

Data Sheet

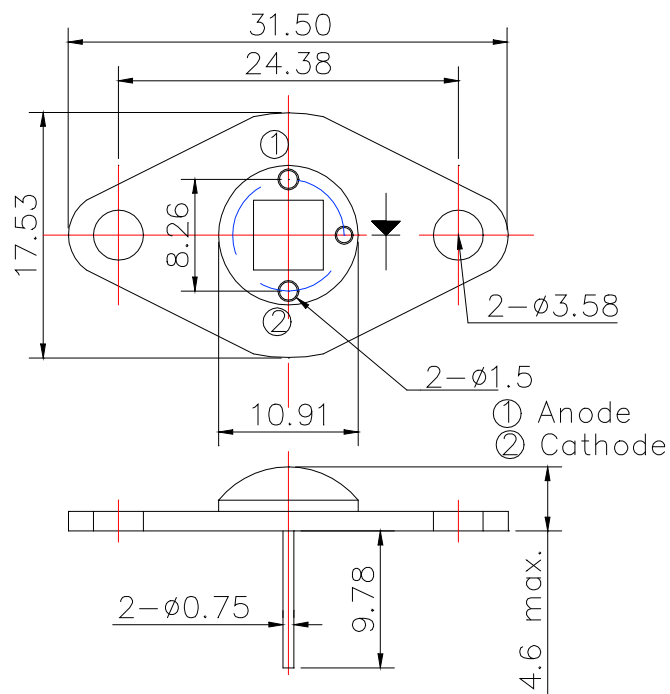
PRELIMINARY

L1650S-66-60

Infrared illuminator

USHIO

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : 300um * 300um
- Number of Chips : 60pcs
- Peak Wavelength : 1650nm typ.
- Stem : TO-66 stem
- Lens : Silicone and/or Epoxy resin

Application

Absolute Maximum Ratings (Tc=25°C)

Item	Symbol	Ratings	Unit
Power Dissipation	PD	7.8	W
Forward Current	IF	1.2	A
Reverse Voltage	VR	15	V
Thermal Resistance	Rthja	2	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	TSOL	265	°C

‡Soldering condition: Soldering condition must be completed with 3 seconds at 265°C.

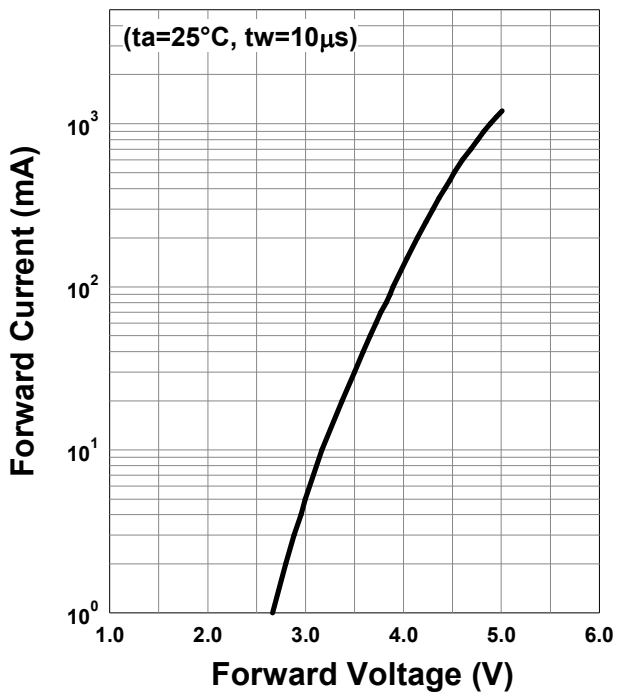
Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		4.6	6.5	V	IF=600mA
Reverse Current	IR			10	uA	VR=15V
Total Radiated Power	PO		34		mW	IF=600mA
Peak Wavelength	λ_p	1600		1700	nm	IF=600mA
Half Width	$\Delta\lambda$		120		nm	IF=600mA
Viewing Half Angle	$\theta_{1/2}$		±65		deg.	IF=100mA
Rise Time	tr		30		ns	IF=600mA
Fall Time	tf		70		ns	IF=600mA

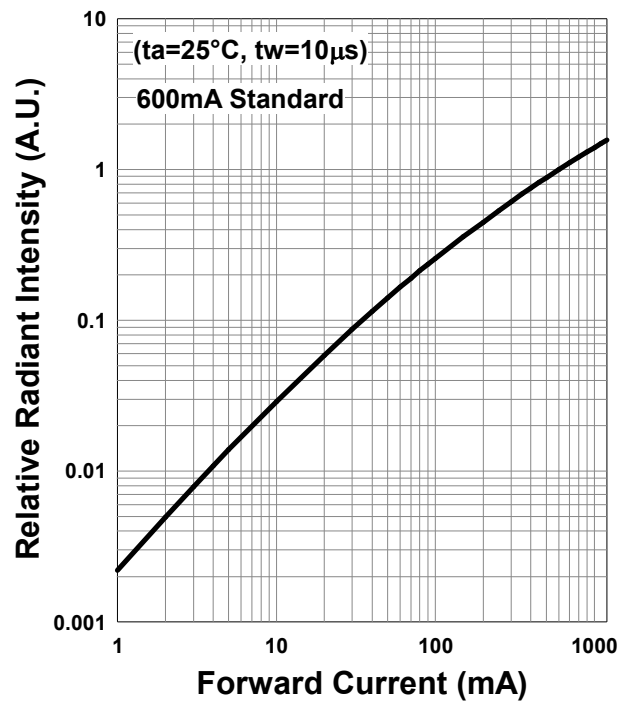
‡ Radiated Power is measured by G8370-85.

Typical Characteristic Curves

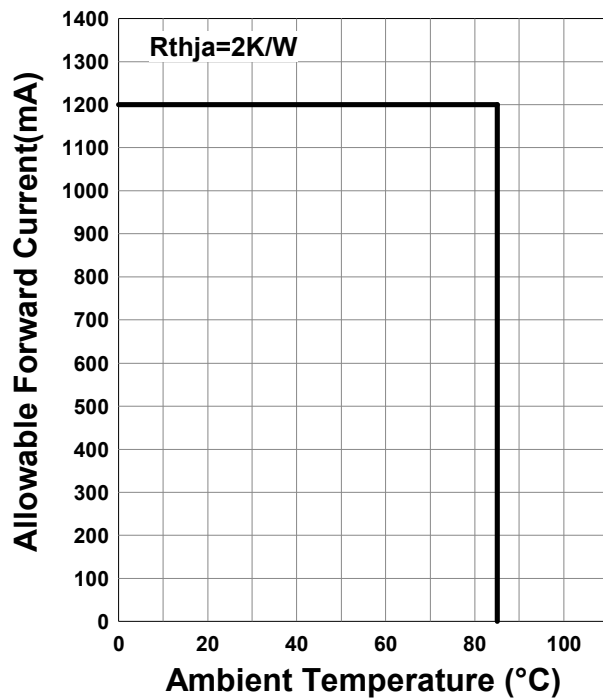
Forward Current - Forward Voltage



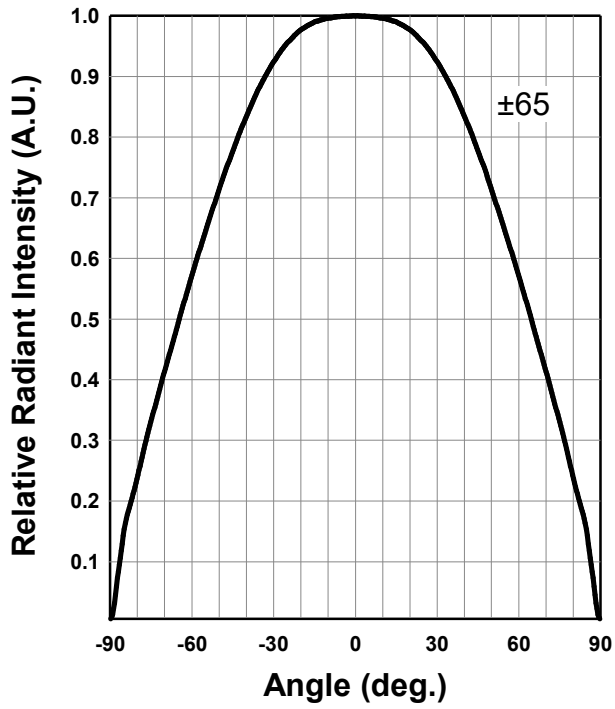
Relative Radiant Intensity - Forward Current



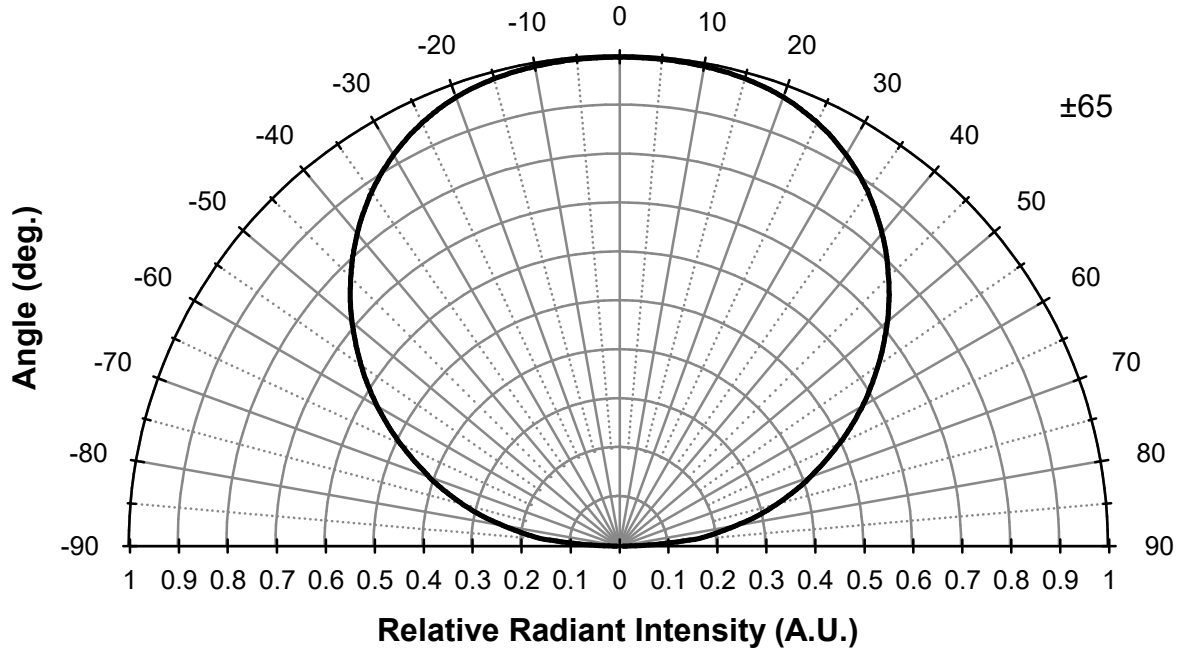
Allowable Forward Current - Ambient Temperature



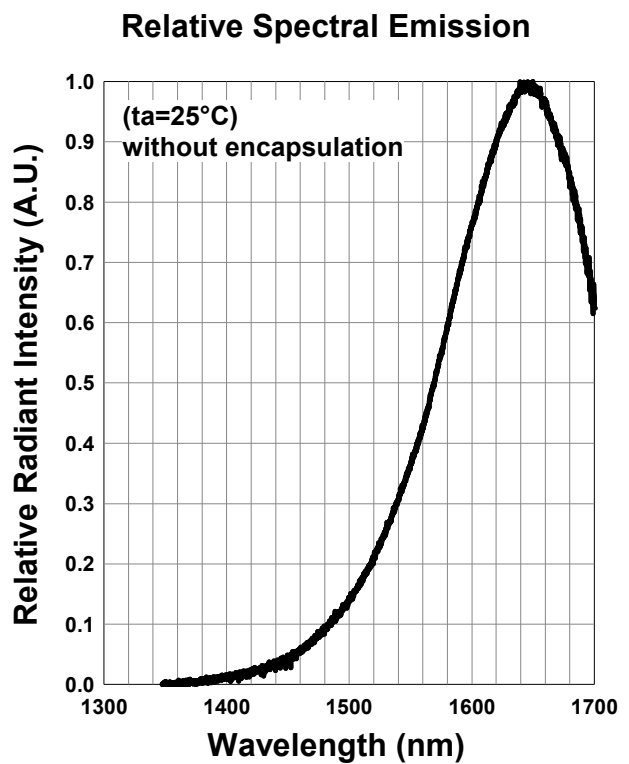
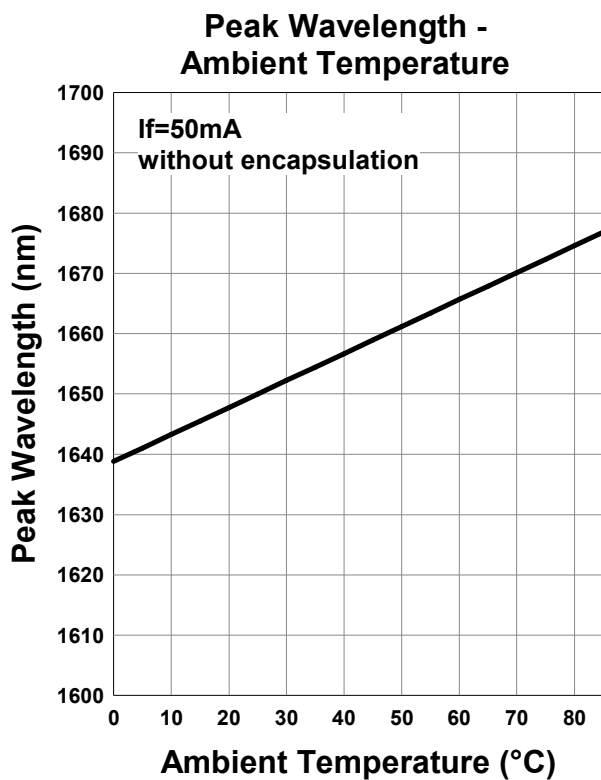
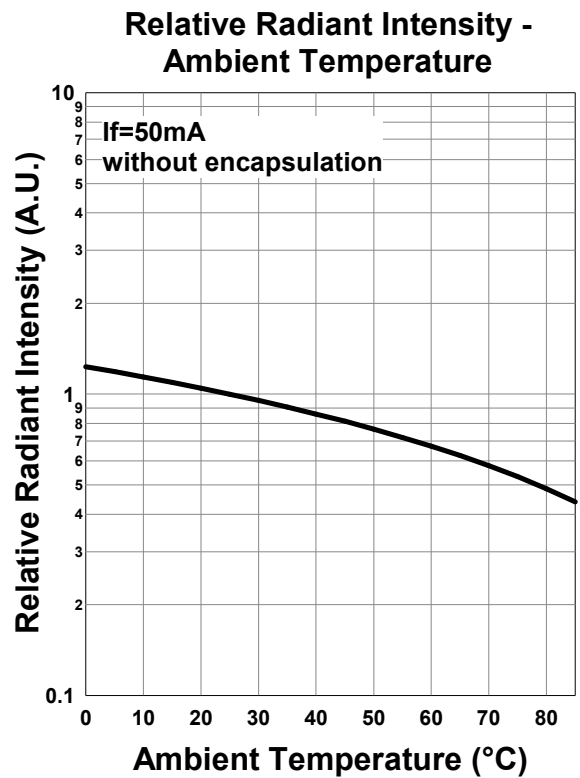
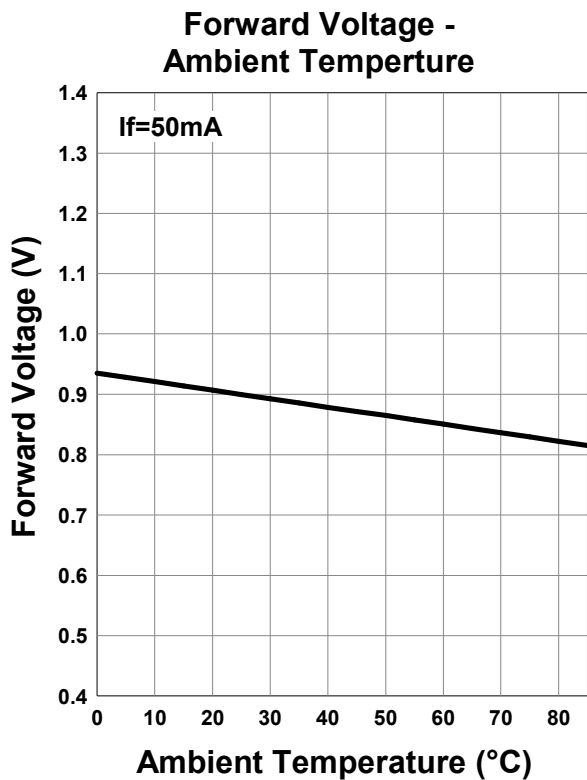
Radiation Characteristics



Radiation Characteristics



*The data below shows the characteristics of one representative TO-66 chip.



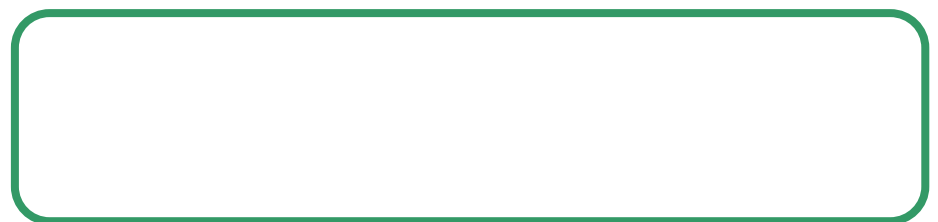
Disclaimer

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.



*Effective July 2016, Ushio Epitex Inc. is now USHIO OPTO SEMICONDUCTORS, INC.