

**Features**

- High current operation for greater luminous output
- Low Power Consumption and thermal resistance
- Can be used with automatic insertion equipment
- RoHS Compliant



**Benefits:**

- Rugged design allows for easy maintenance
- Robust package for optimum reliability

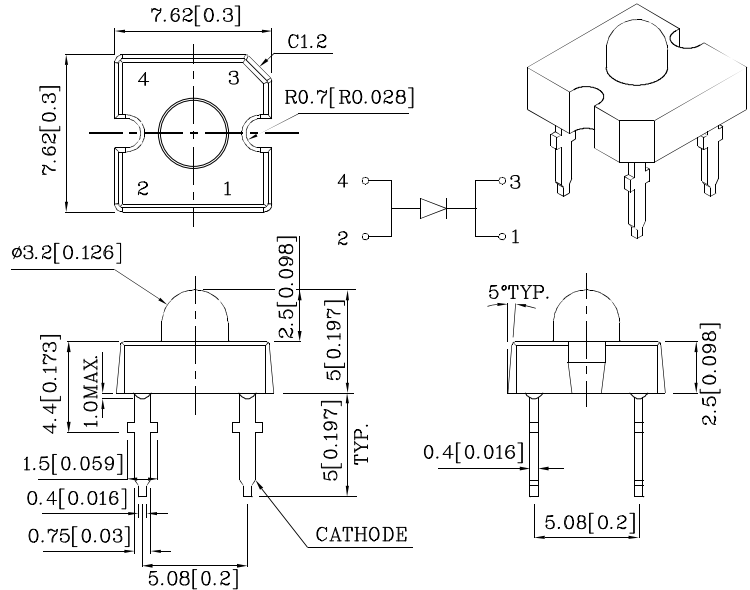
**Typical Applications:**

- Automotive side markers
- Gaming and entertainment lighting
- Signs and road hazard indicators



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

**Package Schematics**



**Notes:**

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

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		FWCA (InGaN)	Unit
Reverse Voltage	V <sub>R</sub>	5	V
DC Forward Current	I <sub>F</sub>	30	mA
Power Dissipation	P <sub>D</sub>	126	mW
Operating Temperature	T <sub>A</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +85	
Electrostatic Discharge Threshold (HBM)		250	V
Lead Solder Temperature [1.5mm Below Seating Plane.][1]		260°C For 5 Seconds	

Operating Characteristics (T <sub>A</sub> =25°C)		FWCA (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =30mA)	V <sub>F</sub>	3.5	V
Forward Voltage (Max.) (I <sub>F</sub> =30mA)	V <sub>F</sub>	4.2	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	50	uA
Chromaticity Coordinates (Typ.)	x	0.31	
	y	0.31	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	100	pF
Thermal Resistance (Typ.)	R <sub>θj-pin</sub>	180	°C/W

1.No Reflow soldering .

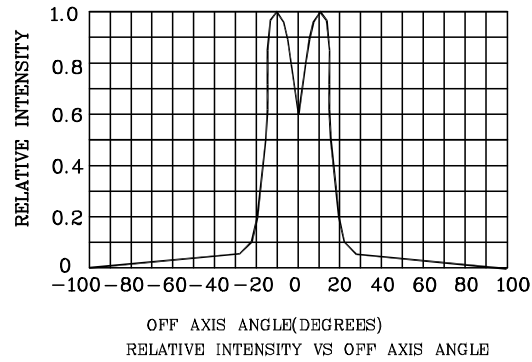
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =30mA) cd		Luminous Flux CIE127-2007* (I <sub>F</sub> =30mA) lm	Viewing Angle 2θ 1/2
				min.	typ.	typ.	
XSFWCA783W	White	InGaN	Water Clear	4	8.8*	7.3*	30°

1.Luminous intensity is measured with an integrating sphere after the device has stabilized.

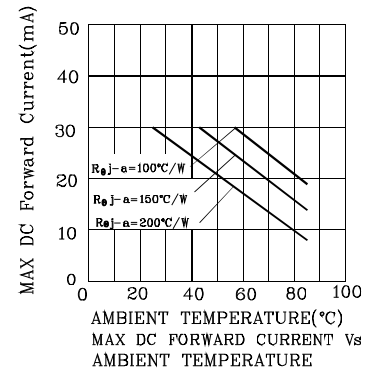
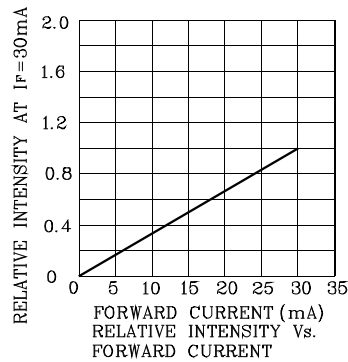
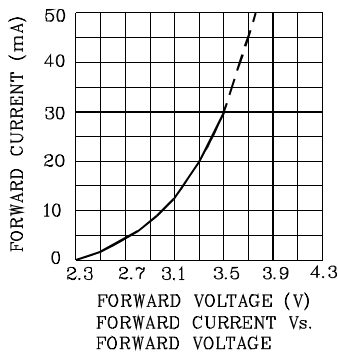
2.θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

3. LEDs are binned according to their Luminous intensity.

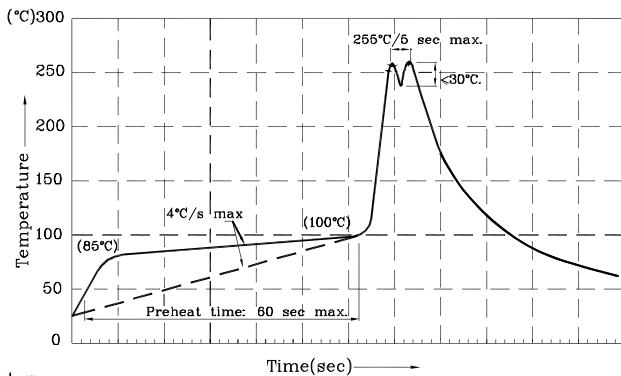
\*Luminous intensity / luminous flux value is in accordance with CIE127-2007 standards.



❖ FWCA



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



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:  $\pm 15\%$
3. Forward Voltage:  $\pm 0.1V$

Note: Accuracy may depend on the sorting parameters.

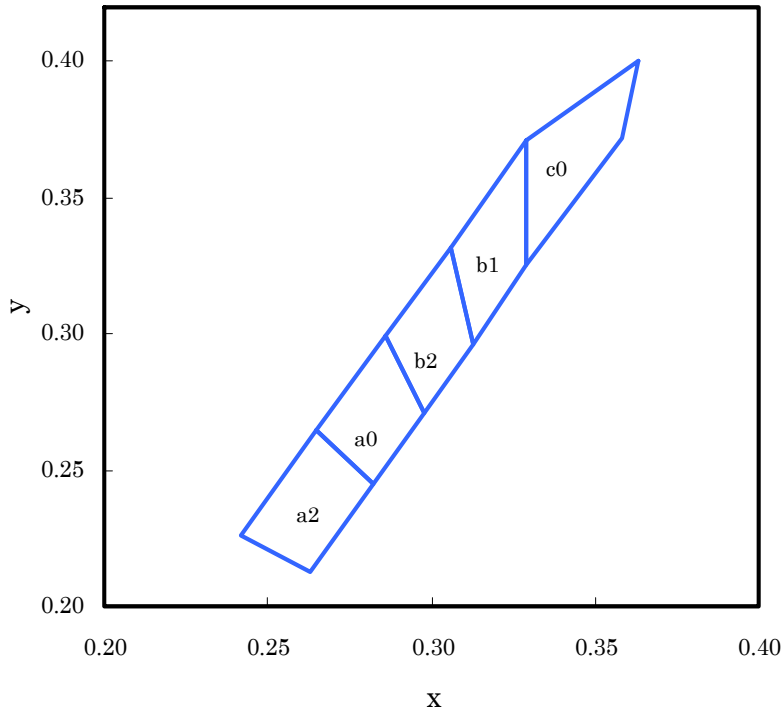
Notes:

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.



XSFWCA783W

White CIE

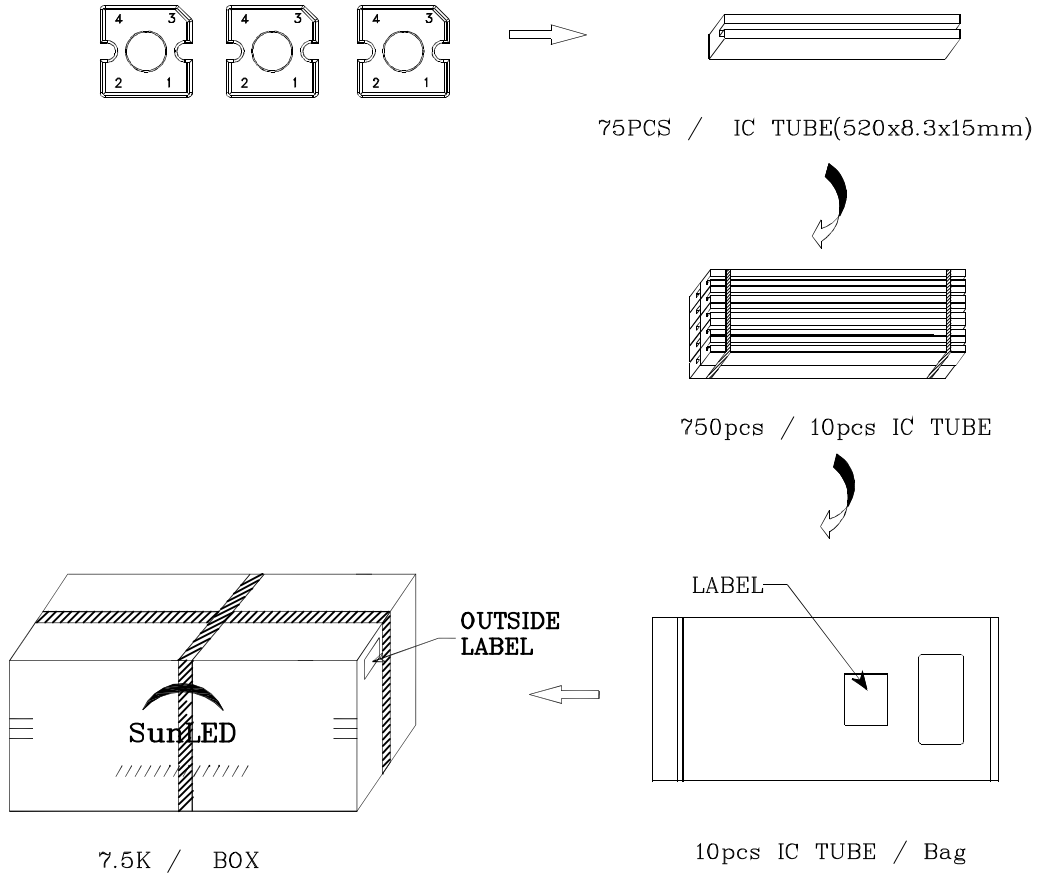



	x	y		x	y		x	y
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

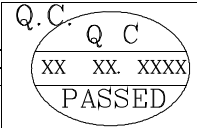

Notes:  
Shipment may contain more than one chromaticity regions.  
Orders for single chromaticity region are generally not accepted.  
Measurement tolerance of the chromaticity coordinates is  $\pm 0.02$ .



**PACKING & LABEL SPECIFICATIONS**





	
P/NO : XSxxx783x	
QTY : 750 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	