

## 5mm Infrared LED IR323



### Features

- High reliability
- High radiant intensity
- Peak wavelength  $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- Pb Free
- This product itself will remain within RoHS compliant version.
- Compliance with EU REACH
- Compliance Halogen Free(Br < 900ppm, Cl < 900ppm, Br+Cl < 1500ppm)

### Description

- EVERLIGHT's Infrared Emitting Diode (IR323(LM)) is a high intensity diode , molded in a blue plastic package.
- The device is spectrally matched with phototransistor , photodiode and infrared receiver module.

### Applications

- Free air transmission system
- Optoelectronic switch
- Floppy disk drive
- Smoke detector
- Infrared applied system

## Device Selection Guide

Chip Materials	Lens Color
GaAlAs	Blue

## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	$I_F$	100	mA
Peak Forward Current(*1)	$I_{FP}$	1.0	A
Reverse Voltage	$V_R$	5	V
Operating Temperature	$T_{opr}$	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +100	°C
Soldering Temperature(*2)	$T_{sol}$	260	°C
Power Dissipation at (or below) 25°C Free Air Temperature	$P_d$	150	mW

**Notes:** \*1: $I_{FP}$  Conditions--Pulse Width  $\leq 100\mu s$  and Duty  $\leq 1\%$ .

\*2:Soldering time  $\leq 5$  seconds.

**Electro-Optical Characteristics (Ta=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	$I_e$	5.6	7.8	17.6	mW/sr	$I_F=20\text{mA}$
		-----	30	-----		$I_F=100\text{mA}$ Pulse Width $\leq 100\mu\text{s}$ , Duty $\leq 1\%$
		-----	350	-----		$I_F=1\text{A}$ Pulse Width $\leq 100\mu\text{s}$ , Duty $\leq 1\%$
Peak Wavelength	$\lambda_p$	-----	940	-----	nm	$I_F=20\text{mA}$
Spectral Bandwidth	$\Delta\lambda$	-----	45	-----	nm	$I_F=20\text{mA}$
Forward Voltage	$V_F$	-----	1.2	1.5	V	$I_F=20\text{mA}$
		-----	1.4	1.8		$I_F=100\text{mA}$ Pulse Width $\leq 100\mu\text{s}$ , Duty $\leq 1\%$
		-----	2.6	4.0		$I_F=1\text{A}$ Pulse Width $\leq 100\mu\text{s}$ , Duty $\leq 1\%$
Reverse Current	$I_R$	-----	-----	10	$\mu\text{A}$	$V_R=5\text{V}$
View Angle	$2\theta_{1/2}$	-----	30	-----	deg	$I_F=20\text{mA}$

**Rank**

Condition :  $I_F=20\text{mA}$

Unit : mW/sr

Bin Number	L	M	N
Min	5.6	7.8	11.0
Max	8.9	12.5	17.6

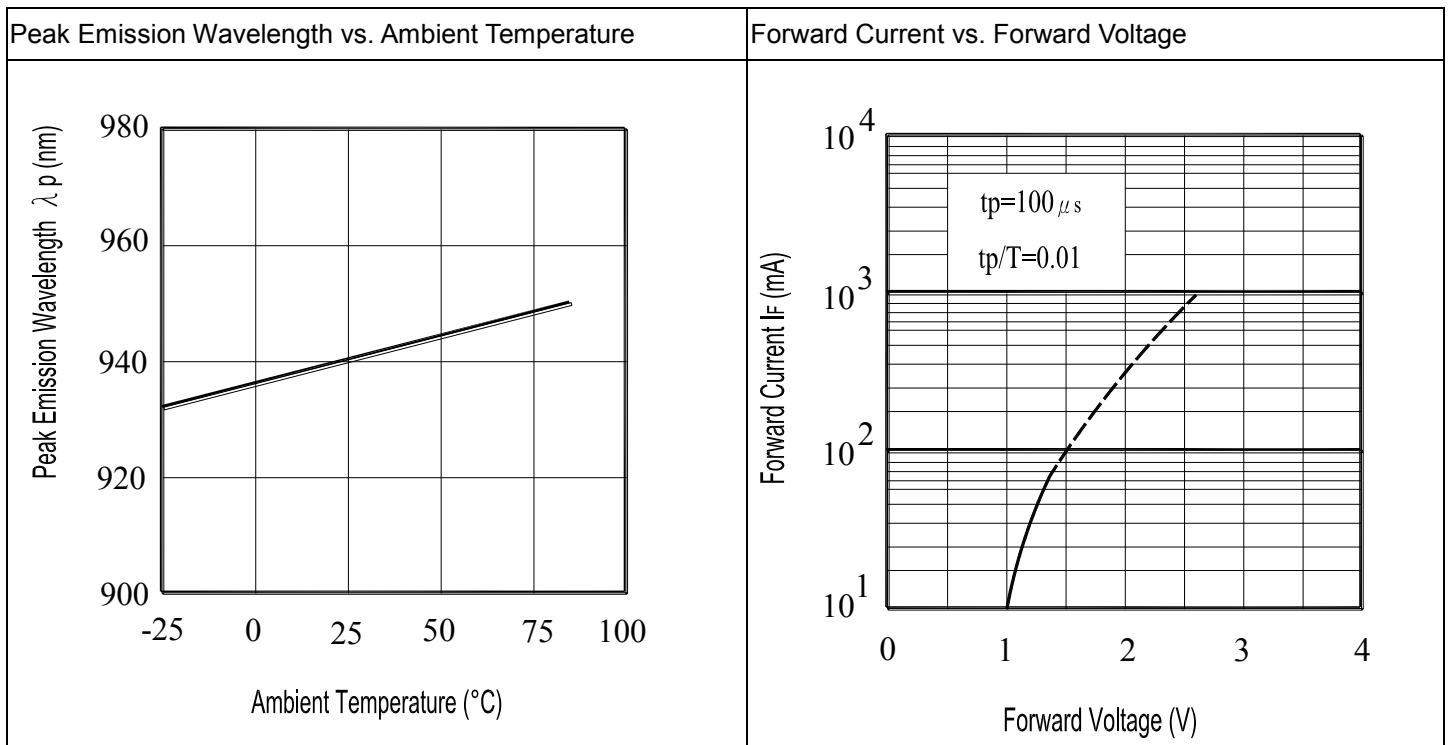
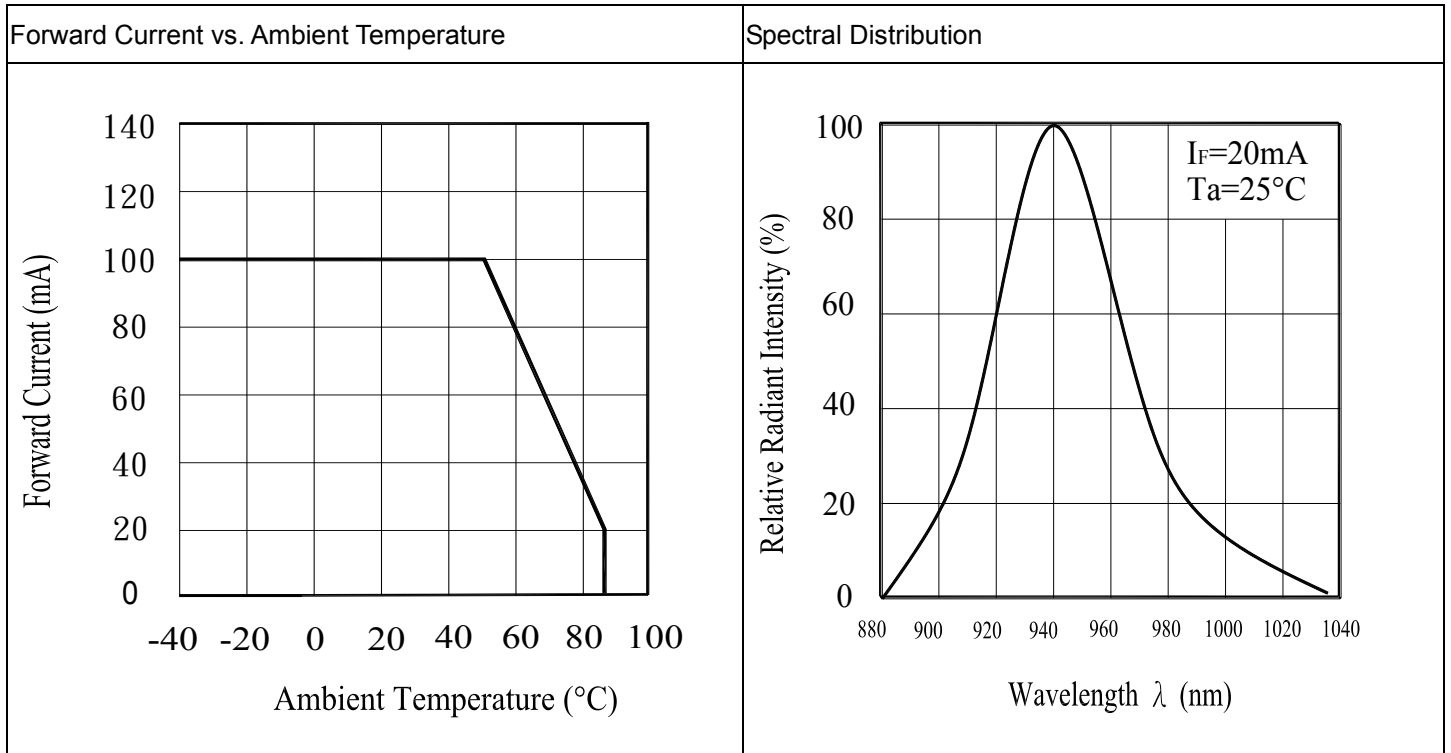
Note:

\*Measurement Uncertainty of Forward Voltage:  $\pm 0.1\text{V}$

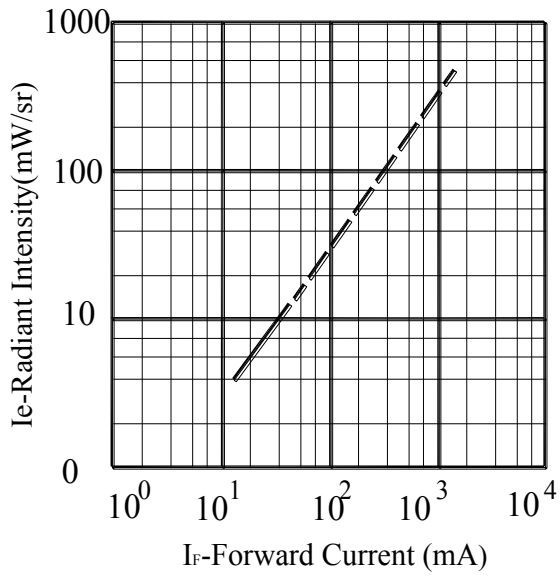
\*Measurement Uncertainty of Luminous Intensity:  $\pm 10\%$

\*Measurement Uncertainty of Dominant Wavelength  $\pm 1.0\text{nm}$

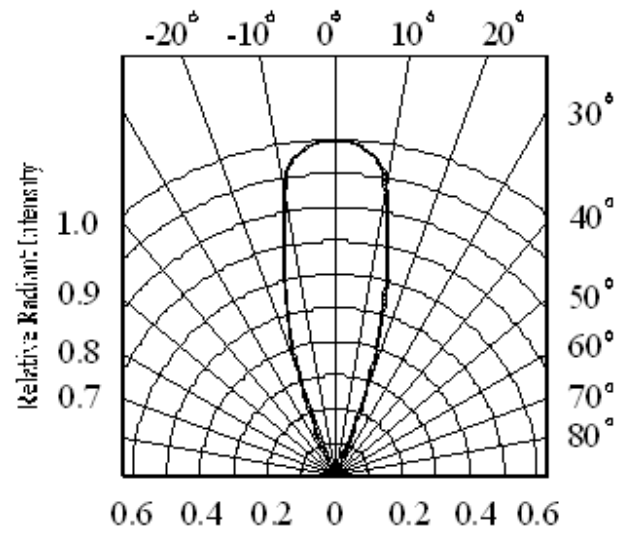
Typical Electro-Optical Characteristics Curves



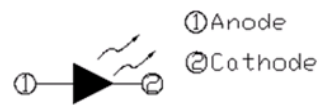
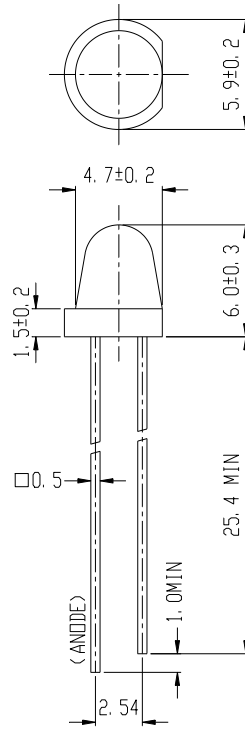
Radiant Intensity vs. Forward Current



Relative Radiant Intensity vs. Angular Displacement

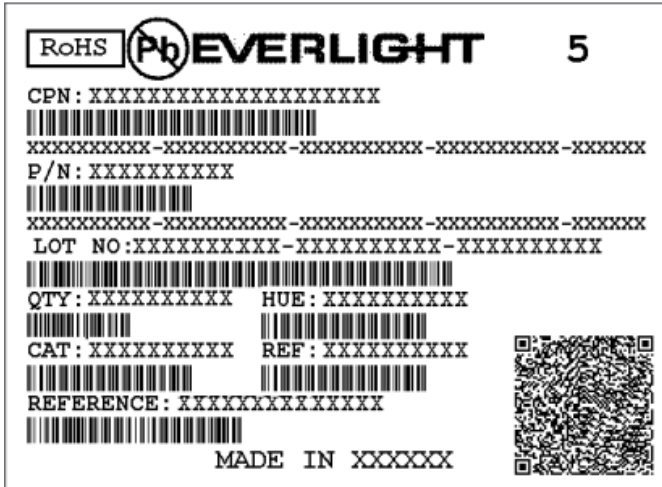


## Package Dimension



Note: Tolerances unless dimensions  $\pm 0.25$ mm

Label Form Specification



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

- Packing Quantity  
1.200~500PCS/1Bag · 5Bags/1Box  
2.10Boxes/1Carton

DISCLAIMER

1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
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