

Super Flux LED Technical Data

SDSF-315NSTR-S

Feature

- High Luminous Output Orange-Red Super Flux LED
- AlInGaP Chip Technology
- Low Thermal Resistance
- Low Lighting System Cost
- Packaged in Tubes for Use with Automatic Insertion
- Wide Viewing Angle **70** Degree(Reference Value)

Applications

- Automotive Exterior Lighting
- Electronic Signs and Traffic Signals
- Illuminations

Specification

Absolute Maximum Ratings:

Ta = 25°C

Item	Symbol	Absolute Maximum Rating	Unit
DC Forward Current	I _F	70	mA
Pulse Forward Current ※	IFP	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _d	210	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Preheat Temperature		100°C For 30 Seconds	
Solder Temperature		260°C For 5 Seconds	

※ Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10

Electrical / Optical Characteristics

Ta = 25°C

Item	Symbol	Condition	Min	Typ	Max	Unit	
Forward Voltage	V _F	I _F =50mA		2.1	2.5	V	
Reverse Current	I _R	V _R =5V			50	μA	
Dominant Wavelength	λ _d	I _F =50mA	615	625	635	nm	
Peak Wavelength	λ _p	I _F =50mA		630		nm	
Spectral Half Width	Δ λ 1/2	I _F =50mA		15		nm	
Luminous Flux	Rank U	Φ _v	I _F =50mA	3200	3700	4200	mcd
	Rank V		I _F =50mA	4200	4800	5500	mcd
	Rank W		I _F =50mA	5500	6300	7200	mcd

Measurement Uncertainty of Luminous Intensity: ±10%

Color Bin Table

I_F=70mA

Rank name	Min (nm)	Max (nm)
1	615	620
2	620	625
3	625	630
4	630	635

※ Tolerance for each bin limit is ± 1nm

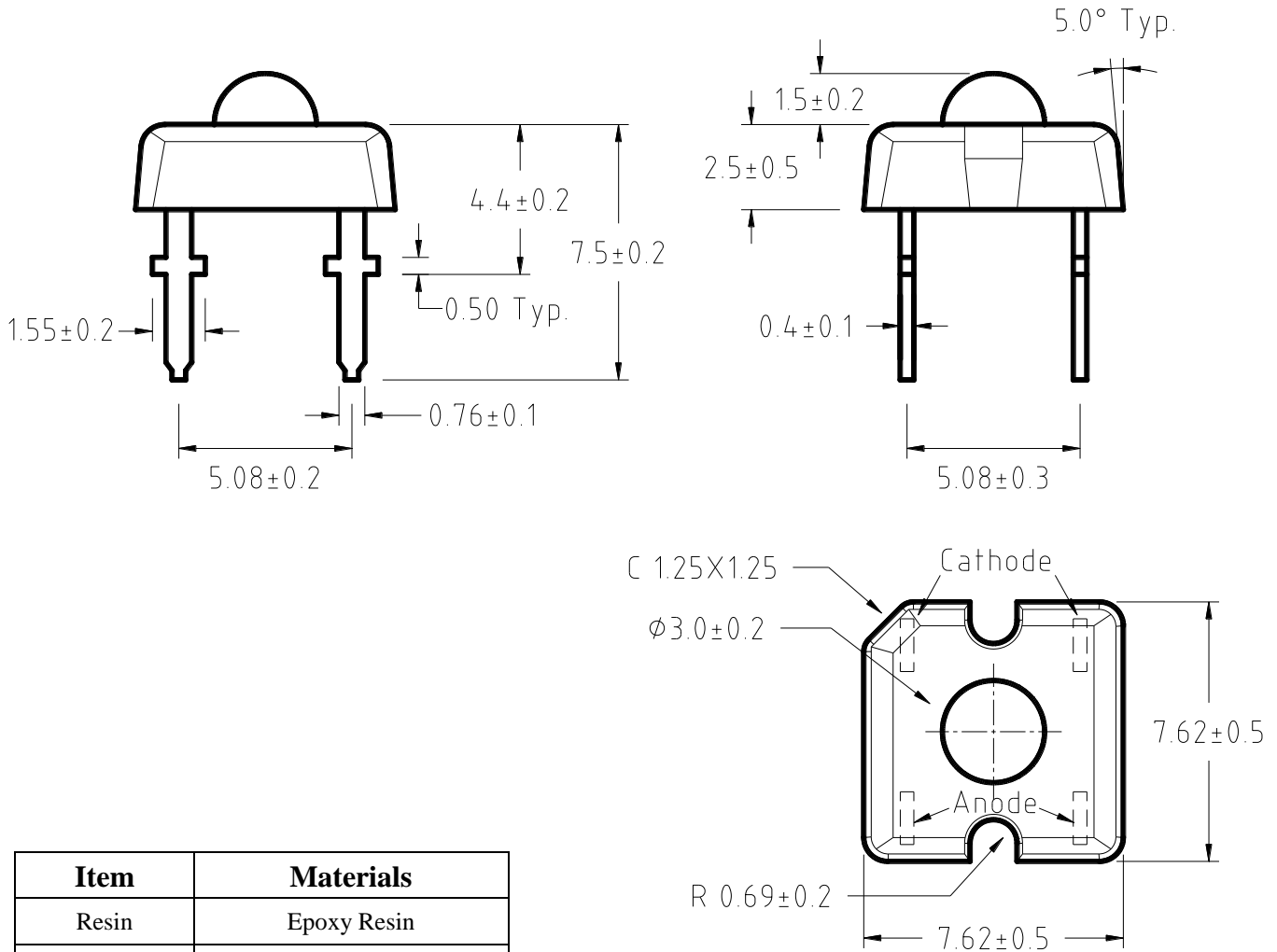
Note

- One delivery will include several color ranks and I_v ranks of products.
The quantity-ratio of the different rank is decided by Sander.
- Bin Name typed on the Label: IV RANK + Color Rank.
For Example, **BIN F2 Means Lumen: 3460~4500lm and Color: 620nm~625nm**
- Sander has the right to update the information without notice.
Please double confirm the Spec details before place an order.



Electrostatic Sensitive Devices

Outline Dimensions



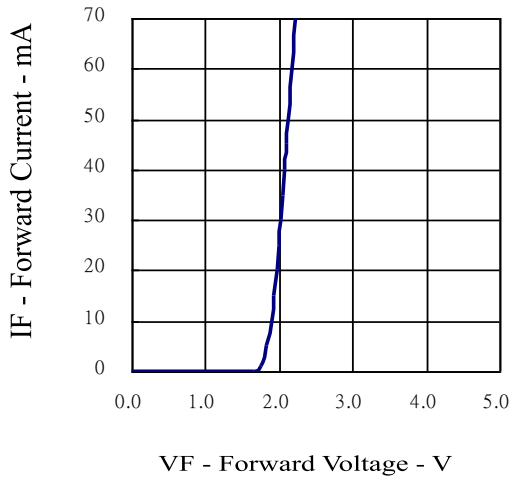
Notes:

1. All Dimensions are in Millimeters

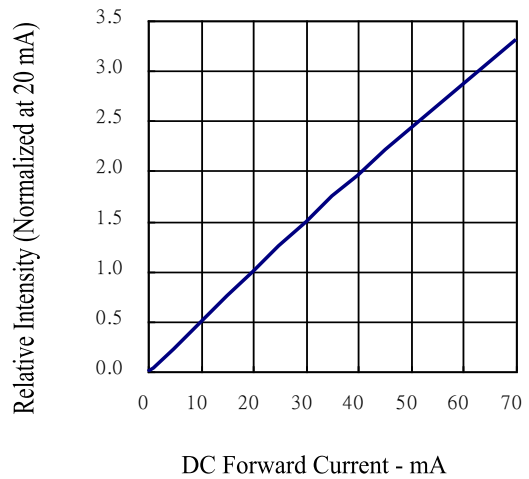


Electrical-Optical Characteristics

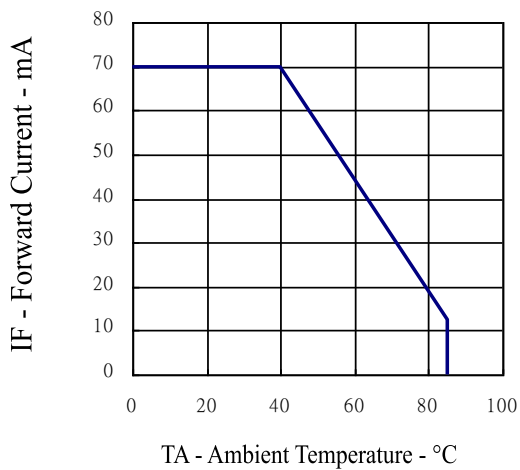
Forward Current vs. Forward Voltage



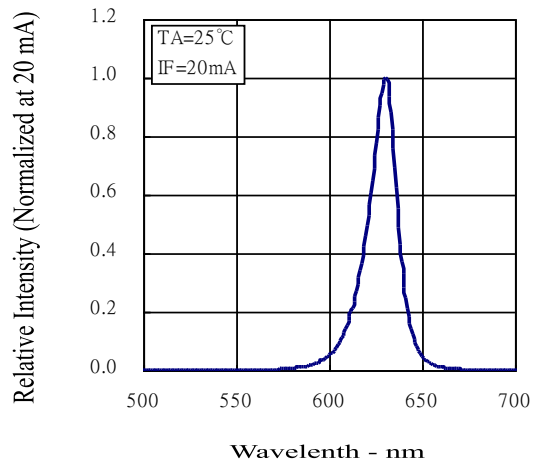
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength



Electrostatic Sensitive Devices

Soldering Conditions - Lamp Type LED

- Solder the LED no closer than 3mm from the base of the epoxy bulb. Soldering beyond the base of the tie bar is recommended
- Recommended soldering conditions

Dip Soldering	
Pre-Heat	100°C Max.
Pre-Heat Time	60 sec. Max.
Solder Bath Temperature	260°C Max.
Dipping Time	5 sec. Max.
Dipping Position	No lower than 3mm from the base of the epoxy bulb.

Hand Soldering		
	30 Series	Others (Including Lead-Free Solder)
Temperature	300°C Max.	350°C Max.
Soldering time	3 sec. Max.	3 sec. Max.
Position	No closer than 3mm from the base of the epoxy bulb.	No closer than 3mm from the base of the epoxy bulb.

- Do not apply any stress to the lead, particularly when heated
- The LEDs must not be repositioned after soldering
- After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until the LEDs return to room temperature.
- Direct soldering onto a PC board should be avoided. Mechanical stress to the resin may be caused by the PC board warping or from the clinching and cutting of the leadframes. When it is absolutely necessary, the LEDs may be mounted in this fashion, but, the User will assume responsibility for any problems. Direct soldering should only be done after testing has confirmed that no damage, such as wire bond failure or resin deterioration, will occur. Sander's LEDs should not be soldered directly to double sided PC boards because the heat will deteriorate the epoxy resin.
- When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.
- Cut the LED leadframes at room temperature. Cutting the leadframes at high temperatures may cause LED failure.