Data Sheet

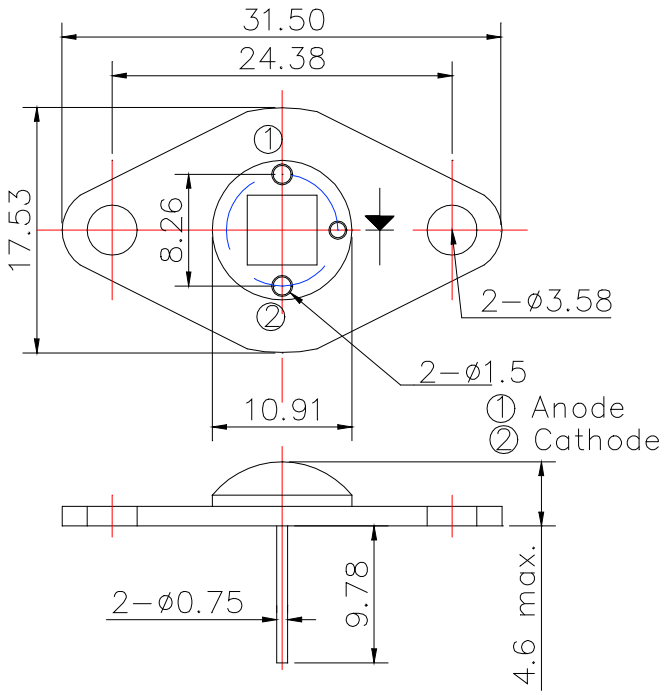
2020.07

epitex

L1300S-66-60

Infrared illuminator

Outline and Internal Circuit



(Unit : mm)

Features

- Chip Material : InGaAsP
- Chip Dimension : 350um * 350um
- Number of Chips : 1pce
- Peak Wavelength : 1300nm 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	25	V
Thermal Resistance	Rthjs	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)

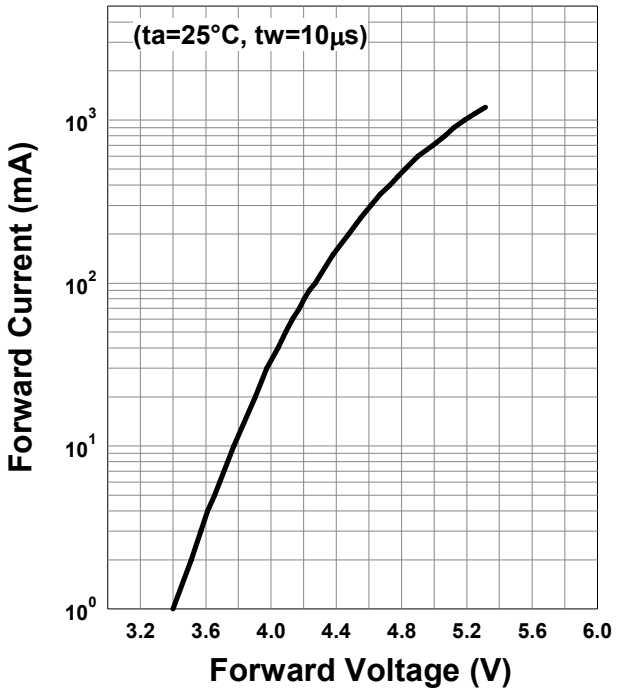
(*: 100% testing, **: reference value)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	VF		4.9	6.5	V	IF=600mA*
Reverse Current	IR			10	uA	VR=25V*
Total Radiated Power	PO		120		mW	IF=600mA*
Peak Wavelength	λp	1250		1350	nm	IF=600mA*
Half Width	Δλ		80		nm	IF=600mA**
Viewing Half Angle	θ1/2		±64		deg.	IF=100mA**
Rise Time	tr		30		ns	IF=600mA**
Fall Time	tf		70		ns	IF=600mA**

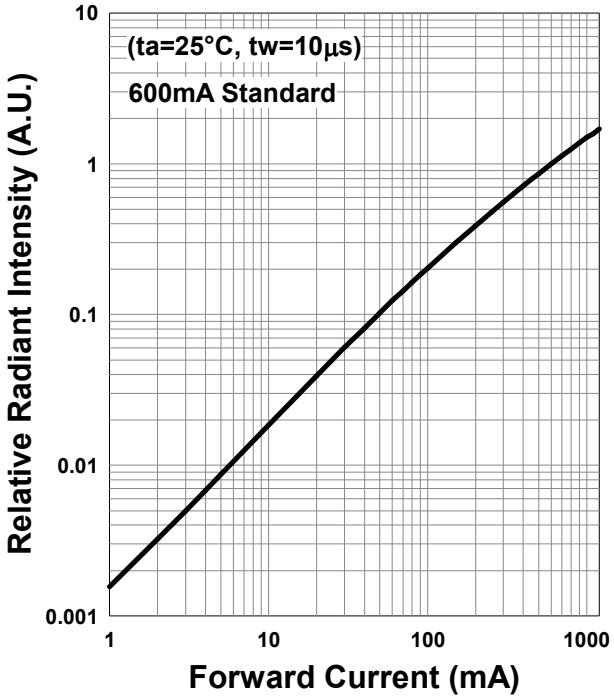
‡ Radiated Power is measured by G8370-85.

Typical Characteristic Curves

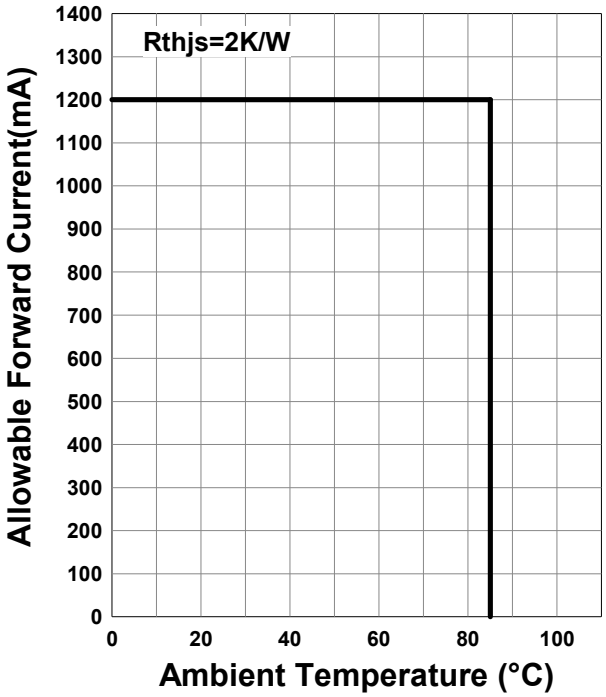
Forward Current - Forward Voltage

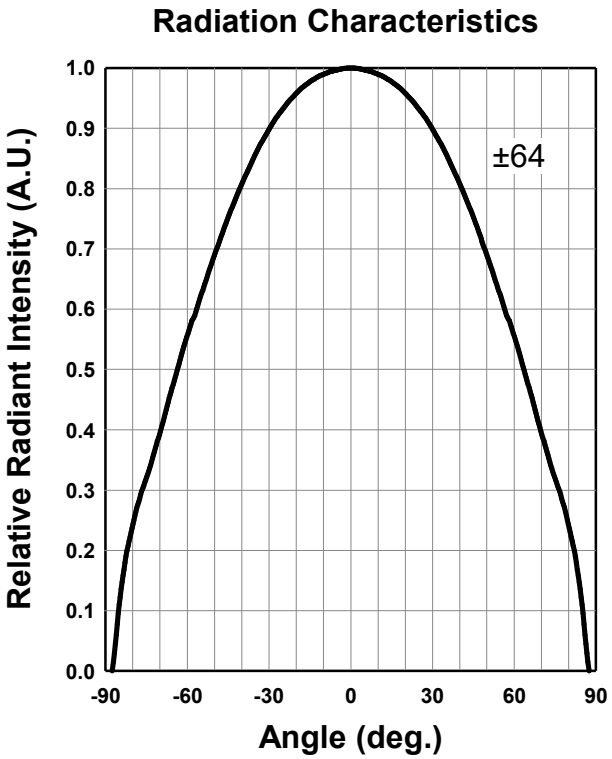


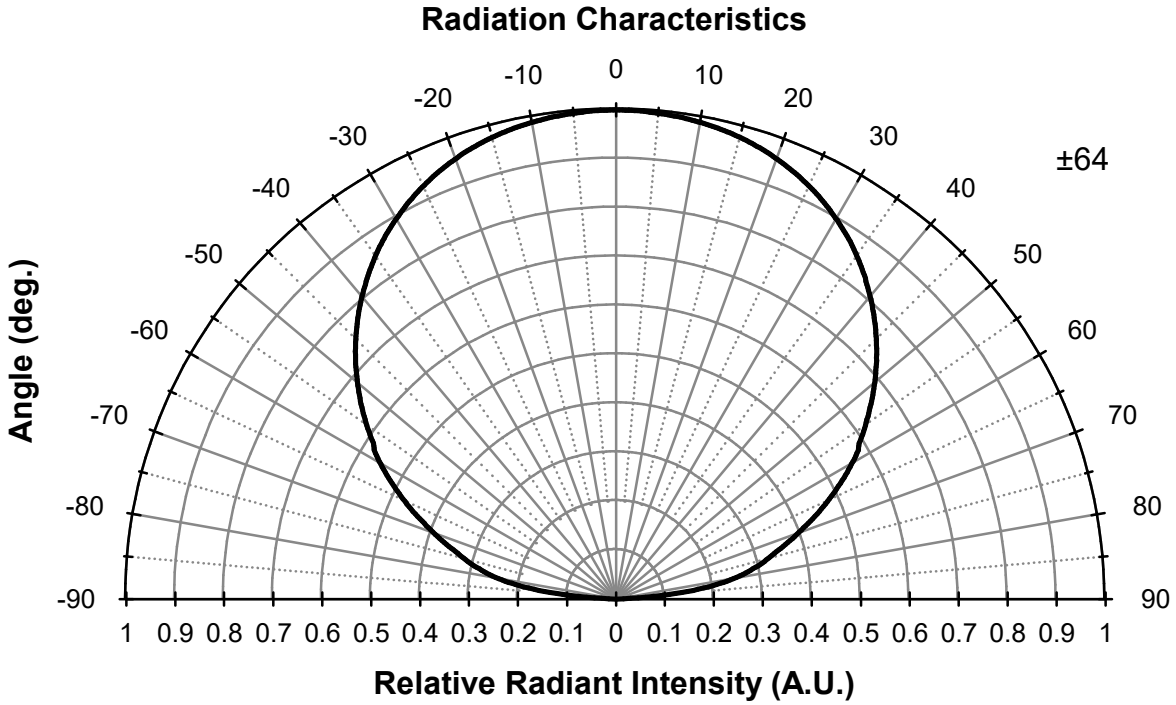
Relative Radiant Intensity - Forward Current



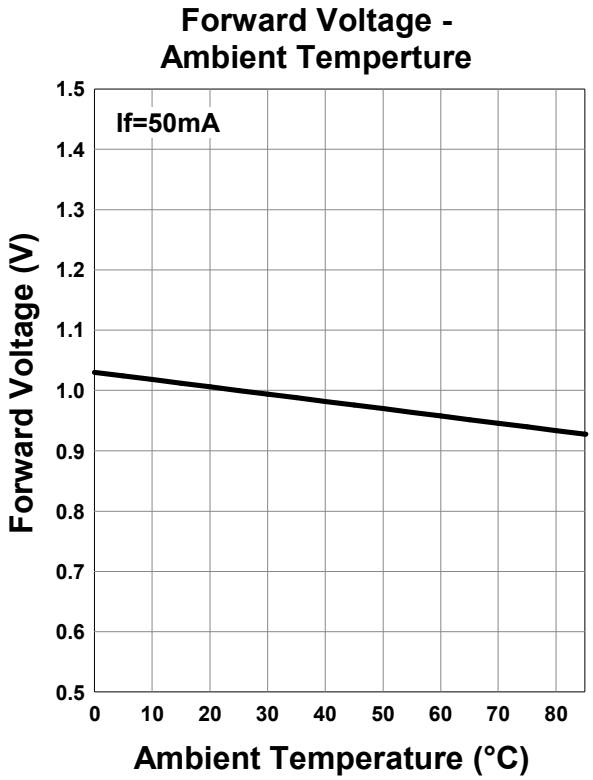
Allowable Forward Current - Ambient Temperature

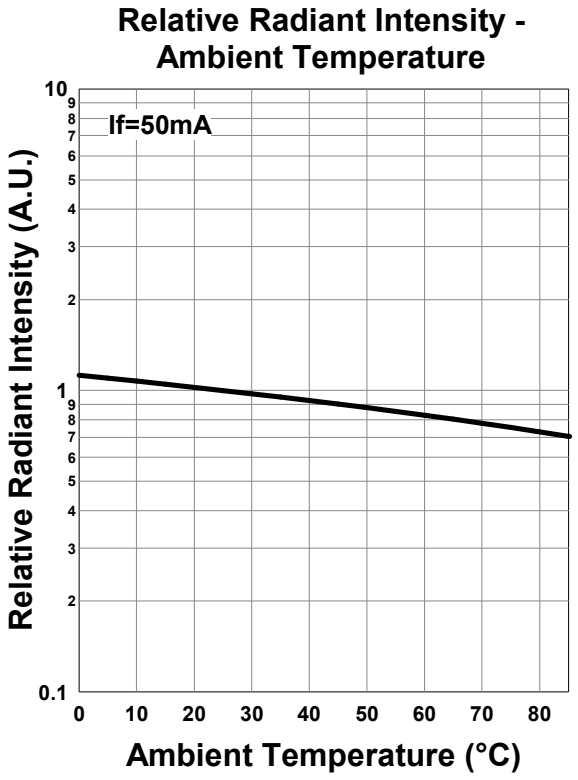


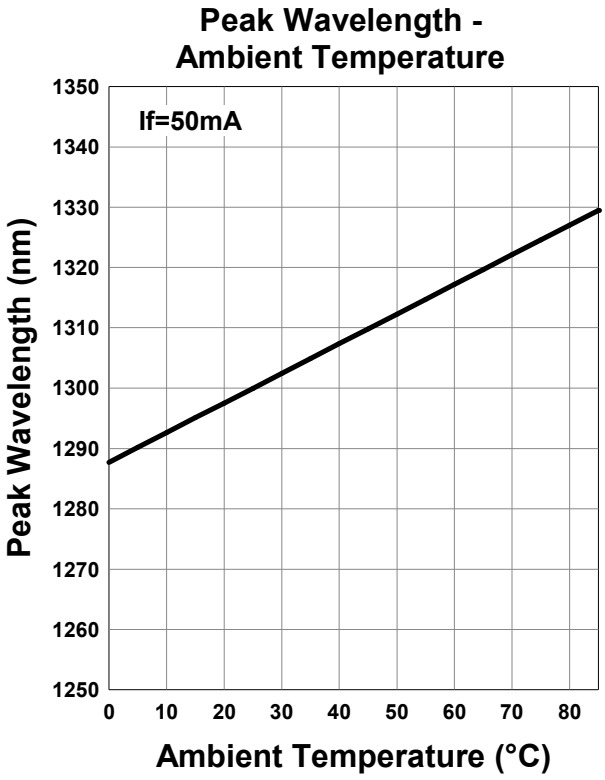

Radiation Characteristics
Relative Radiant Intensity (A.U.)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
±64
-90
-60
-30
0
30
60
90
Angle (deg.)

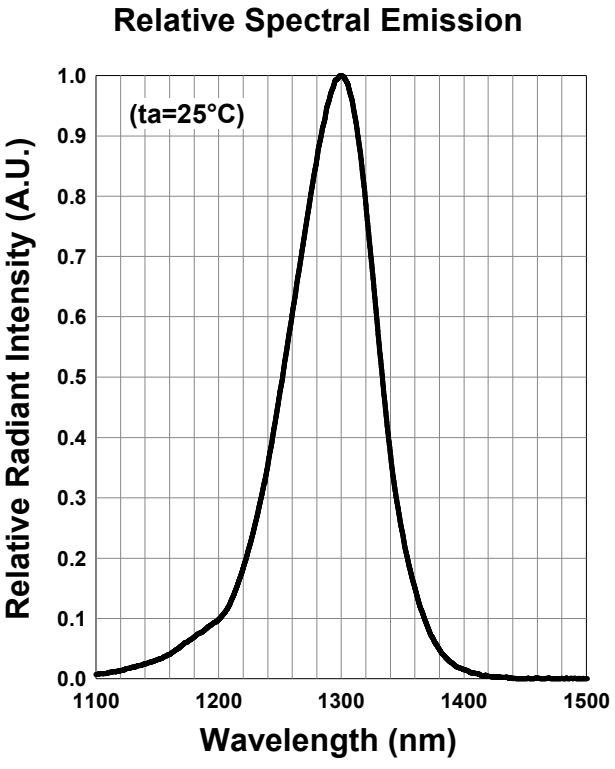

Radiation Characteristics
Angle (deg.)
0
-10
10
-20
20
-30
30
-40
40
-50
50
-60
60
-70
70
-80
80
-90
90
±64
1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Relative Radiant Intensity (A.U.)

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









Disclaimer

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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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