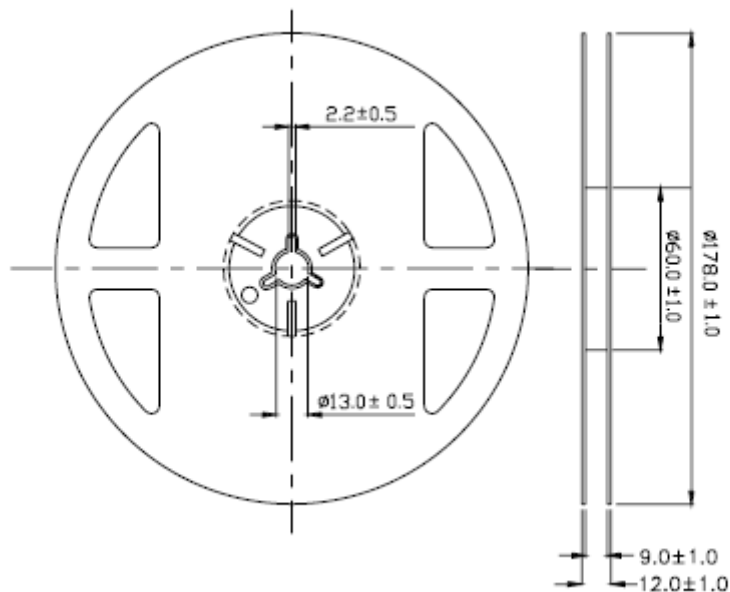
Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



Moisture Resistant Packaging



Reel Dimensions (Unit=mm):

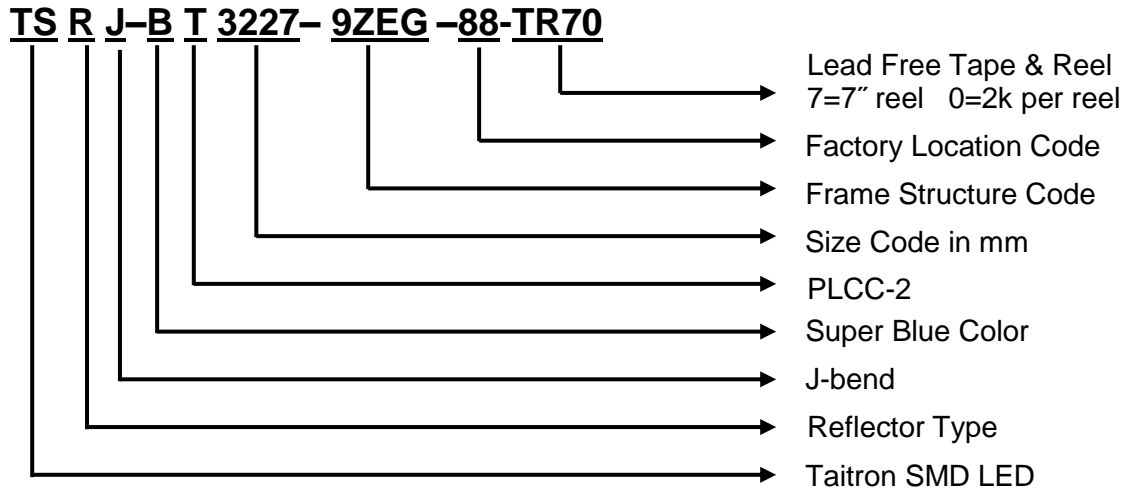


Note: The tolerances unless mentioned is ± 0.1 mm.

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Ordering Information



Rank Combinations

Bin Range of Dominant Wavelength

Bin Code	Min	Max	Unit	Condition
B1	464.0	468.0	nm	IF=20mA
B2	468.0	472.0		
B3	472.0	476.0		

Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
4T	285.0	355.0	mcd	IF=20mA
5T	355.0	450.0		
4U	450.0	560.0		
5U	560.0	715.0		

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Bin Range of Forward Voltage

Bin Code	Min	Max	Unit	Condition
H	2.75	3.05	V	IF=20mA
J	3.05	3.35		
K	3.35	3.65		

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

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

Tolerance of Forward Voltage $\pm 0.05\text{V}$

Bin code 5U is with less distribution.

How to contact us

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