L405R-33

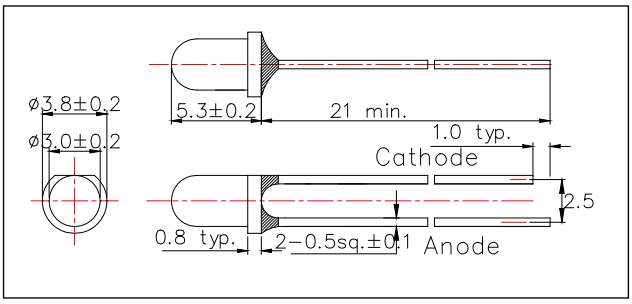
UV LED Lamp with UV Resistant Resin

L405R-33 is an InGaN LED mounted on a lead frame with UV resistant resin.
On forward bias, it emits a band of UV light that peaks 405nm.
This UV series is designed for long life under UV beam.

<Specifications>

1. Product Name: UV LED Lamp
2. Type Number: L405R-33
3. Chip:
   - Chip material: InGaN
   - Peak Wavelength: 405nm typ.
4. Package
   - Type: Φ3mm clear molding
   - Resin Material: Epoxy Resin
   - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25℃]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	200	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	100	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	270	K/W
Junction Temperature	Tj	120	℃
Operating Temperature	TOPR	-40 ~ +100	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature**	TSOL	250	℃

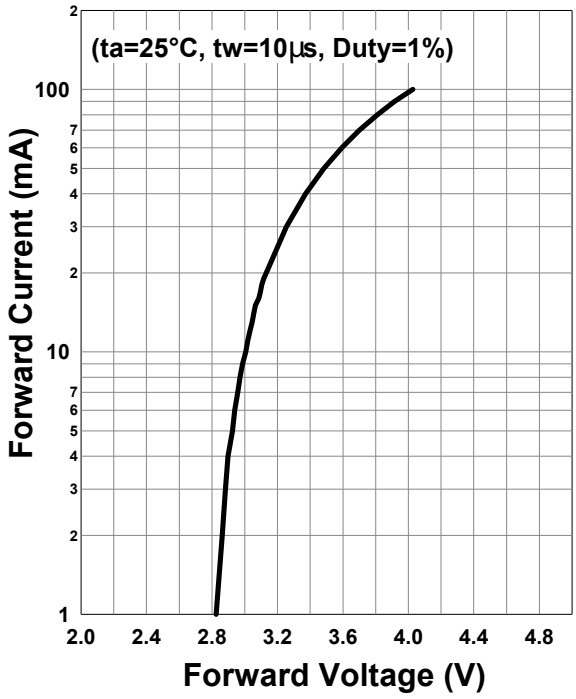
* Duty=1% and Pulse Width=10μs
** Soldering condition must be completed within 5 second at 250℃.

Electro-Optical Characteristics [Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		3.1	4.0	V
	VFP	IFP=100mA		4.0		
Radiated Power*	PO	IF=20mA		26		mW
		IFP=100mA		110		
Peak Wavelength	λP	IF=20mA	395	405	415	nm
Half Width	Δλ	IF=20mA		13		nm
Viewing Half Angle	θ1/2	IF=20mA		±13		deg
Rise Time	Tr	IF=20mA		30		ns
Fall Time	tf	IF=20mA		30		ns

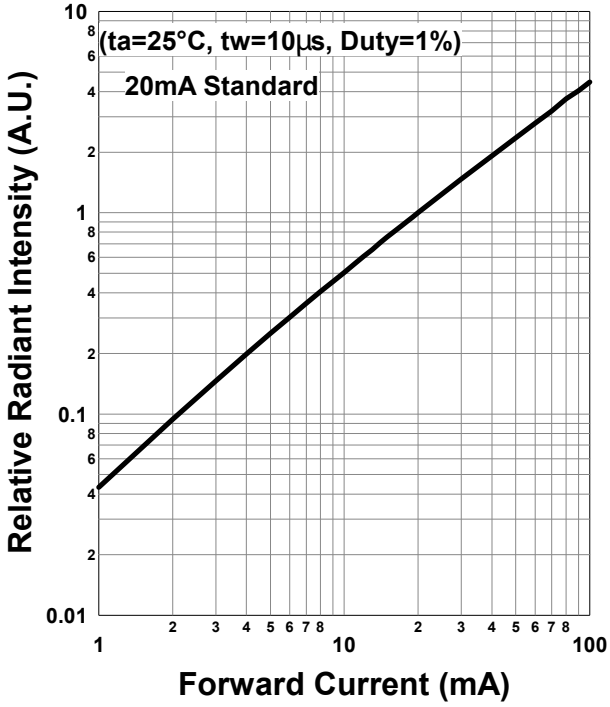
* Measured by S3584-08

RoHS Compliant

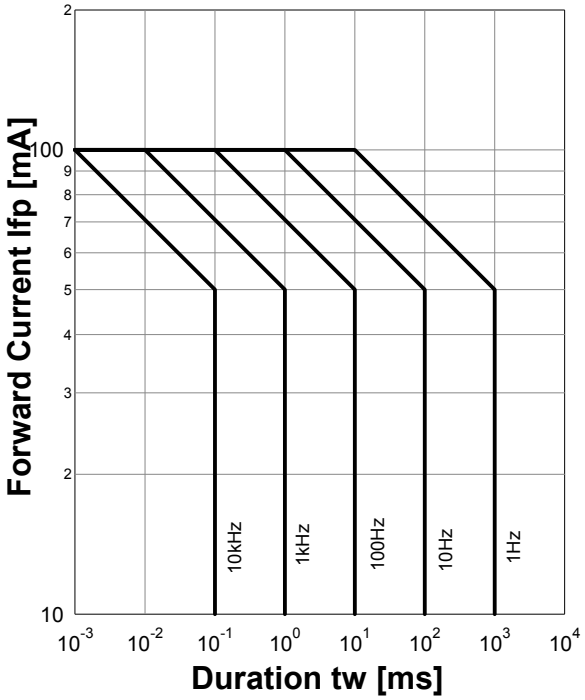
Forward Curent - Forward Voltage



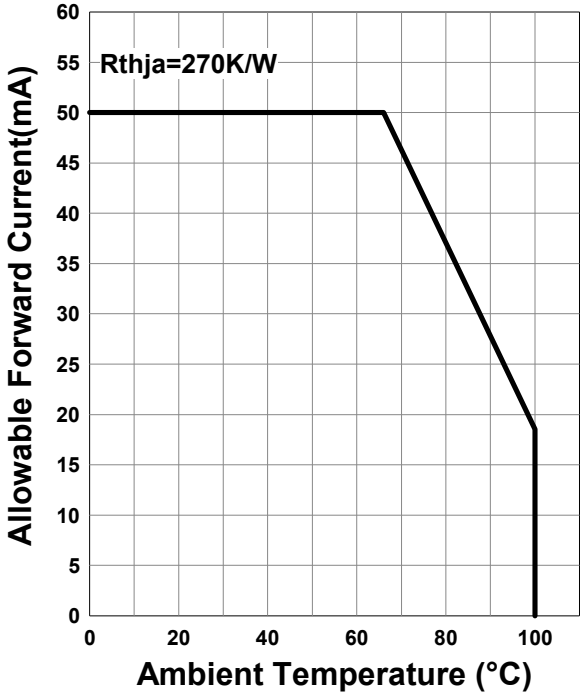
Relative Radiant Intensity - Forward Current



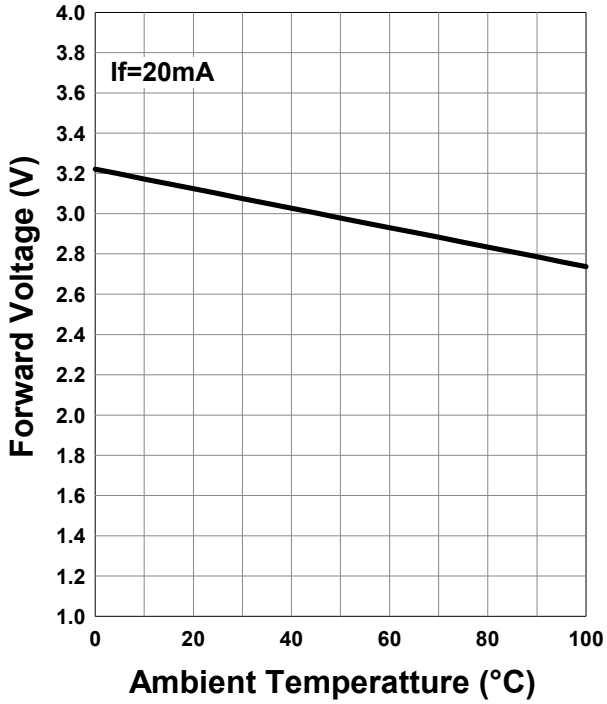
Forward Current - Pulse Duration



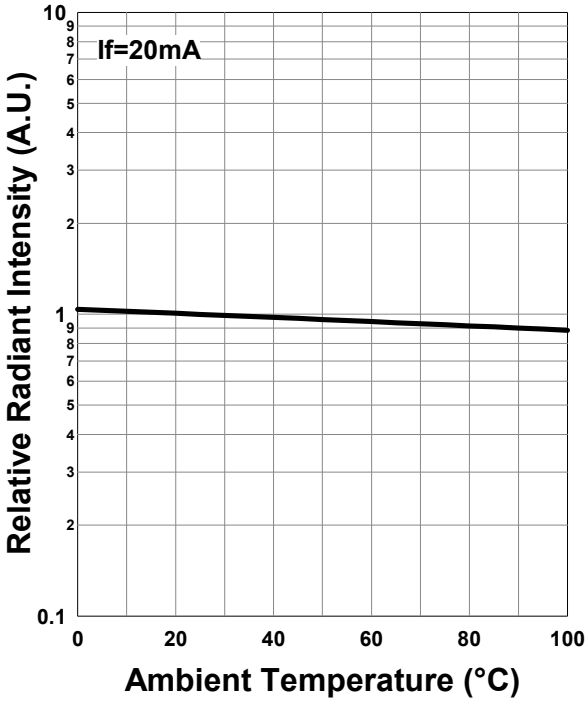
Allowable Forward Current - Ambient Temperature



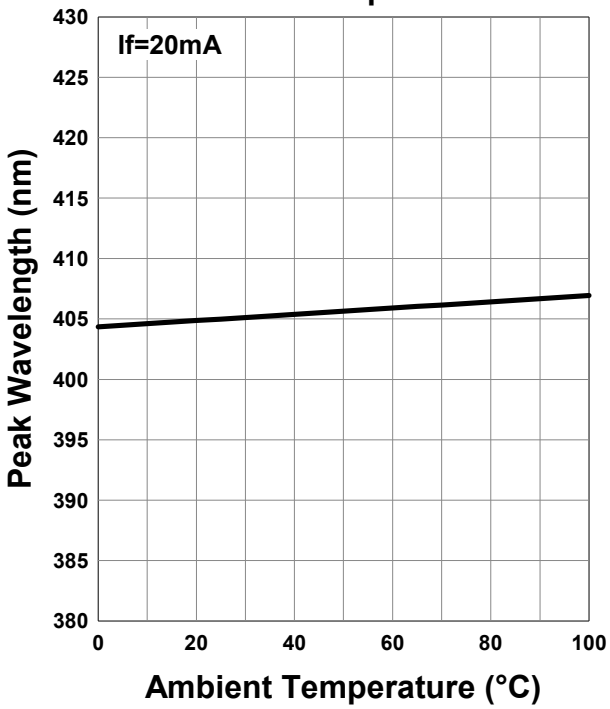
Forward Voltage - Ambient Temperture

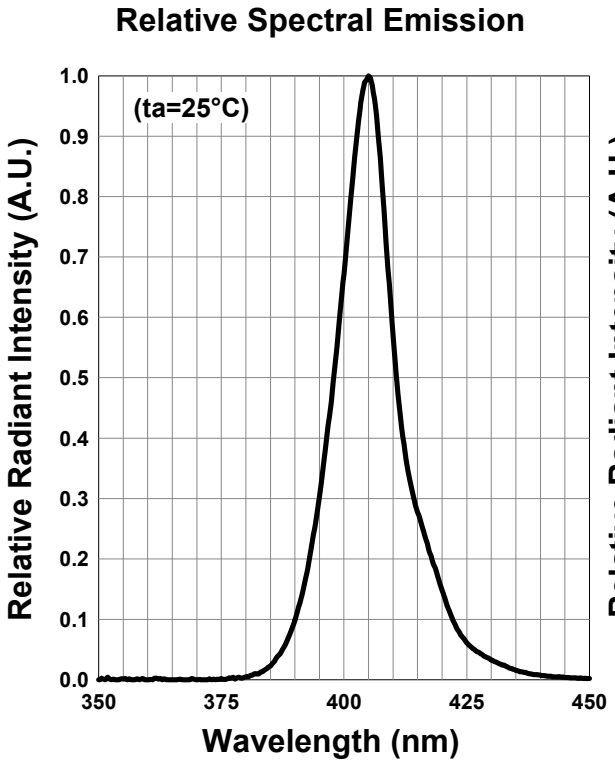


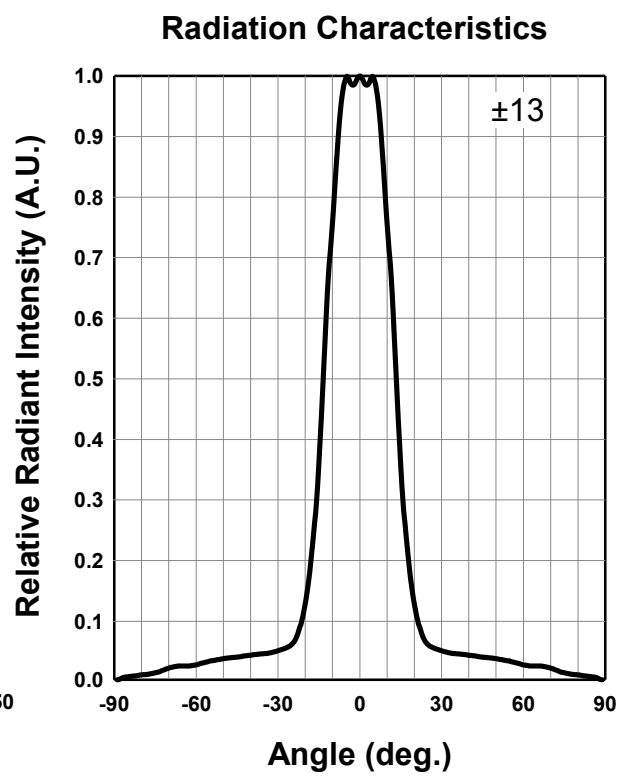
Relative Radiant Intensity - Ambient Temperature

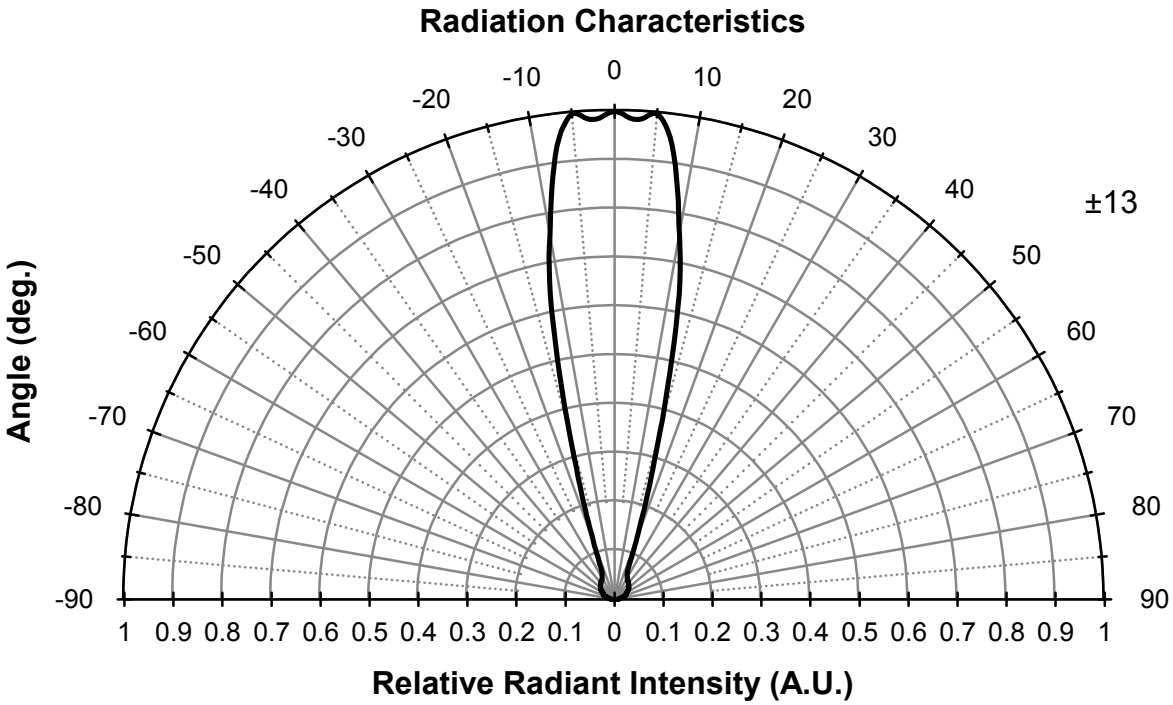


Peak Wavelength - Ambient Temperature




Relative Spectral Emission
(ta=25°C)
Relative Radiant Intensity (A.U.)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
350
375
400
425
450
Wavelength (nm)


Radiation Characteristics
±13
Relative Radiant Intensity (A.U.)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-90
-60
-30
0
30
60
90
Angle (deg.)


Radiation Characteristics
±13
Angle (deg.)
0
-10
10
-20
20
-30
30
-40
40
-50
50
-60
60
-70
70
-80
80
-90
90
1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Relative Radiant Intensity (A.U.)

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.

2014.05