

L1450-35M32

Stem type LED with high output power

L1450-35M32 is an InGaAsP/InP LED mounted on TO-18 stem and hermetically sealed with spherical glass ball lens being designed for high beam uses.

On forward bias it emits a spectral band of radiation, which peaks at 1450nm.

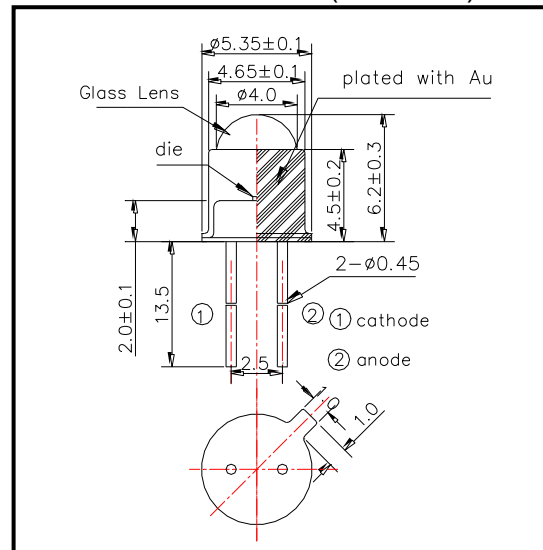
◆Features

- 1) High Power Beam
- 2) High Reliability

◆Specifications

- 1) Product Name LED Lamp
- 2) Type No. L1450-35M32
- 3) Chip
 - (1) Chip Material InGaAsP/InP
 - (2) Chip dimension 300um*300um
 - (2) Peak Wavelength 1450nm typ.
- 4) Package
 - (1) Type TO-18 stem
 - (2) Lens Spherical Glass Lens
 - (3) Cap Gold plated

◆Outer dimension (Unit: mm)



◆Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	130	mW
Forward Current	IF	100	mA
Pulse Forward Current	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	330	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature	TSOL	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

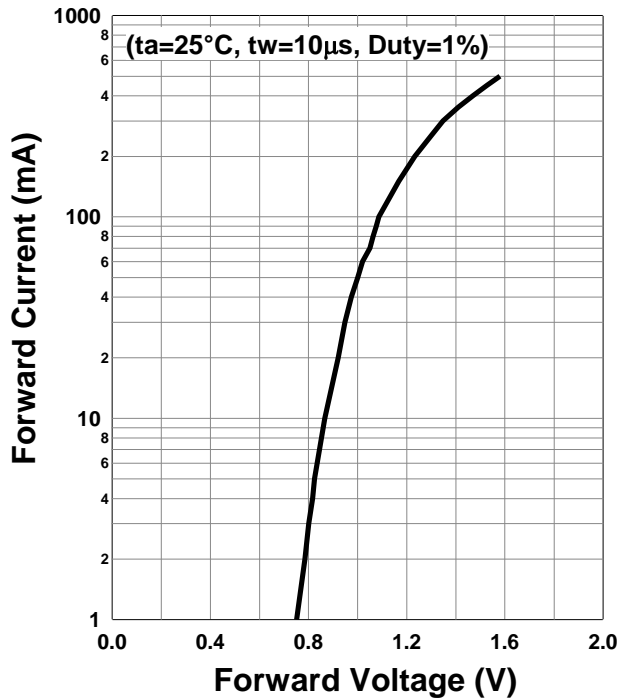
◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.0	1.3	V
	VFP	IFP=1A		1.6		
Radiated Power	PO	IF=50mA		3.0		mW
		IFP=1A		14		
Radiant Intensity	IE	IF=50mA		32		mW/sr
		IFP=1A		150		
Peak Wavelength	λ P	IF=50mA	1400	1450	1500	nm
Half Width	$\Delta\lambda$	IF=50mA		110		nm
Viewing Half Angle	θ 1/2	IF=50mA		\pm 15		deg.

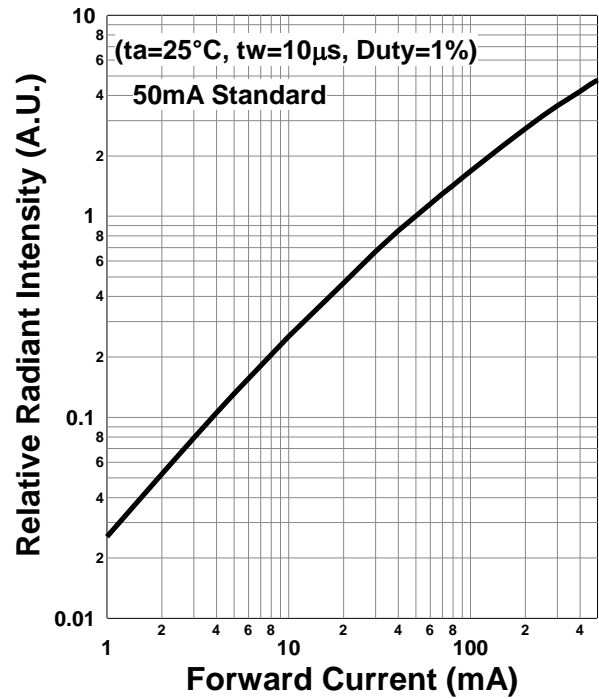
‡Radiated Power is measured by G8370-85.

‡Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2742.

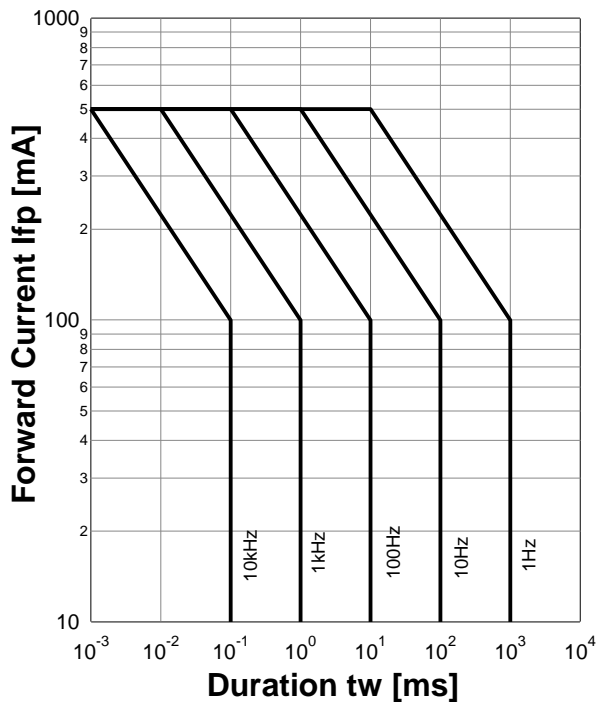
Forward Current - Forward Voltage



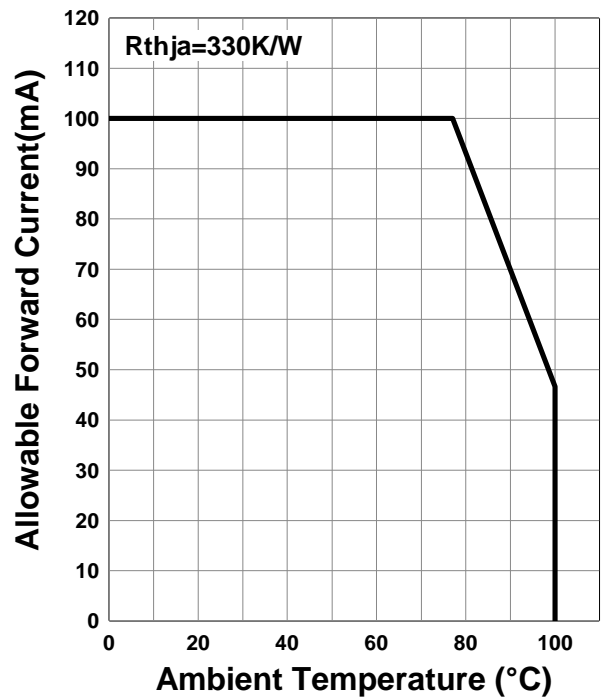
Relative Radiant Intensity - Forward Current



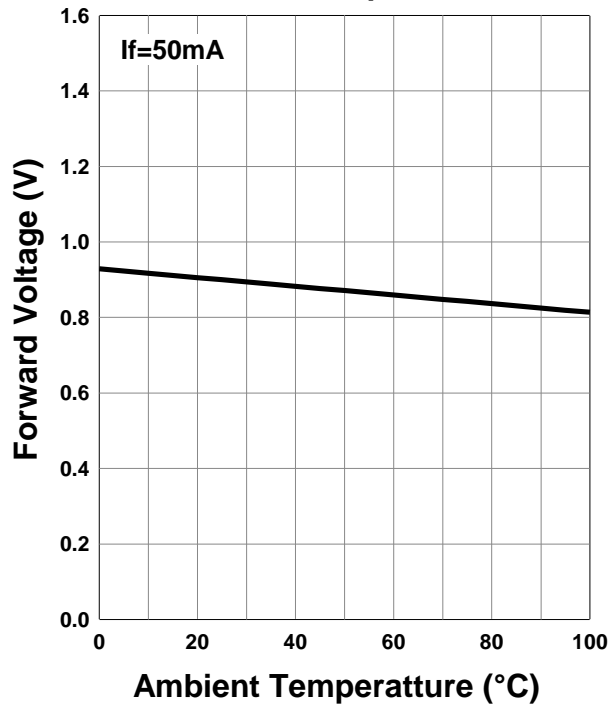
Forward Current - Pulse Duration



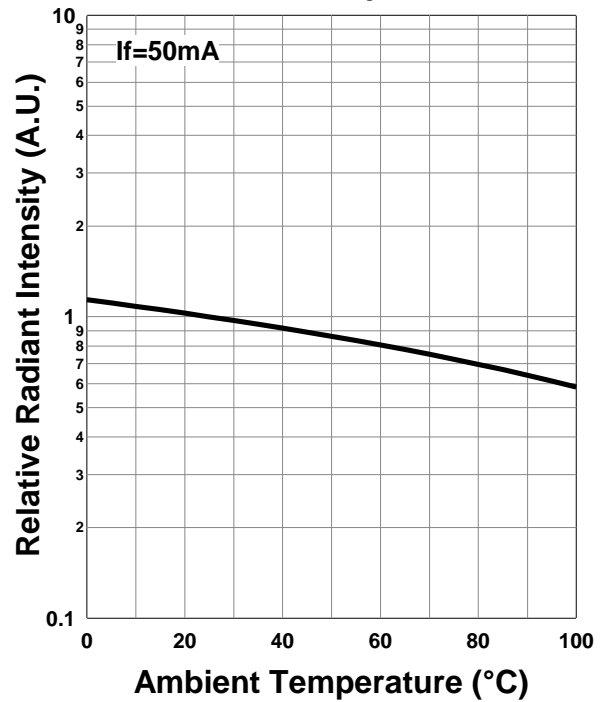
Allowable Forward Current - Ambient Temperature



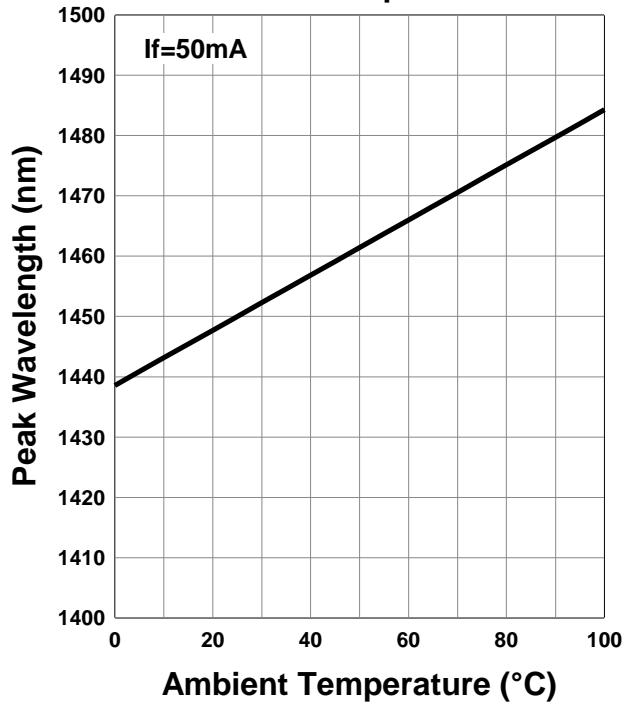
Forward Voltage - Ambient Temperature



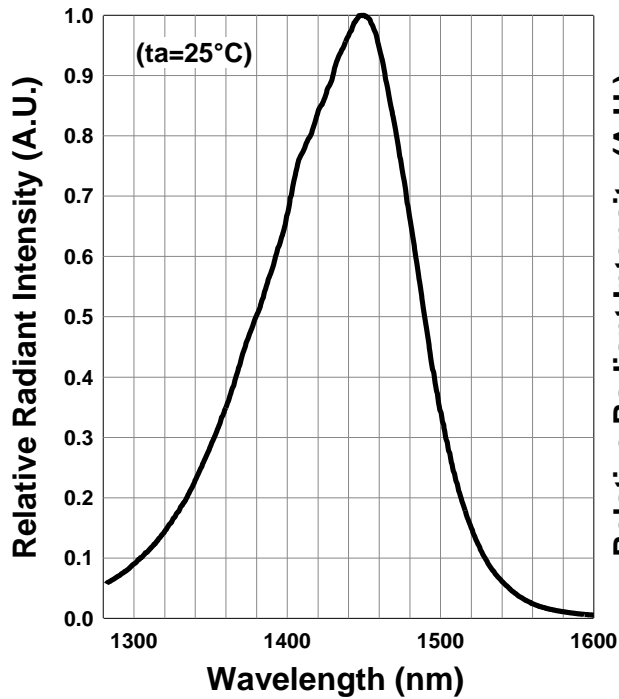
Relative Radiant Intensity - Ambient Temperature



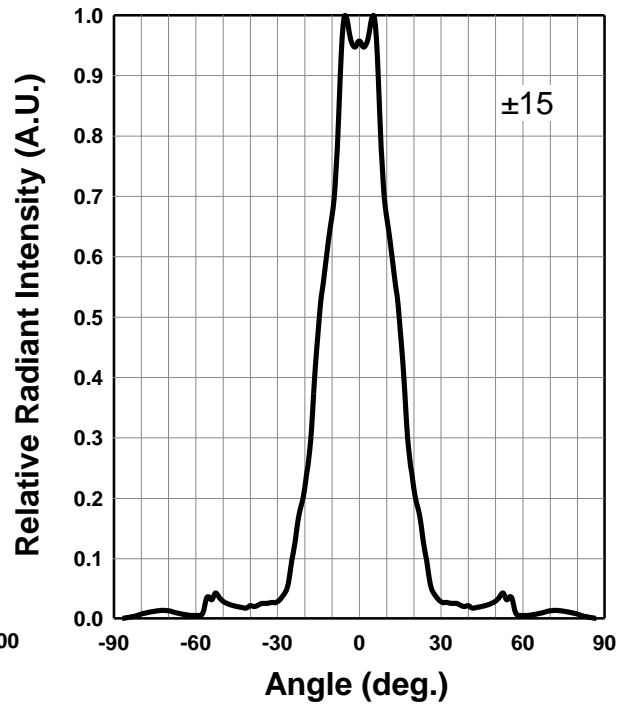
Peak Wavelength - Ambient Temperature



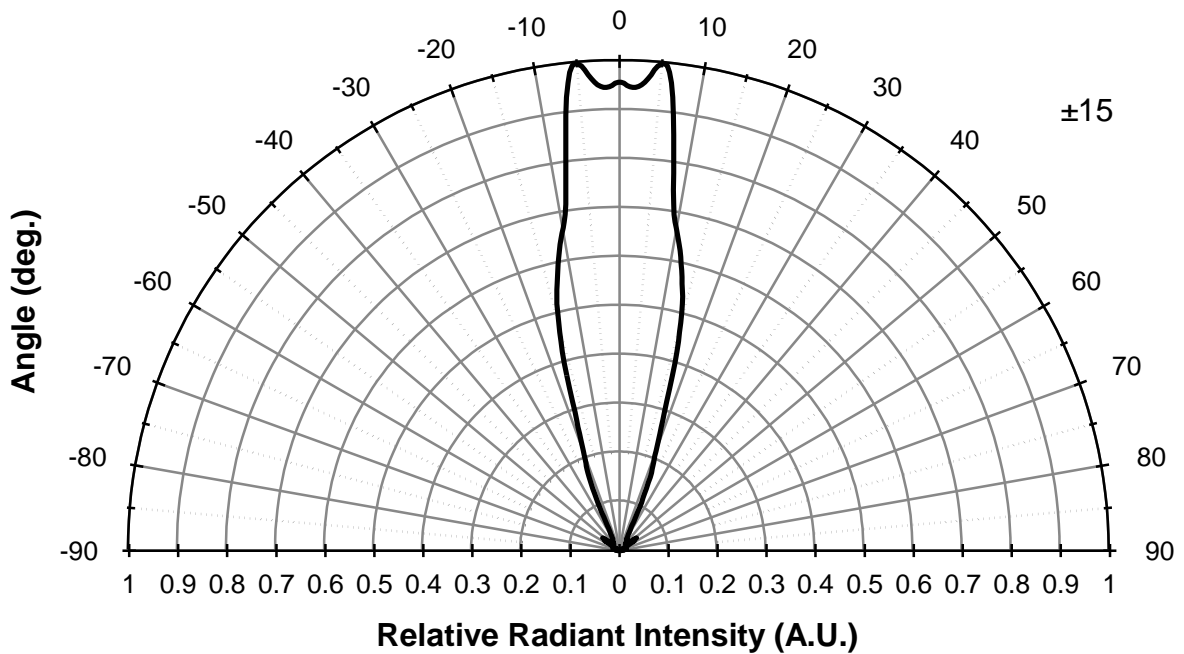
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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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.

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