

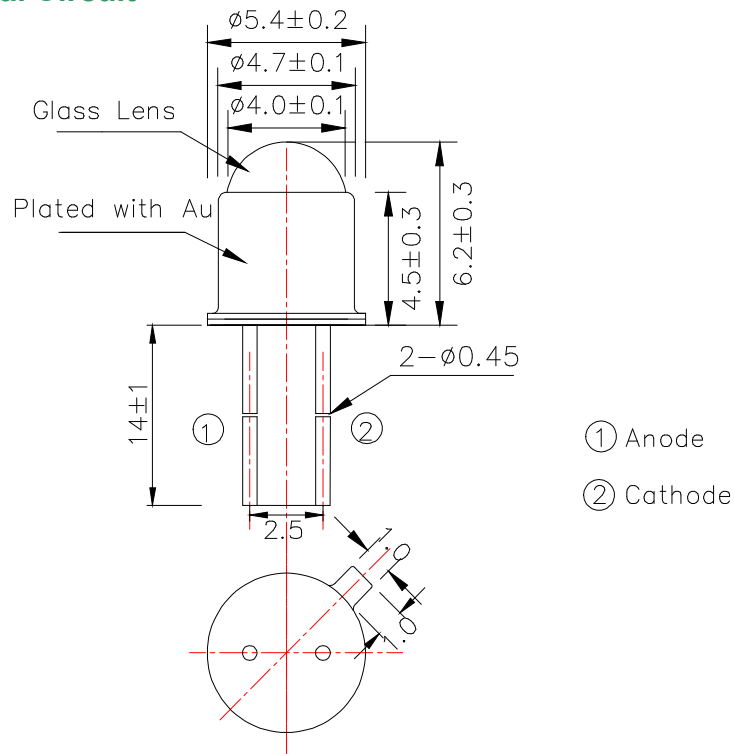


PRELIMINARY

L810-40M32

Stem Type LED Lamp

Outline and Internal Circuit



(Unit : mm)

Features

- Non-hermetic package
- Chip Material : AlGaAs
- Chip Dimension : $400 \mu\text{m} \times 400 \mu\text{m}$
- Number of Chips : 1pce
- Peak Wavelength : 810 nm typ.
- Stem: TO-18 type
- Lens : Glass Ball Lens
- Cap : Gold Plated

Application

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthjs	300	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +100	°C
Storage Temperature	Tstg	-40 ~ +100	°C

‡Pulse Forward Current condition : Duty 1% and Pulse Width=10us.

‡Soldering condition : Refer to technical support information on the website.

Optical and Electrical Characteristics (Tc=25°C)

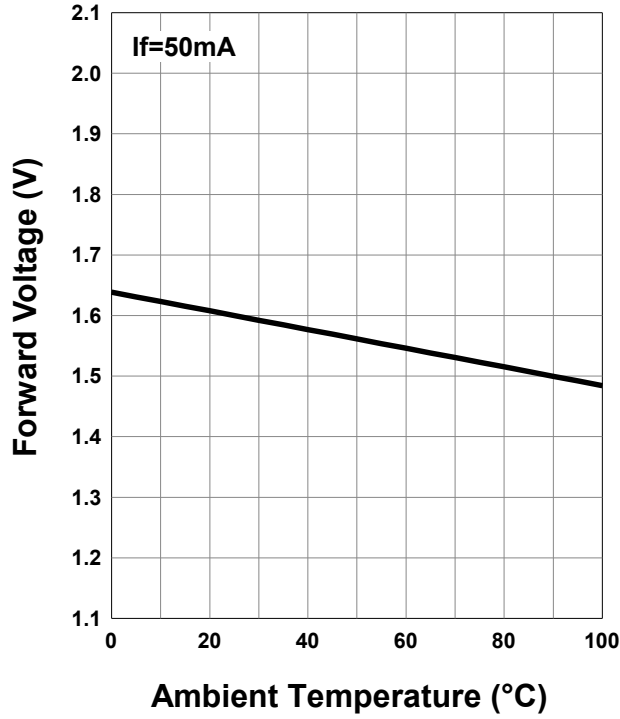
(*: 100% testing, **: reference value)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		1.6	2.0	V	IF=50mA*
	VFP		2.6			IFP=500mA**
Reverse Current	IR			10	uA	VR=5V*
Total Radiated Power	PO	12	17		mW	IF=50mA*
			170			IFP=500mA**
Radiant Intensity	IE		47		mW/sr	IF=50mA**
			460			IFP=500mA**
Peak Wavelength	λ_p	800		820	nm	IF=50mA*
Half Width	$\Delta\lambda$		30		nm	IF=50mA**
Viewing Half Angle	$\theta_{1/2}$		±14		deg.	IF=50mA**
Rise Time	tr		20		ns	IF=50mA**
Fall Time	tf		30		ns	IF=50mA**

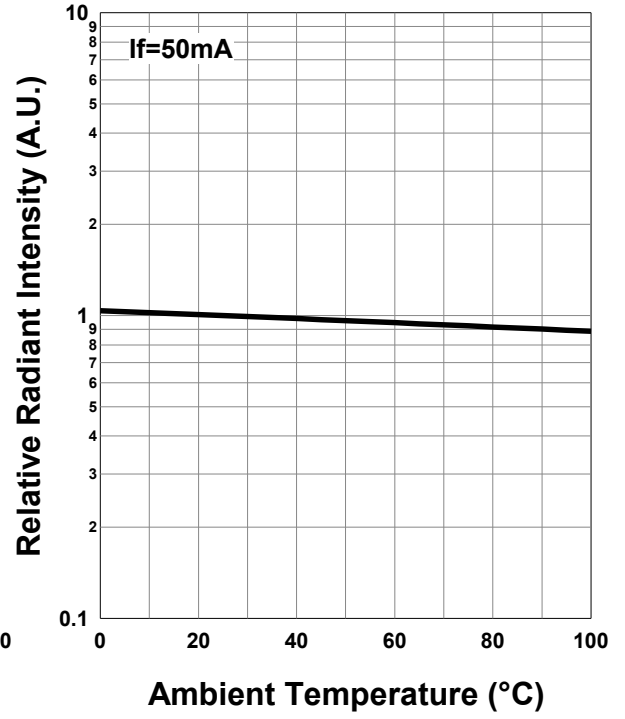
‡ Radiated Power is measured by S3584-08.

‡ Radiant Intensity is measured by CIE127-2007 Condition B.

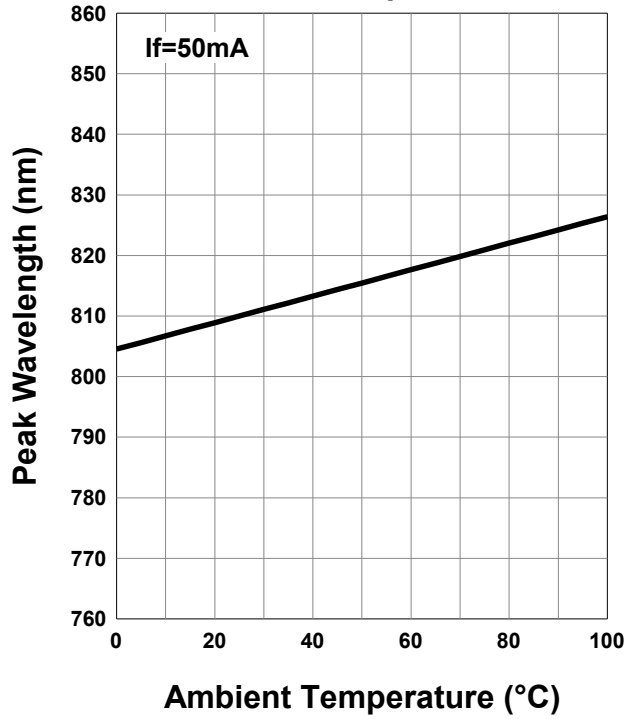
Forward Voltage - Ambient Temperature



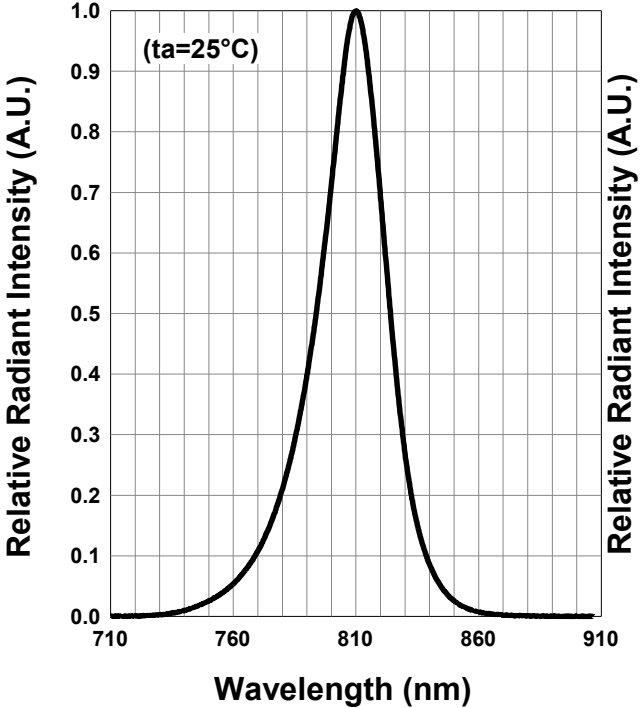
Relative Radiant Intensity - Ambient Temperature



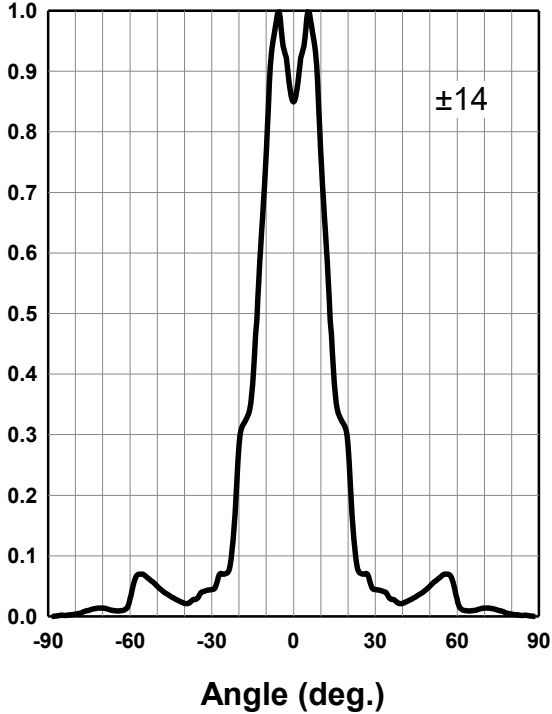
Peak Wavelength - Ambient Temperature



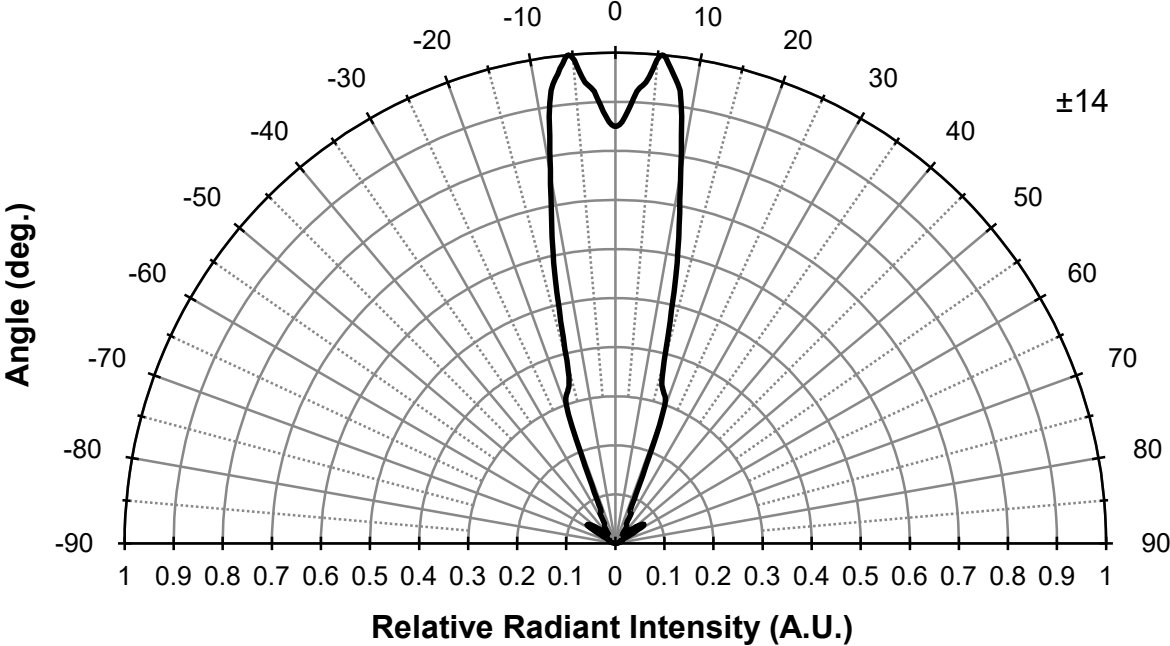
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

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.

Technical Support Information

<https://www.ushio.co.jp/en/led/technology/index.html>



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