

L450-30M32

High Beam Blue LED

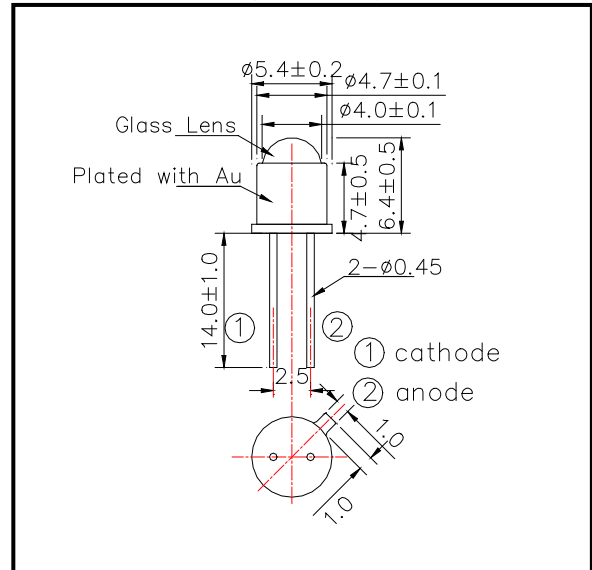
L450-30M32 is an InGaN LED mounted on TO-18 stem with ball glass lens, being designed for sensing devices.

On forward bias it emits a spectral band of radiation, which peaks at 450nm

◆ Specifications

1) Product Name	LED Lamp
2) Type No.	L450-30M32
3) Chip	
(1) Chip Material	InGaN
(2) Chip dimension	300um*300um
(2) Peak Wavelength	450nm typ.
4) Package	
(1) Type	TO-18 stem
(2) Lens	Ball Glass Lens
(3) Cap	Gold plated

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	200	mW	T _a =25°C
Forward Current	I _F	50	mA	T _a =25°C
Pulse Forward Current	I _{FP}	100	mA	T _a =25°C
Reverse Voltage	V _R	5	V	T _a =25°C
Thermal Resistance	R _{thja}	180	K/W	
Junction Temperature	T _j	120	°C	
Operating Temperature	T _{OPR}	-40 ~ +100	°C	
Storage Temperature	T _{STG}	-40 ~ +100	°C	
Soldering Temperature	T _{SOL}	250	°C	

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

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C.

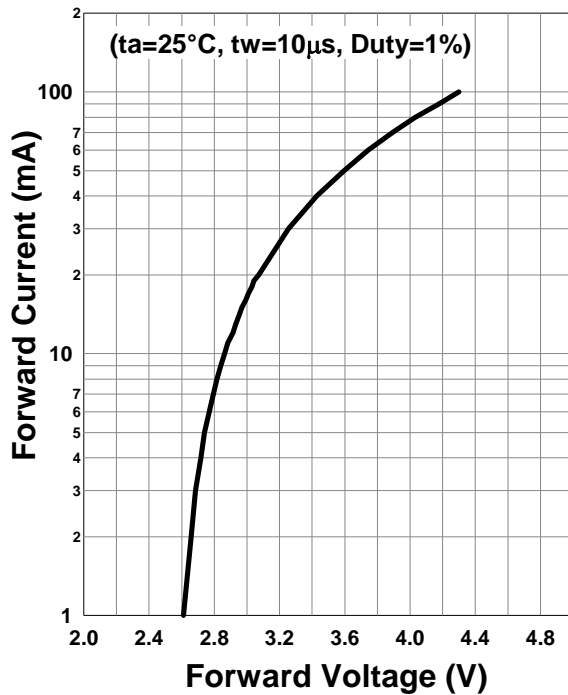
◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =20mA		3.0	4.0	V
		I _F =100mA		4.3		
Radiated Power	P _O	I _F =20mA		13		mW
		I _F =100mA		49		
Radiant Intensity	I _E	I _F =20mA		21		mW/sr
		I _F =100mA		80		
Luminous Flux	Φ _v	I _F =20mA		0.4		lm
Peak Wavelength	λ _P	I _F =20mA	440	450	460	nm
Half Width	Δλ	I _F =20mA		20		nm
Wavelength(dominant)	λ _D	I _F =20mA		455		nm
Viewing Half Angle	θ _{1/2}	I _F =20mA		±12		deg.
Rise Time	t _r	I _F =20mA		40		ns
Fall Time	t _f	I _F =20mA		40		ns

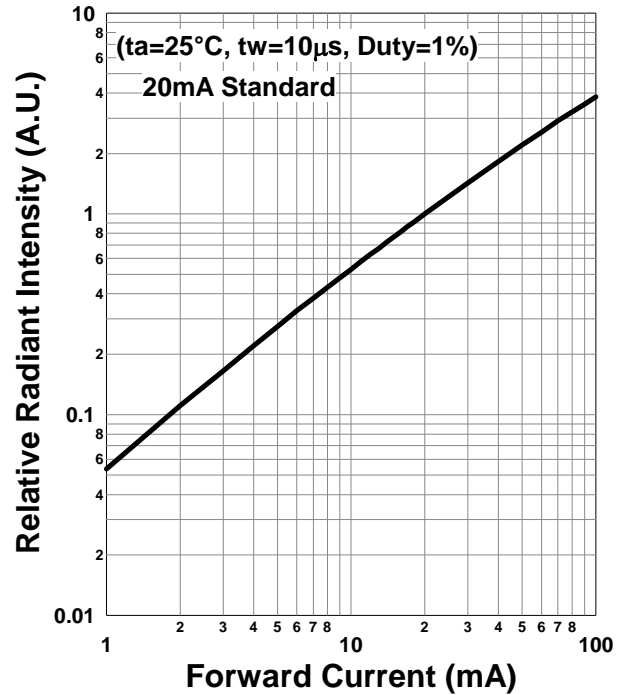
‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by CIE17-2007 Condition B.

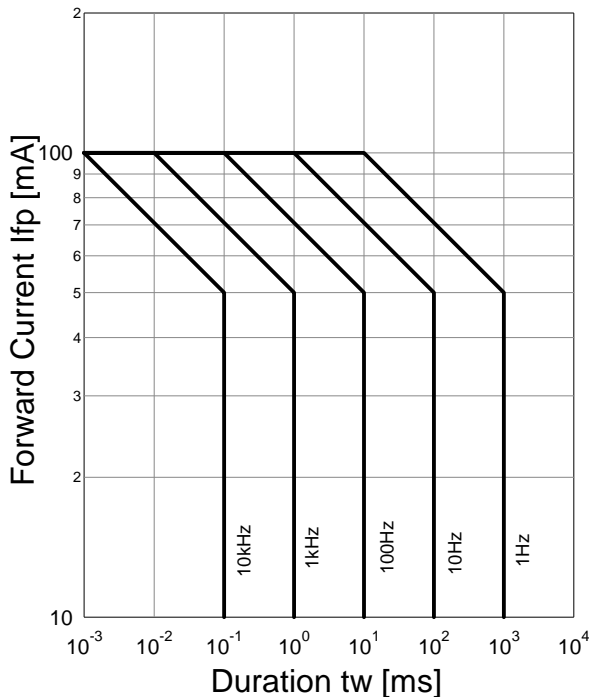
Forward Current - Forward Voltage



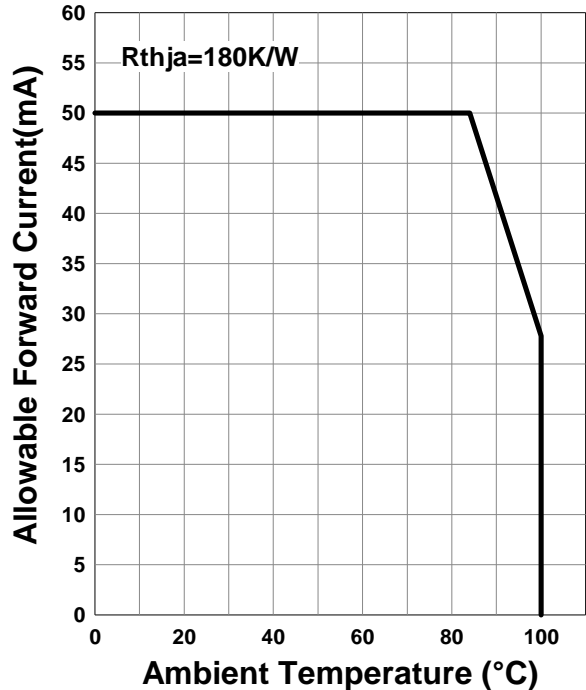
Relative Radiant Intensity - Forward Current



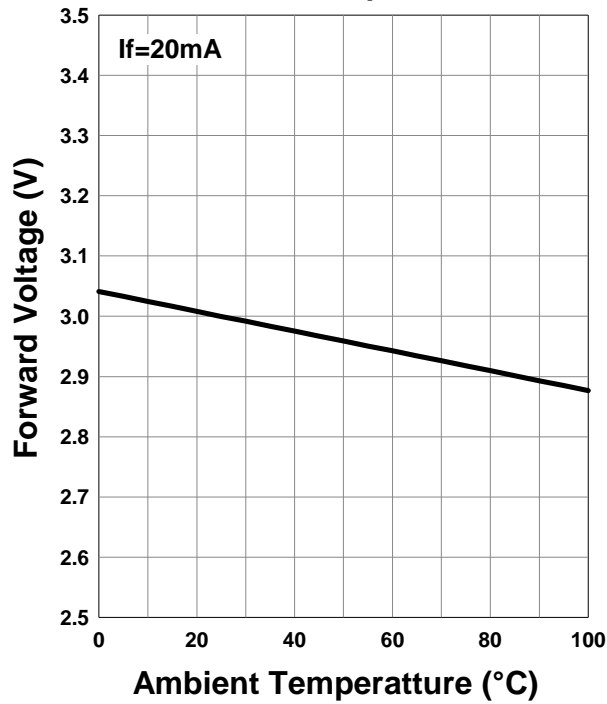
Forward Current - Pulse Duration



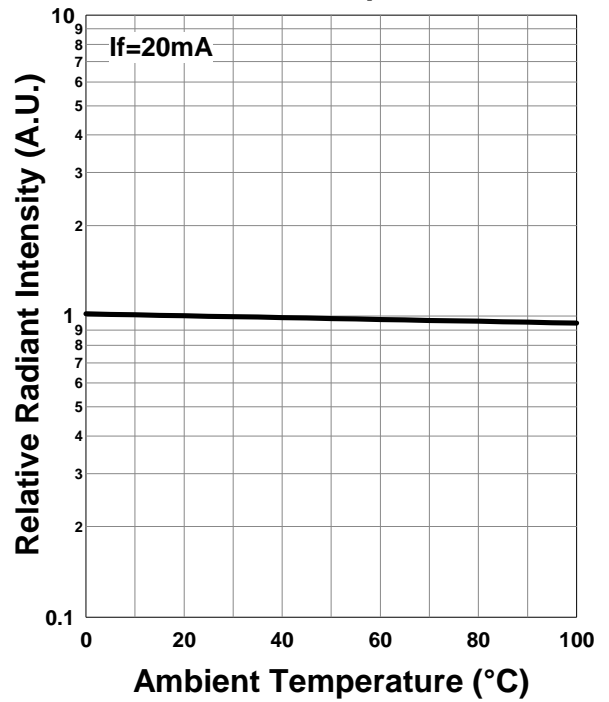
Allowable Forward Current - Ambient Temperature



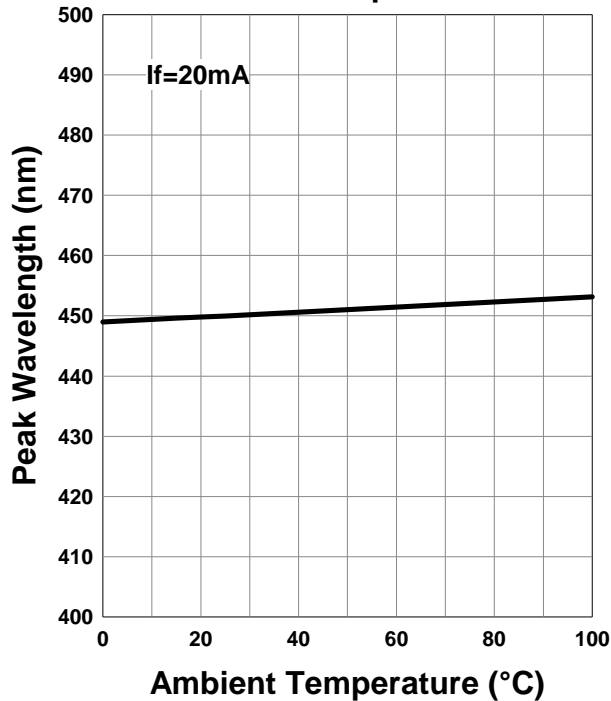
Forward Voltage - Ambient Temperature



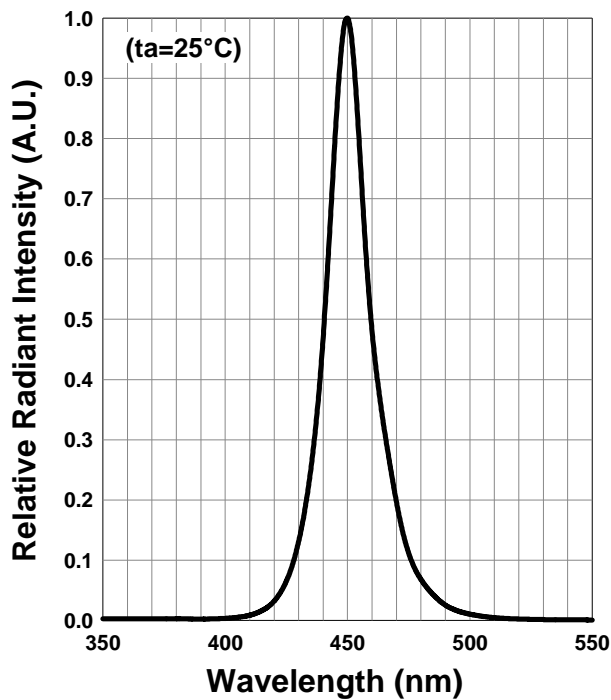
Relative Radiant Intensity - Ambient Temperature



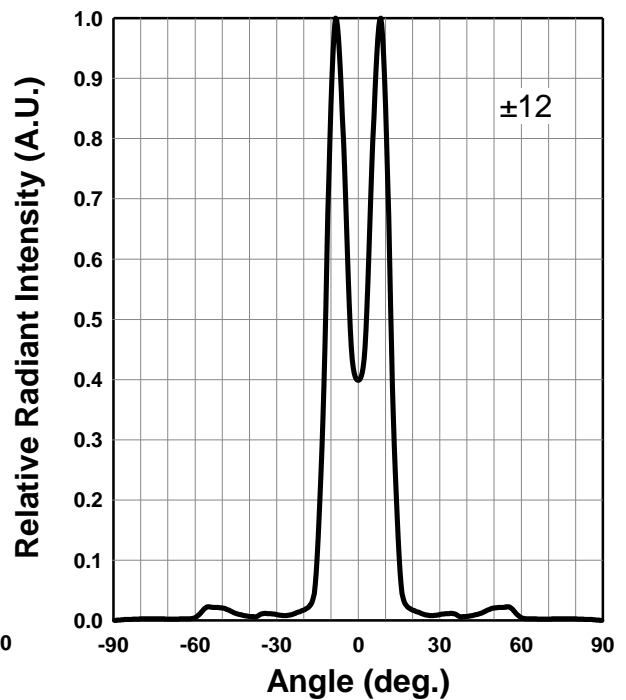
Peak Wavelength - Ambient Temperature



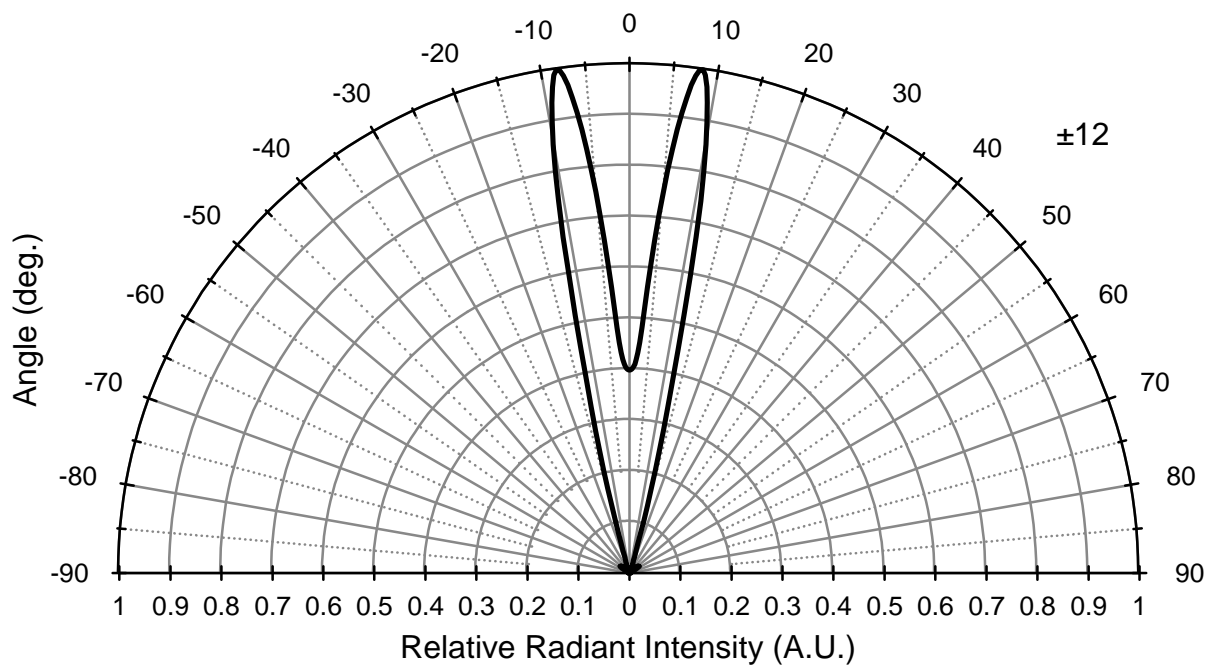
Relative Spectral Emission



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.

2014.02