



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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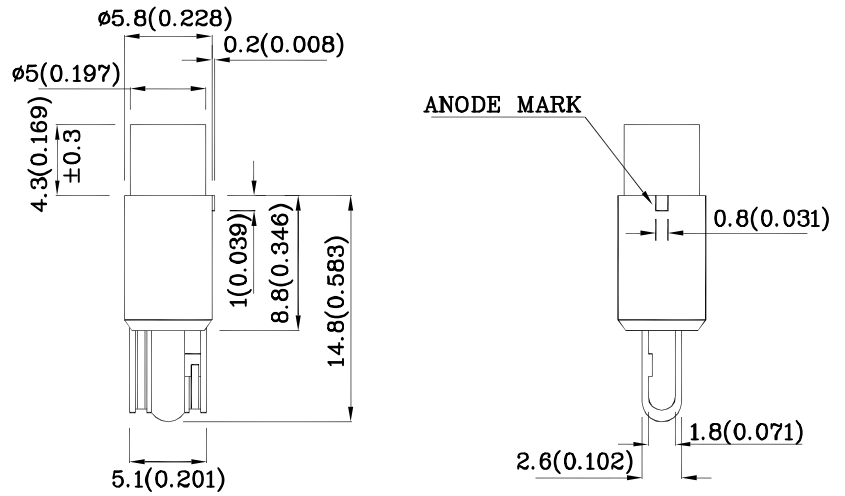
**Features**

- Housing material: Type 66 Nylon
- Housing UL rating: 94V-0
- Reliable & robust
- 14V internal resistor.
- RoHS Compliant



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

**Package Schematics**



Notes:

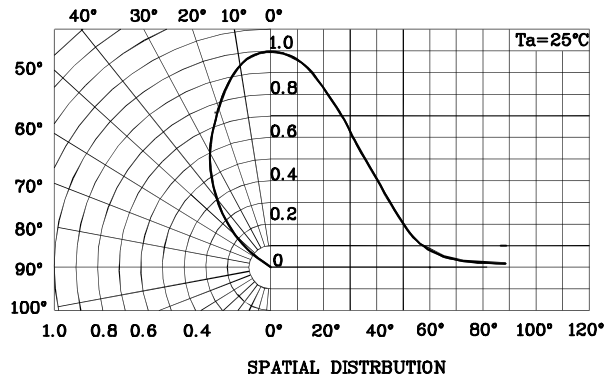
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		FRS (InGaN)	Unit
Reverse Voltage	$V_R$	5	V
Forward Voltage	$V_F$	16	V
Power Dissipation	$P_D$	160	mW
Electrostatic Discharge Threshold (HBM)		250	V
Operating Temperature	$T_A$	-40 ~ +70	°C
Storage Temperature	$T_{stg}$	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds		

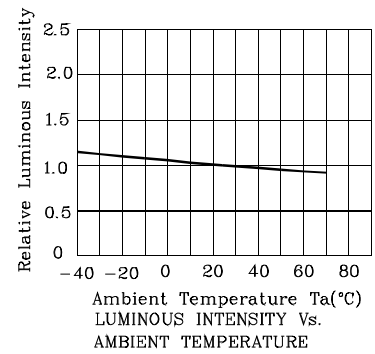
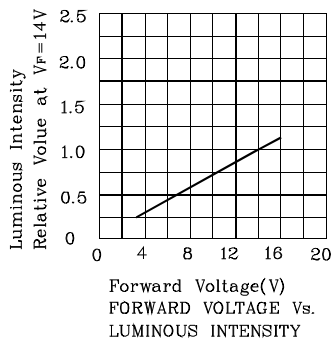
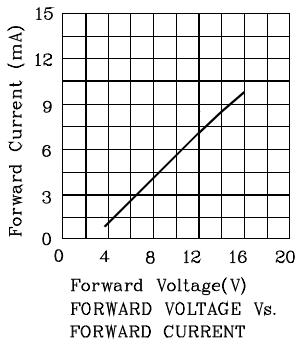
Operating Characteristics ( $T_A=25^\circ\text{C}$ )		FRS (InGaN)	Unit
Forward Voltage (Typ.) ( $I_F=14\text{V}$ )	$V_F$	8.5	mA
Forward Voltage (Max.) ( $I_F=14\text{V}$ )	$V_F$	12	mA
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	50	$\mu\text{A}$
Chromaticity Coordinates (Typ.)	x	0.51	
	y	0.42	

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ( $V_F=14\text{V}$ ) mcd		Viewing Angle 2 $\theta$ 1/2
				min.	typ.	
XNZSFRS52WYSF14V02	Incandescent	InGaN	Water Clear	250*	447*	70°

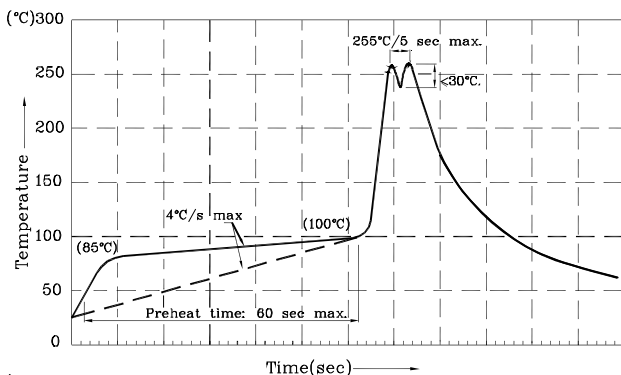
\*Luminous intensity value is in accordance with CIE127-2007 standards.



❖ FRS



Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.

Remarks:

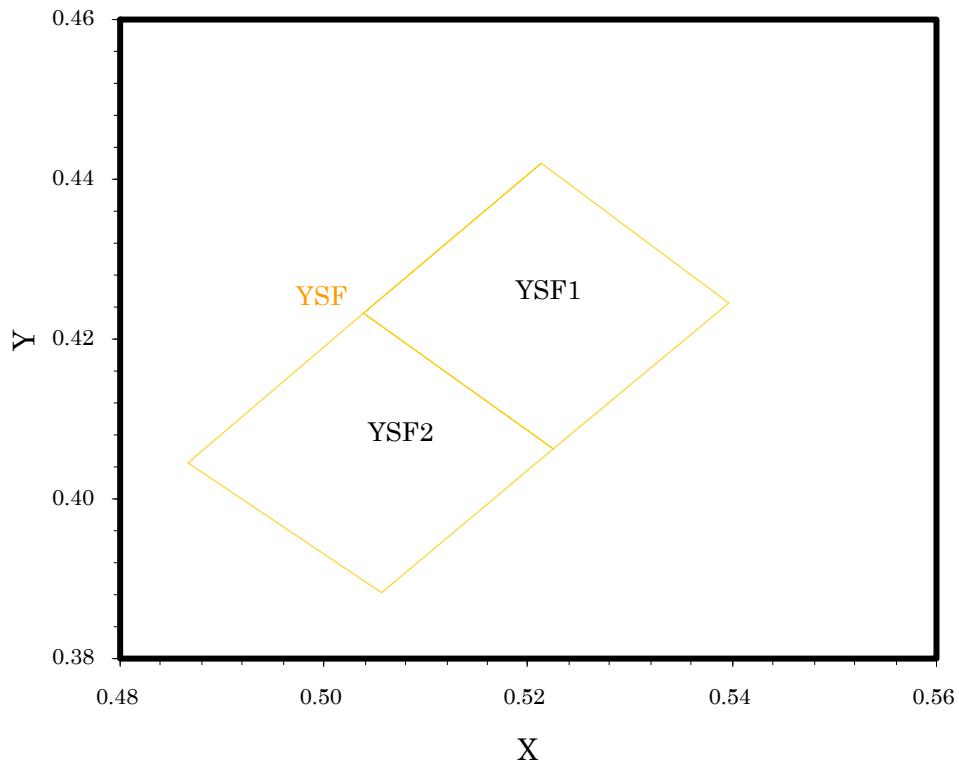
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or chromaticity), the typical accuracy of the sorting process is as follows:

1. Measurement tolerance of the chromaticity coordinates is  $\pm 0.02$ .
2. Luminous Intensity / Luminous Flux:  $\pm 15\%$

Note: Accuracy may depend on the sorting parameters.

XNZSFRS52WYSF14V02

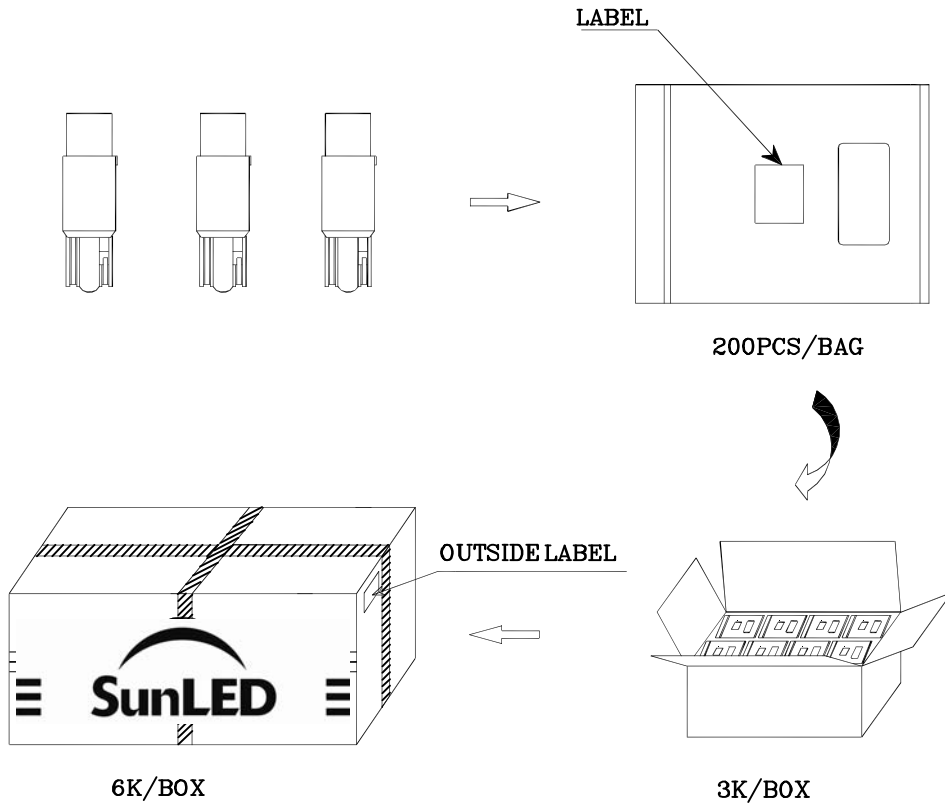
CIE 1931


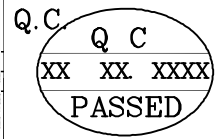



Bin code	x	y	Bin code	x	y
YSF1	0.5212	0.4220	YSF2	0.5038	0.4232
	0.5038	0.4232		0.4866	0.4045
	0.5225	0.4063		0.5055	0.3882
	0.5396	0.4246		0.5225	0.4063
	0.5212	0.4220		0.5038	0.4232

Notes:  
Shipment may contain more than one chromaticity regions.  
Orders for single chromaticity region are generally not accepted.  
Measurement tolerance of the chromaticity coordinates is  $\pm 0.02$ .

**PACKING & LABEL SPECIFICATIONS**



		
P/NO : XNZSxxx52xx02		
QTY : 200 pcs	CODE: XXX	
S/N : XX		
LOT NO:		
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX		
RoHS Compliant		

**TERMS OF USE**

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
2. Contents within this document are subject to improvement and enhancement changes without notice.
3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
5. The contents within this document may not be altered without prior consent by SunLED.
6. Additional technical notes are available at <http://www.SunLEDusa.com/TechnicalNotes.asp>