L470-33

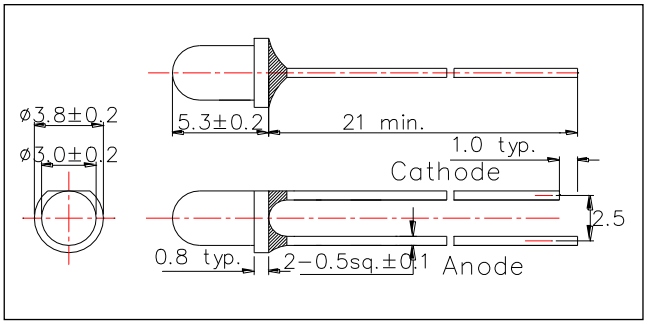
Super Bright Blue LED

L470-33 is an InGaN LED mounted on a lead frame with a clear epoxy lens.
On forward bias, it emits a band of visible light that peaks 465nm.

<Specifications>

1. Product Name: Blue LED Lamp
2. Type Number: L470-33
3. Chip:
   - Chip material: InGaN
   - Peak Wavelength: 465nm 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	180	mW
Forward Current	IF	50	mA
Pulse Forward Current*	IFP	200	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	100	℃
Thermal Resistance**	Rthja	270	K/W
Operating Temperature	TOPR	-40 ~ +85	℃
Storage Temperature	TSTG	-40 ~ +100	℃
Soldering Temperature***	TSOL	265	℃

* Duty=1% and Pulse Width=10us.

** Junction - ambient, leads 7mm, soldered on PCB

*** Soldering condition must be completed within 3 second at 265℃.

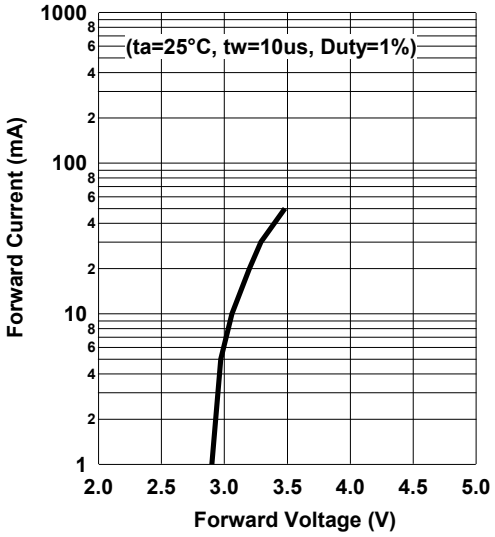
Electro-Optical Characteristics [Ta=25℃]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		3.3	4.0	V
Reverse Current	IR	VR=5V			10	uA
Total Radiated Power*	PO	IF=20mA		20		mW
Radiant Intensity**	IE	IF=20mA		80		mW/sr
Brightness**	IV	IF=20mA		4500		mcd
Peak Wavelength	λP	IF=20mA	455	465	475	nm
Half Width	Δλ	IF=20mA		25		nm
Viewing Half Angle	θ1/2	IF=20mA		±12		deg

* Measured by S3584-08

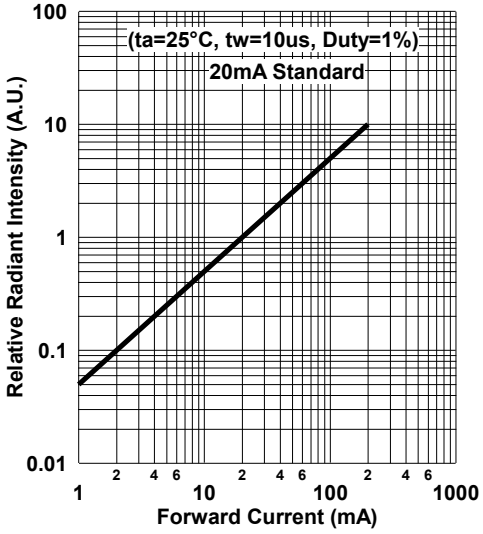
** Measured by Tektronix J-16

RoHS Compliant

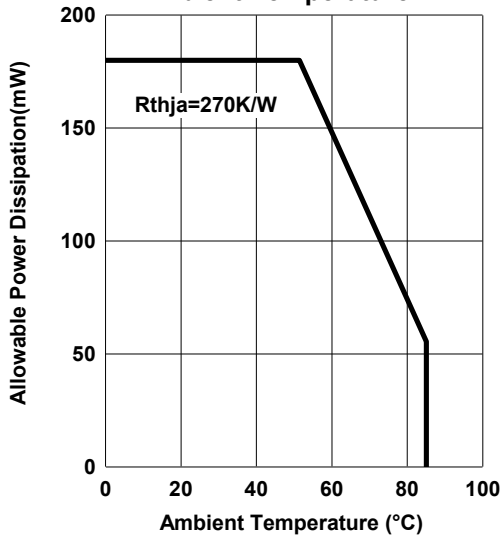
Forward Curent - Forward Voltage



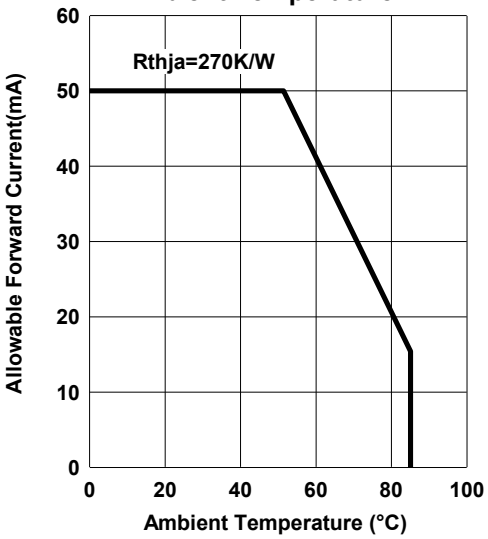
Relative Radiant Intensity - Forward Current



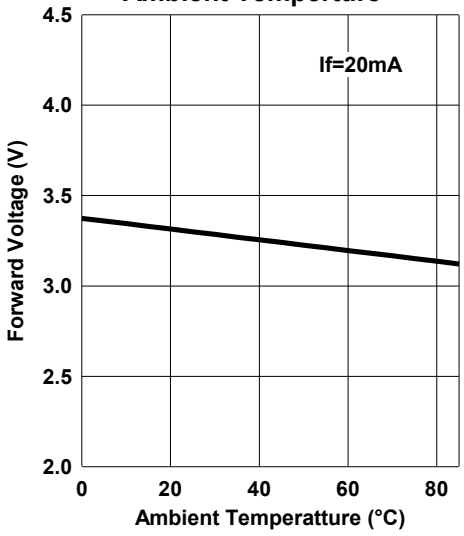
Allowable Power Dissipation - Ambient Temperature



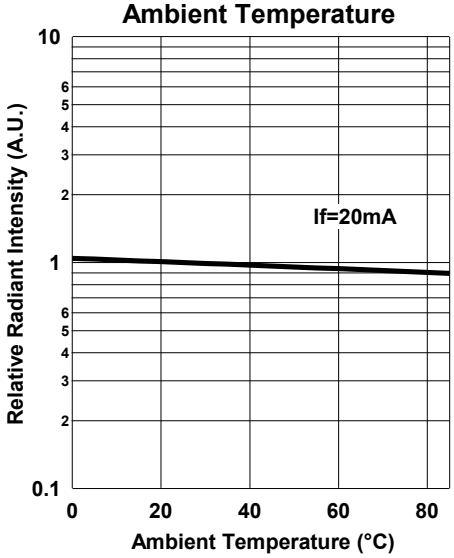
Allowable Forward Current - Ambient Temperature

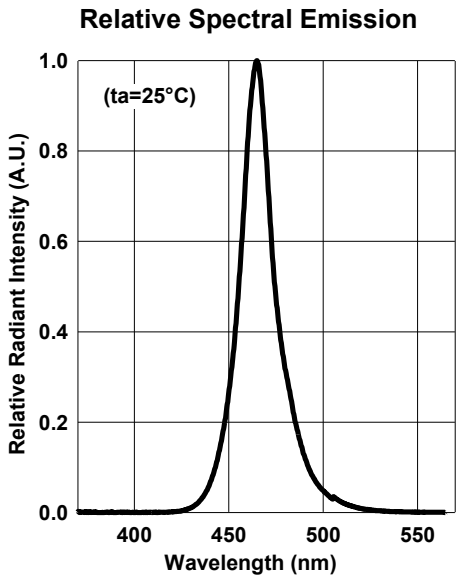


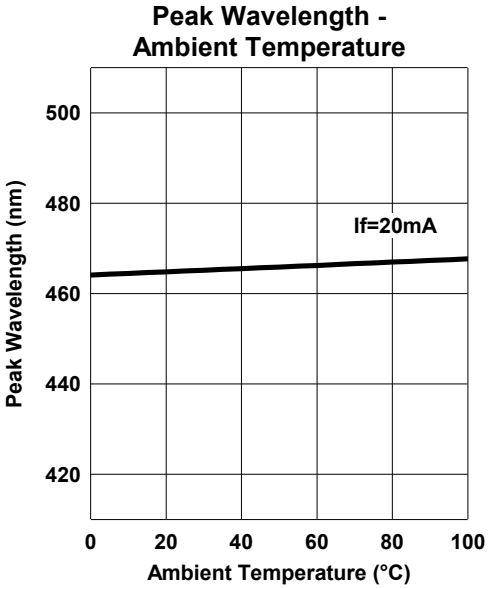
Forward Voltage - Ambient Temperture

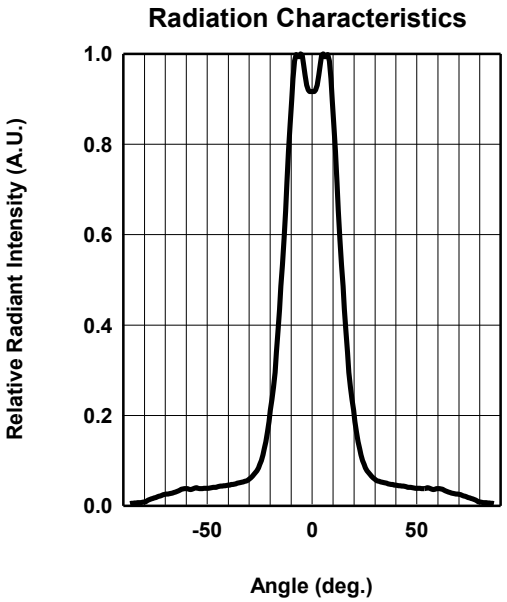


Relative Radiant Intensity - Ambient Temperature




Relative Spectral Emission
(ta=25°C)
Relative Radiant Intensity (A.U.)
1.0
0.8
0.6
0.4
0.2
0.0
400
450
500
550
Wavelength (nm)


Peak Wavelength -
Ambient Temperature
If=20mA
Peak Wavelength (nm)
500
480
460
440
420
0
20
40
60
80
100
Ambient Temperature (°C)


Radiation Characteristics
Relative Radiant Intensity (A.U.)
1.0
0.8
0.6
0.4
0.2
0.0
-50
0
50
Angle (deg.)