

## L810-36AU

### Infrared LED Lamp

#### <Specifications>

- Chip Material: AlGaAs

- Chip Dimension: 400um x 400um

- Number of Chips: 1pcs

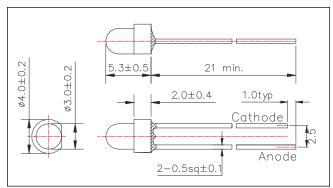
- Peak Wavelength: 810nm typ.

- Package Type: Φ3mm Clear Molding

- Lead Frame: Soldered (Lead Free)

- Lens: Epoxy Resin

### Outer Dimension (Unit:mm)



Absolute Maximum Ratings [Tc=25°C]							
Item	Symbol	Value	Unit				
Power Dissipation	PD	200	mW				
Forward Current	IF	100	mA				
Pulse Forward Current*	IFP	500	mA				
Reverse Voltage	VR	5	V				
Thermal Resistance	Rthja	180	K/W				
Junction Temperature	Tj	120	°C				
Operating Temperature	TOPR	-40 ~ +100	°C				
Storage Temperature	TSTG	-40 ~ +100	°C				
Soldering Temperature**	TSOL	265	°C				

<sup>\*</sup> Duty=1% and Pulse Width=10us.

<sup>\*\*</sup> Soldering condition must be completed within 3 second at 265 °C.

Electro-Optical Characteristics [Tc=25°C]									
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit			
Forward Voltage	VF	IF=50mA		1.6	2.0	V			
	VFP	IFP=500mA		2.6					
Total Radiated Power*	PO	IF=50mA		24		mW			
		IFP=500mA		240					
Radiant Intensity**	IE	IF=50mA		53		mW/sr			
		IFP=500mA		530					
Peak Wavelength	λP	IF=50mA	800		820	nm			
Half Width	Δλ	IF=50mA		30		nm			
Viewing half Angle	θ1/2	IF=50mA		±29		deg			
Rise Time	tr	IF=50mA		20		ns			
Fall Time	tf	IF=50mA		30		ns			

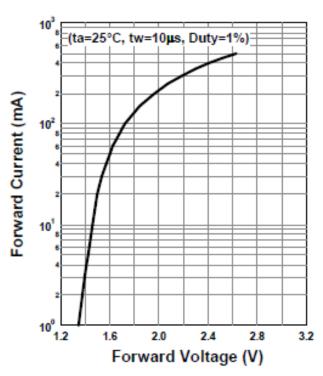
<sup>\*</sup> Measured by S3584-08



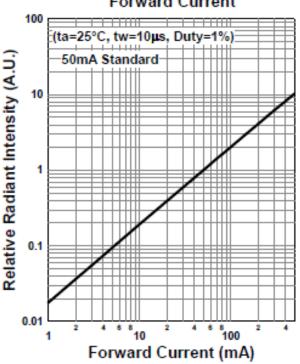
<sup>\*\*</sup> Measured by CIE127-2007 Condition B



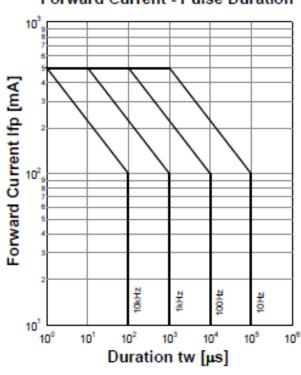
# Forward Current - Forward Voltage



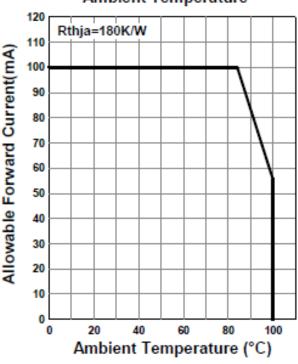
### Relative Radiant Intensity -Forward Current



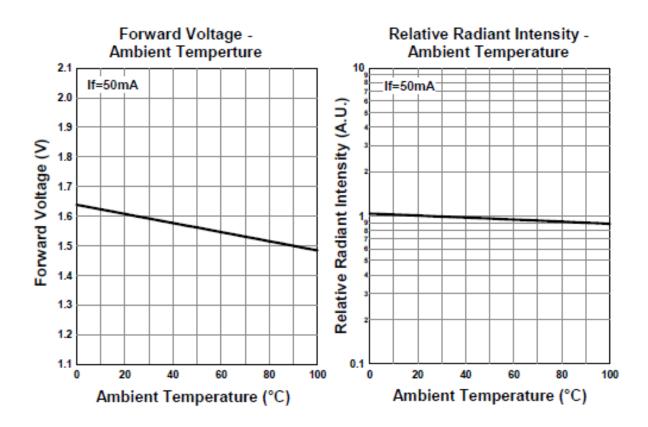
### Forward Current - Pulse Duration

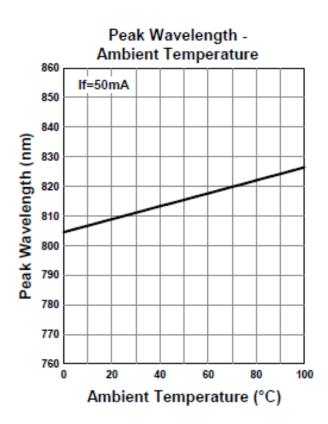


## Allowable Forward Current -Ambient Temperature

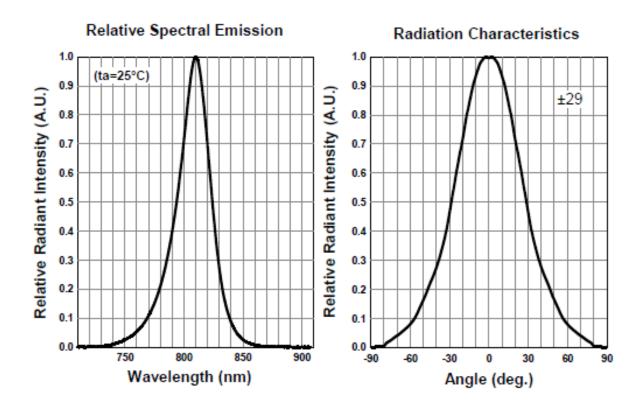


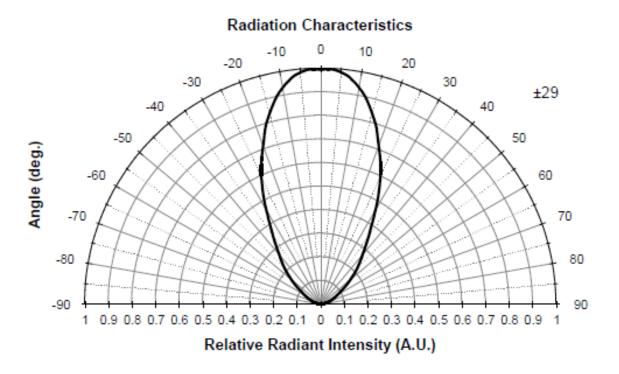














#### **Disclaimer**

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Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

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