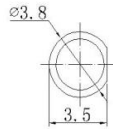
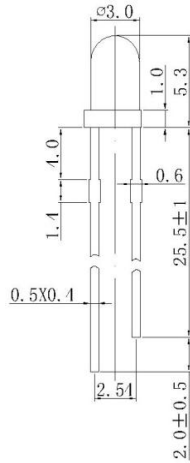


Hubei Kento Electronic Co., Ltd

Specification for LED Product

Model: 3AY4UD09

Package Dimensions (mm)



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ± 0.2 mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5 mm down the leads.
4. Burr around bottom of epoxy may be 0.5 mm max.

Synopsis: 3mm Round Type Yellow Diffused Lens
Yellow LED Lamp

Hubei Kento Electronic Co., Ltd

Model: 3AY4UD09

Typical Electrical & Optical Characteristics (Ta = 25 °C)

	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V _F	I _F = 20 mA	1.4	1.9	2.4	V
Reverse Current	I _R	V _R = 5 V	---	---	1.1	μA
Dominant Wavelength	λ _D	I _F = 20 mA	586	---	590	nm
Luminous Intensity	I _V	I _F = 20 mA	159	210	284	mcd
50% Power Viewing Angle	2θ _½	I _F = 20 mA	---	53	---	deg

■ Absolute Maximum Ratings at (T _a = 25 °C)			
ITEMS	SYMBOL	ABSOLUTE MAXIMUM RATING	UNIT
Forward Current	IF	50	mA
Peak Forward Current	IFP	220	mA
Continuous Forward Current	IL	20	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	95	mW
Operation Temperature	T _{opr}	-40 ~ +80	°C
Storage Temperature	T _{stg}	-40 ~ +80	°C
Lead Soldering Temperature	T _{sol}	Max.260 °C for 5 sec Max.	

IFP Conditions: Pulse Width ≤ 10m sec duty ≤ 1/10

T_{sol} Conditions: 4mm from the base of the epoxy bulb

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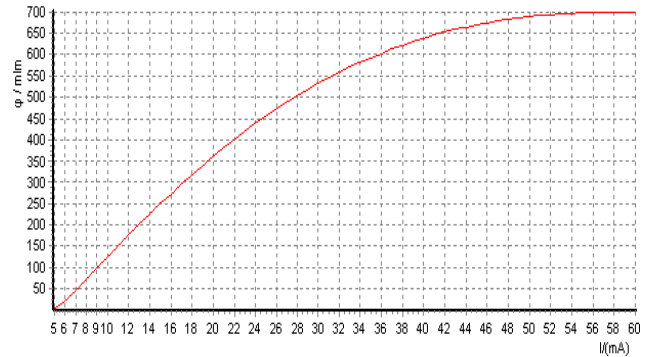
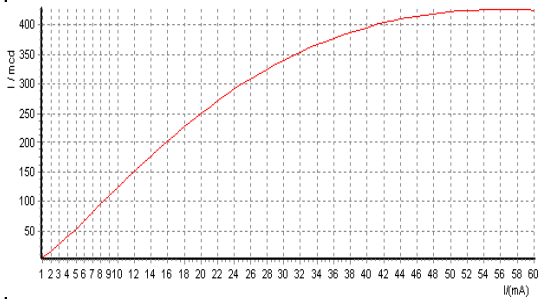
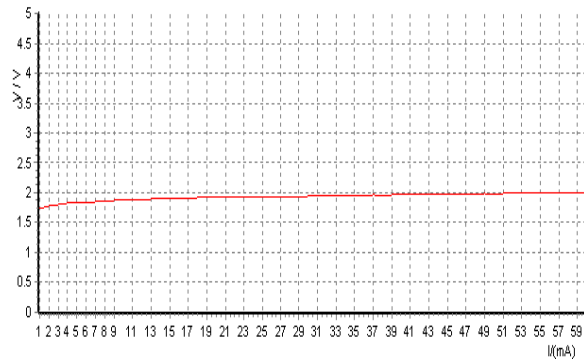
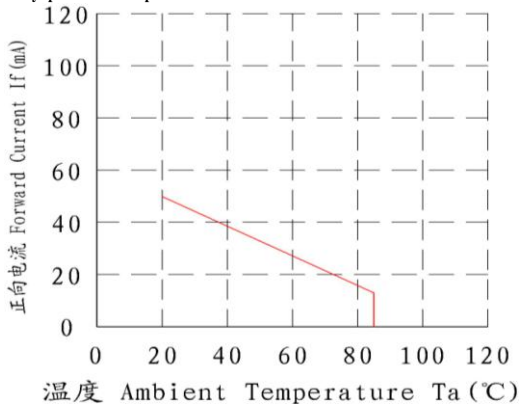
Model: 3AY4UD09					
■ Spatial Distribution					
■ Reliability Performance					
Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	Standard
Life Test	Life Test	T _a = 25 °C ± 5 °C, IF = 20 mA	1000 (hrs)	10 PCS	
Environment Test	Thermal Shock Test	-10 °C ± 5 °C ← → +100 °C ± 5 °C 5 min. 10 sec. 5 min.	100 (cycles)	10 PCS	
	Temperature Cycle Test	-55 °C ± 5 °C ← → +85 °C ± 5 °C 30 min. 5 min. 30 min.	100 (cycles)	10 PCS	
	High Temperature & High Humidity	T _a = 85 °C ± 5 °C RH = 85 % ± 0.5 % RH	240 (hrs)	10 PCS	
	High Temperature				

	Temperature Storage	$T_a = 100^\circ\text{C} \pm 5^\circ\text{C}$	1000 (hrs)	10 PCS	
	Low Temperature Storage	$T_a = -55^\circ\text{C} \pm 5^\circ\text{C}$	1000 (hrs)	10 PCS	
Mechanical Test	Resistance to Soldering Heat	$T_a = 260^\circ\text{C} \pm 5^\circ\text{C}$	5 (sec.)	10 PCS	
	Lead Integrity	负荷 2.5 牛顿 (0.25 千克) $0^\circ \sim 90^\circ \sim 0^\circ$	3 (times)	10 PCS	

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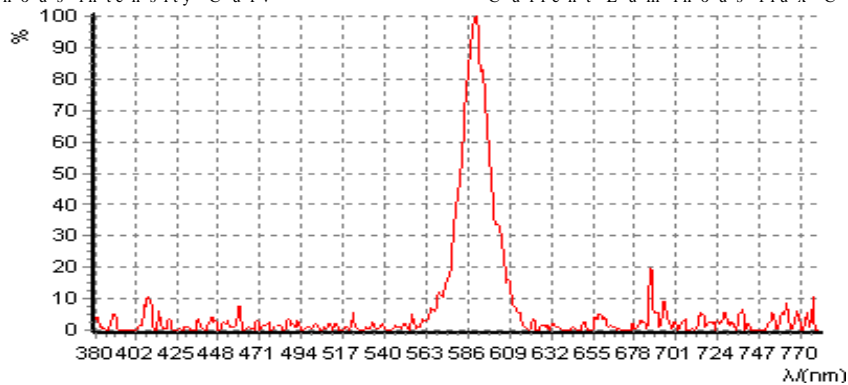
Model: 3AY4UD09

■ Typical Optical/Electrical Characteristics Curves ($T_a = 25^\circ\text{C}$ Unless Otherwise Noted)



Current-Luminous intensity Curve

Current-Luminous flux Curve



M o d e l : 3 A Y 4 U D 0 9

1. A p p l i c a t i o n

- A . O f f i c e e q u i p m e n t & C o m m u n i c a t i o n s e q u i p m e n t & H o m e d e c o r a t i o n
- B . T r a f f i c c o n t r o l & M e d i c a l e q u i p m e n t & A i r t r a n s p o r t

2. S t o r a g e

- A . T e m p e r a t u r e $\leq 30^{\circ}\text{C}$
- B . R e l a t i v e H u m i d i t y : $\leq 70\%$
- C . U s a g e T i m e i n P a c k i n g C o n t a i n e r ≤ 3 m o n t h s
- D . L o n g - T i m e S t o r a g e C o n d i t i o n : D r y i n g C a b i n e t (w i t h d e s i c c a n t o r N i t r o g e n)

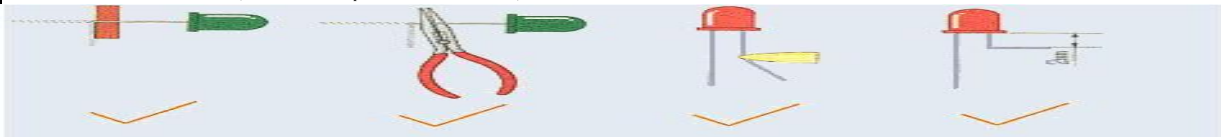
3. W a s h

- A . U s e a l c o h o l t o w i p e L E D L a m p e s , W a s h i n g T i m e ≤ 3 m i n u t e s (a t n o r m a l t e m p e r a t u r e)
- B . N o t i c e : B e c a r e f u l a b o u t w a s h i n g c o l l o i d b y c h e m i c a l g o o d s . S u c h a s :

4. P i n s F i t t i n g

- (1) M u s t b e 2 m m f r o m t h e c o l l o i d t o b e n d t h e s t e n t .
- (2) S t e n t f o r m i n g m u s t b e d o n e b y a f i x t u r e o r b y a p r o f e s s i o n a l .
- (3) S u p p o r t m u s t b e c o m p l e t e d b e f o r e w e l d i n g .
- (4) S u p p o r t i s r e q u i r e d t o e n s u r e t h a t t h e p i n a n d s p a c i n g a r e c o n s i s t e n t w i t h t h e c i r c u i t b o a r d
- (5) W e l d i n g m u s t b e c a r r i e d o u t a t n o r m a l t e m p e r a t u r e , a n d w h e n t h e L E D i s n o r m a l l y w e l d e d t o t h e P C B b o a r d , t h e m e c h a n i c a l p r e s s u r e s h o u l d b e a p p l i e d t o t h e L E D p i n a s f a r a s p o s s i b l e . .

B e n d s t e n t ≥ 2 m m (b e t w e e n p i n s & c o l l o i d)



5. S o l d e r i n g

- A . S o l d e r i n g u n d e r 2 m m
- B . A v o i d d i p p i n g a n d s h a k i n g c o l l o i d

Recommended soldering conditions

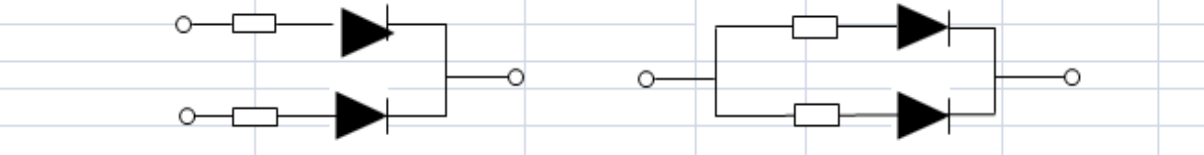
Soldering iron		Wave soldering	
Welding temperature	260°C Max	Preheating temperature	100°C Max
Welding time	5 Sec. Max	Warm-up time	60sec. Max
	(one time only)	Welding temperature	260°C. Max
		Welding time	10sec. Max

Excessive welding temperature and long welding time will lead to led change and deformation

6. D r i v i n g w a y

C i r c u i t m o d e l A (m a n y l e d l a m p s i n p a r a l l e l)

C i r c u i t m o d e l B



7. E l e c t r o s t a t i c P r o t e c t i o n

- A . U s e a n t i - s t a t i c d e v i c e . S u c h a s : s h i e l d a n d g l o v e s
- B . H B M < 1000 V M a c h i n e D i s c h a r g e M o d e l < 100 V