

Top View with True Green LED

Features

- PLCC-2 compatible package.
- Compatible with automatic placement equipment.
- Class 1C 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-TT3227-9ZEG	InGaN	True Green	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	mW
Electrostatic Discharge (HBM)	ESD	1000	V
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

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I_v	560	900	1400	mcd	IF=20mA
Dominant Wavelength	λ_d	520	525	532	nm	
Spectrum Radiation Bandwidth	Δ λ	-----	25	-----	nm	
Viewing Angle	2θ1/2	-----	120	-----	deg	
Forward Voltage	V_F	2.75	3.40	3.65	V	
Reverse Current	I_R	-----	-----	10	μ A	VR=5V

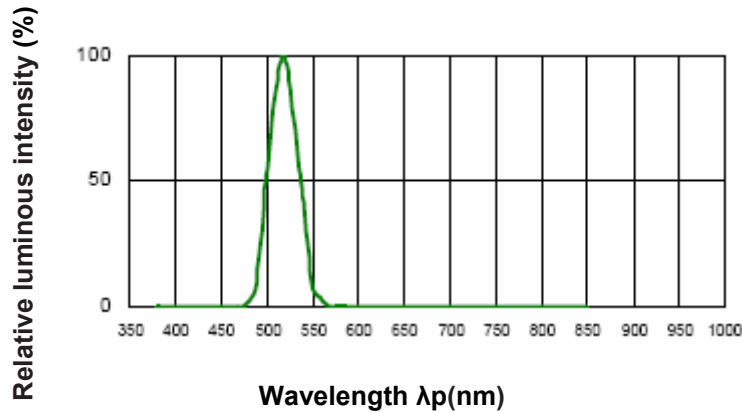
Notes: Tolerance of Luminous Intensity ±15%

Tolerance of Dominant wavelength ±1.0nm

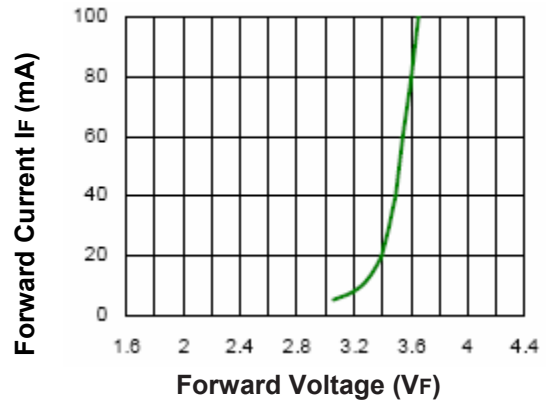
Tolerance of Forward Voltage ±0.05V

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

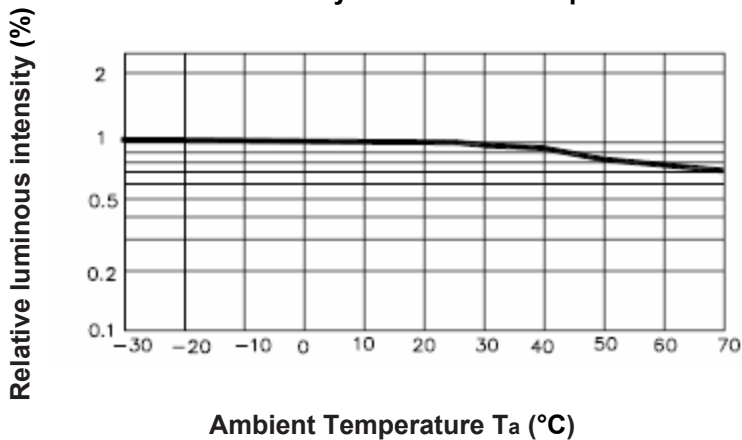
Spectrum Distribution



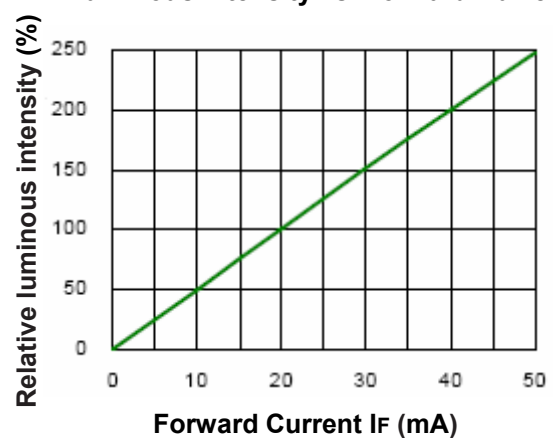
Forward Current vs. Forward Voltage



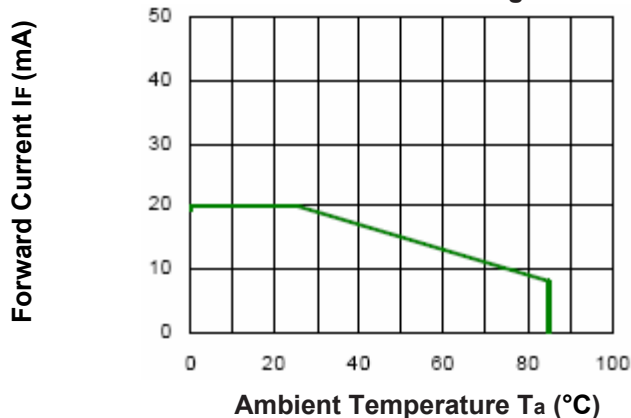
Luminous Intensity vs. Ambient Temperature



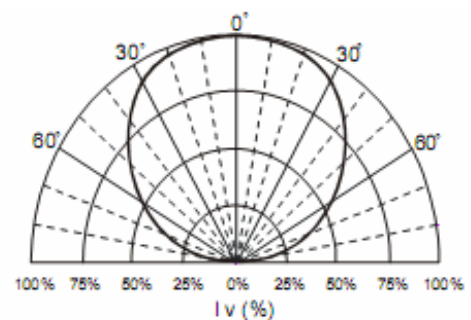
Luminous Intensity vs. Forward Current



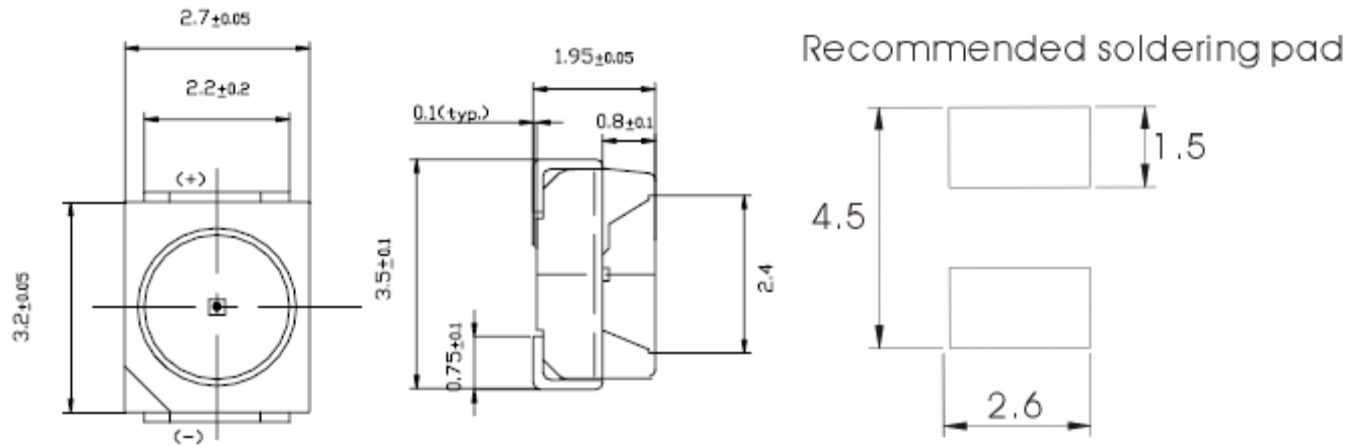
Forward Current Derating Curve



Radiation Diagram

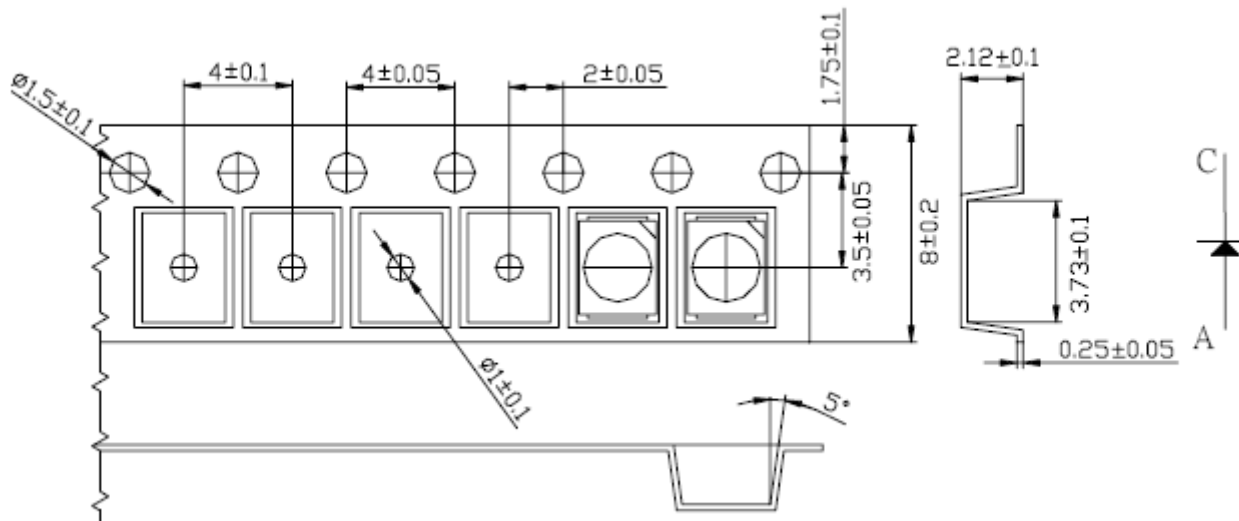


Package Outline Dimensions (Unit=mm)

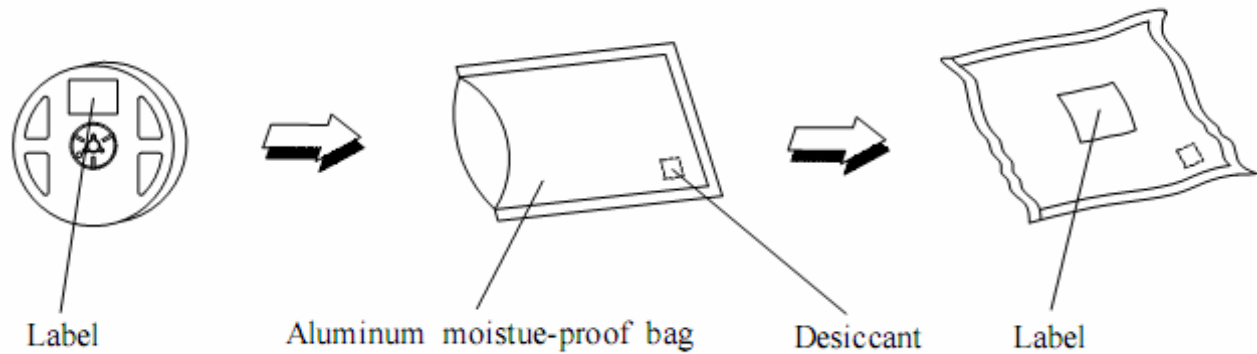


Note: The tolerances unless mentioned is $\pm 0.20\text{mm}$.

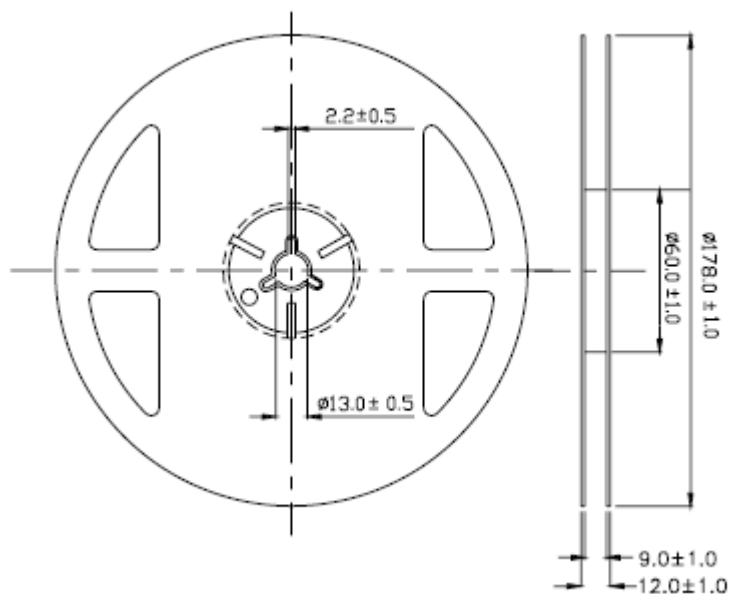
Carrier Tape Dimensions (Unit=mm): Loaded quantity 2000pcs per reel



Moisture Resistant Packaging

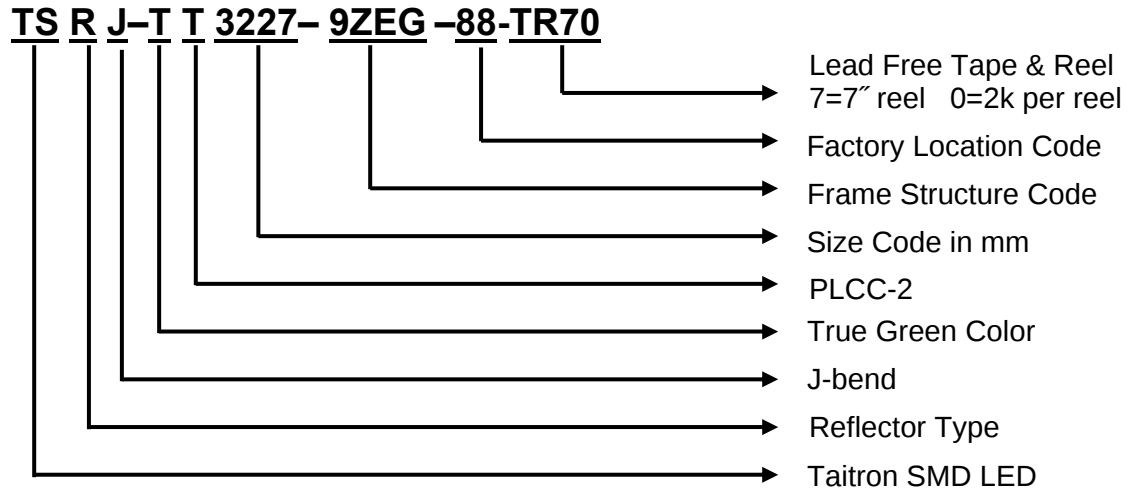


Reel Dimensions (Unit=mm):



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$.

Ordering Information



Rank Combinations

Bin Range of Dominant Wavelength

Bin Code	Min	Max	Unit	Condition
F3	520.0	524.0	nm	IF=20mA
F4	524.0	528.0		
F7	528.0	532.0		

Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
5U	560	715	mcd	IF=20mA
4V	715	900		
5V	900	1125		
4W	1125	1400		

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 4W is with less distribution.

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