## SM1206UV-395-IL

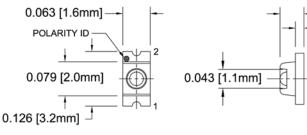
- ♦ Industry Standard 1206 Package
- RoHS Compliant
- UV Emitting LED
- ♦ Water Clear Lens
- ♦ Narrow Viewing Angle
- ♦ Ideal for Curing, Detection, and Medical Applications



Bivar's Surface Mount 1206 UV Inner Lens LED is offered in a standard 1206 foot print and is ideal for any UV applications. The water clear inner lens provides a narrow viewing angle and maximum radiation power output. The miniature package provides long life and reliability making it ideal for industrial curing, hazard detection, medical applications such as instrument sterilization, fluorescent counterfeit watermark detection, and forensic applications. Bivar SM1206 UV-IL LED is packaged in standard tape and reels for pick and place assemblies.

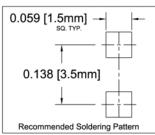
Part Number	Material	Emitted Color	Peak Wavelength λp(nm) TYP.	Lens Appearance	Luminous Intensity (mW) TYP.	Viewing Angle
SM1206UV- 395-IL	InGaN/SiC	ULTRA VIOLET	395 ~ 400	Water Clear	.65	30°

#### **Outline Dimensions**









0.055 [1.4mm]0.020 [0.5mm]

#### **Outline Drawings Notes:**

- 1. All dimensions are in inches [millimeters].
- 2. Standard tolerance: ±0.010" unless otherwise noted.

## \*

#### ↑ CAUTION: EMITS ULTRAVIOLET RADIATION!!

- This UV (ultraviolet) LED during operation radiates intense UV light.
- Do not look directly into the UV light during operation of device. This can be harmful to human body especially to the eyes and skin, even for brief period due to the intense UV light.
- If viewing the UV light is necessary, please use UV filtered glasses to avoid damage by the UV light
- If the UV LED in your product might be viewed directly, please affix a caution label to your product to that effect.







Bivar reserves the right to make changes at any time without notice



## **Absolute Maximum Ratings**

 $T_A = 25^{\circ}C$  unless otherwise noted

Power Dissipation	100 mW	
Forward Current ( DC )	25 mA	
Peak Forward Current <sup>1</sup>	100 mA	
Reverse Voltage	5 V	
Operating Temperature Range	-30 ~ +80°C	
Storage Temperature Range	-40 ~ +85°C	
Lead Soldering Temperature ( 3 mm from the base of the epoxy bulb ) 2	260°C	

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.

2. Solder time less than 5 seconds at temperature extreme.

## **Electrical / Optical Characteristics**

 $T_A = 25^{\circ}C \& I_F = 20 \text{ mA}$  unless otherwise noted

Part Number	Forward Voltage (V) <sup>1</sup>		Recommend Forward Current (mA)		Reverse Current (µA)	Dominant		Luminous Intensity Iv (mW)			Viewing Angle 2 Θ ½ (deg)			
	MIN	TYP	MAX	MIN	TYP	MAX	MAX	MIN	TYP	MAX	MIN	TYP	MAX	TYP
SM1206UV- 395-IL	1	3.4	4.2	1	20	/	10	/	/	/	.1	/	1.2	30

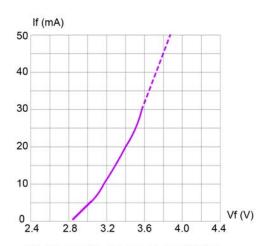
Notes: 1. Tolerance of forward voltage: ±0.05V.

2. Tolerance of dominant wavelength: ±1.0nm.



## **Typical Electrical / Optical Characteristics**

T<sub>A</sub> = 25°C unless otherwise noted



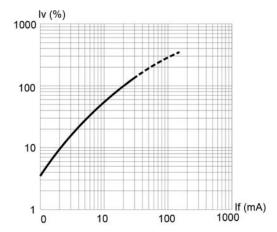
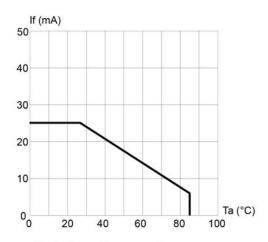


Fig. 1 Forward Current vs. Forward Voltage

Fig. 2 Relative Luminous Intensity vs. Forward Current

10°

20°



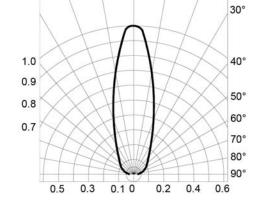
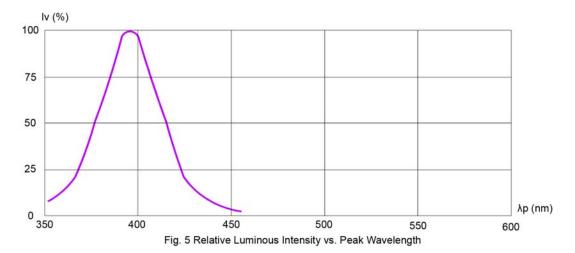


Fig. 3 Forward Current vs. Temperature

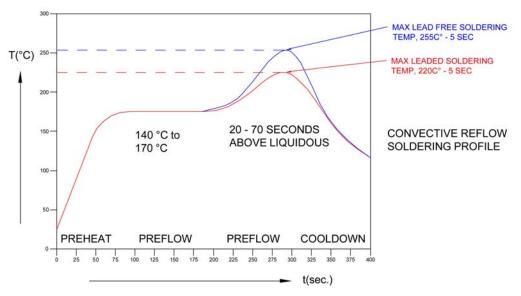
Fig. 4 Directivity Radiation Diagram



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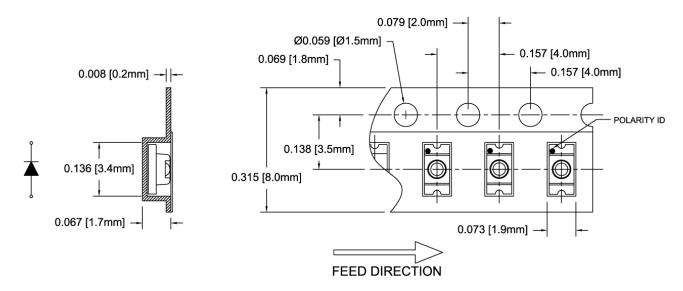
#### **Recommended Soldering Conditions**



Recommended Lead Free Wave Soldering Profile					
Preheat Temperature: 100°C Max.	Peak Temperature: 260°C Max.				
Preheat Time: 20 ~ 50 Seconds Solder Time Above 217°C: 5 Seconds Max.					
Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.					

### **Tape and Reel Dimensions**

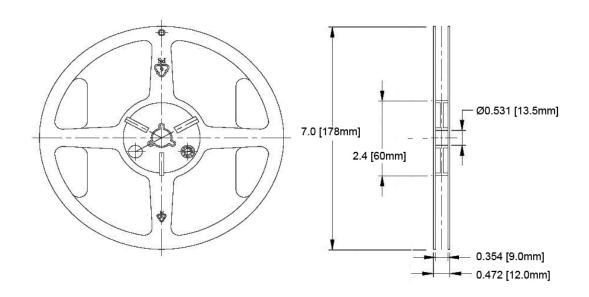
Note: 3000 pcs/Reel



#### Outline Drawings Notes:

- All dimensions are in inches [millimeters].
   Standard tolerance: ±0.010" unless otherwise noted.

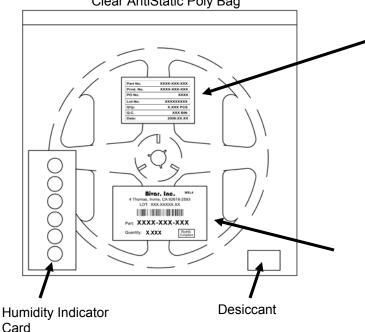




## **Packaging and Labeling Plan**

Note: 1 Reel / Bag

Vacuum and Heat Sealed Clear AntiStatic Poly Bag



#### **Outline Drawings Notes:**

1. All dimensions are in inches [millimeters].

2. Standard tolerance unless otherwise noted: X.XXX ± 0.010"

XXXX-XXX-XXX
XXXX-XXX-XXX
xxxx
XXXXXXXX
X.XXX PCS
XXX BIN
2008.XX.XX

Internal Quality Control

Bivar. Inc.

MSL4

4 Thomas, Irvine, CA 92618-2593 LOT: XXX.XXXXX.XX



Part: XXXX-XXX

Quantity: XXXX

RoHS Compliant

Bivar Standard Packaging Label

# AMEYA360 Components Supply Platform

#### **Authorized Distribution Brand:**

























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