DATASHEET

Technical Data Sheet

3mm Infrared LED, T-1

HIR204C/H0

Features

- High reliability
- 2.54mm lead spacing
- Low forward voltage
- Good spectral matching to Si photodetector
- High radiant intensity
- Pb free
- The product itself will remain within RoHS compliant version.

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Description

EVERLIGHT's infrared emitting (HIR204C/H0)

is a high intensity diode, molded in a water clear plastic package.

The device is spectrally matched with phototransistor, photodiode and infrared receive module.

Applications

•Infrared applied system

Device Selection Guide

LED Part No.	Chip Material	Lens Color
HIR204C/H0	GaAlAs	Water clear

Absolute Maximum Ratings (Ta=25℃)

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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	℃
Storage Temperature		T_{stg}	-40 ~ +100	℃
Soldering Temperature	*2	T_{sol}	260	℃
Power Dissipation at(or below) 25℃ Free Air Temperature		P_d	150	mW

Notes: *1:I_{FP} Conditions--Pulse Width≦100μs and Duty≦1%.

*2:Soldering time≦5 seconds.

Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	IE	11	-	48	mW/sr	I_F=20mA
Peak Wavelength	λp	-	850	-	nm	I_F=20mA
Spectral Bandwidth	Δλ	-	45	-	nm	I_F=20mA
Forward Voltage	V_F	-	1.45	1.65	V	I_F=20mA
		-	1.8	2.4		I_F=100mA
Reverse Current	I_R	-	-	10	μA	V_R=5V
View angle	2θ1/2	-	40	-	degree	I_F=20mA

Rank

Condition：I_F=20mA

Unit：mW/sr

Bin Number	N	P	Q	R
Min	11.0	15.0	21.0	30.0
Max	17.6	24.0	34.0	48.0

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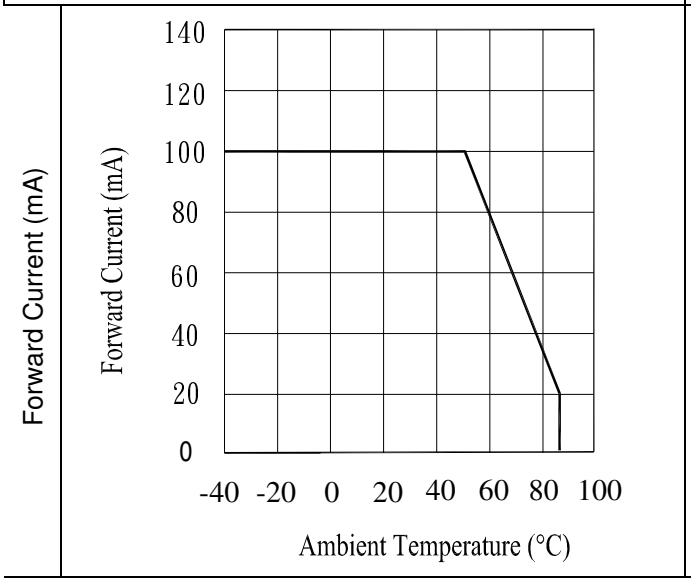
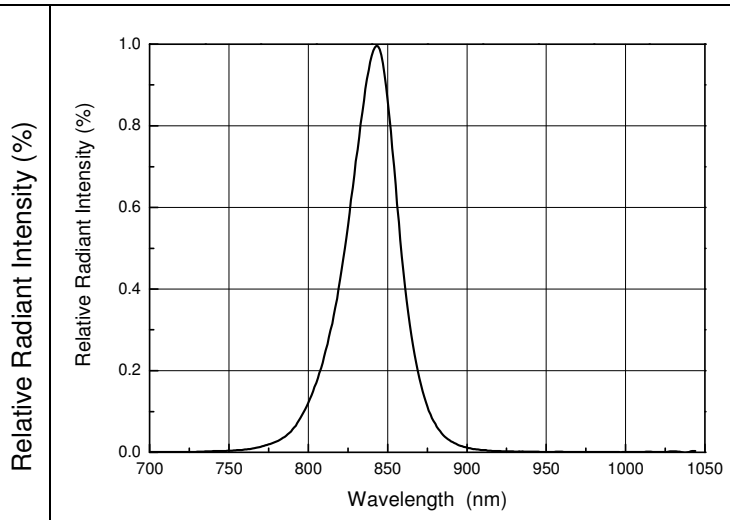
Fig.1 Forward Current vs. Ambient Temperature



Ambient Temperature(℃)

Fig.2 Spectral Distribution



Wavelength λ (nm)

Fig.3 Radiant Intensity vs. Forward Current

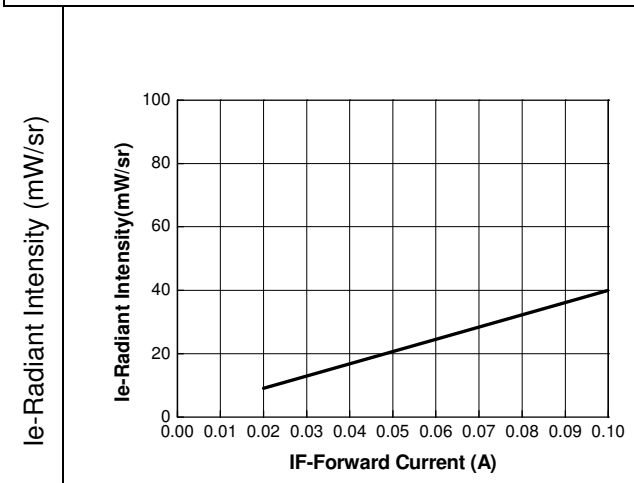
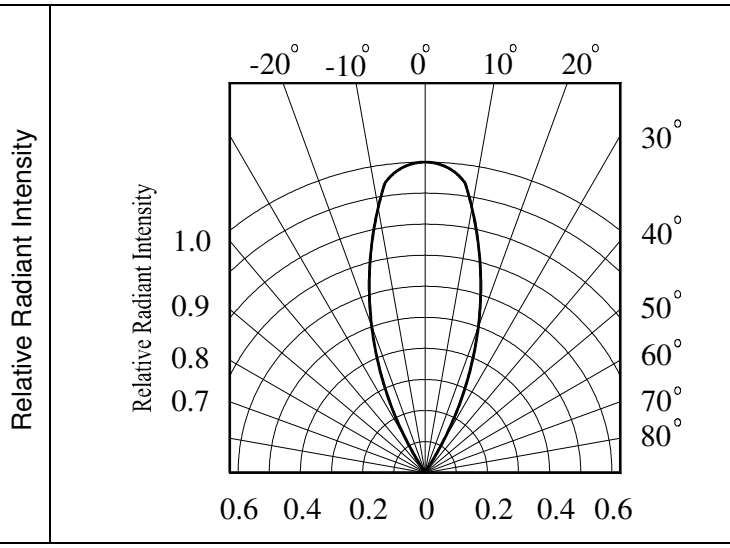


Fig.4 Relative Radiant Intensity vs. Angular Displacement



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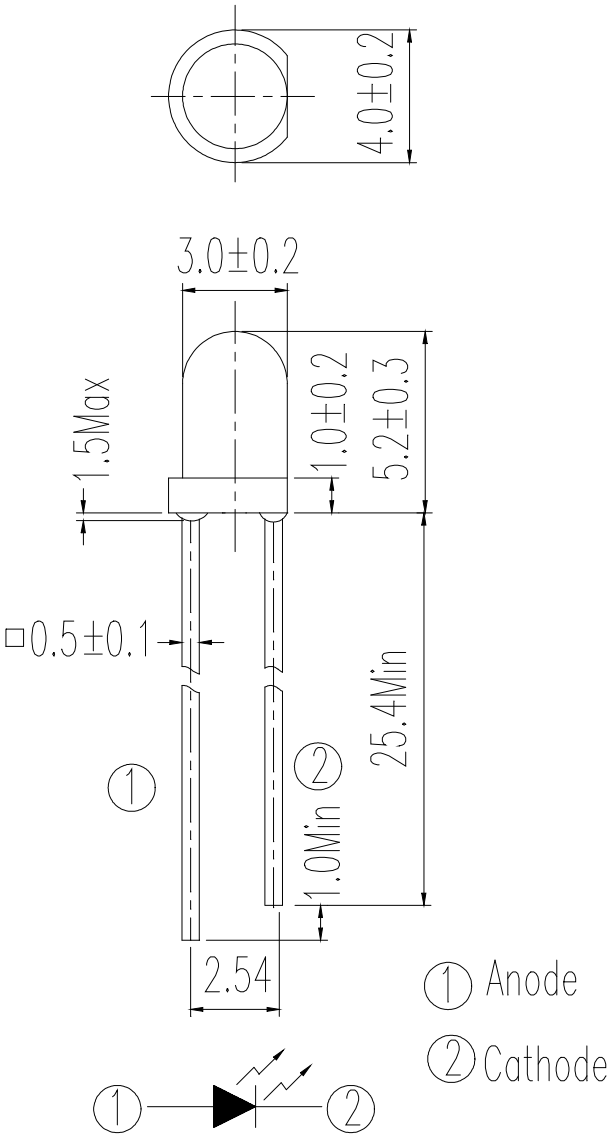
Package Dimension



Notes: 1. All dimensions are in millimeters
2. Tolerances unless dimensions ±0.25mm

Moisture Resistant Packing Materials

Label Form Specification

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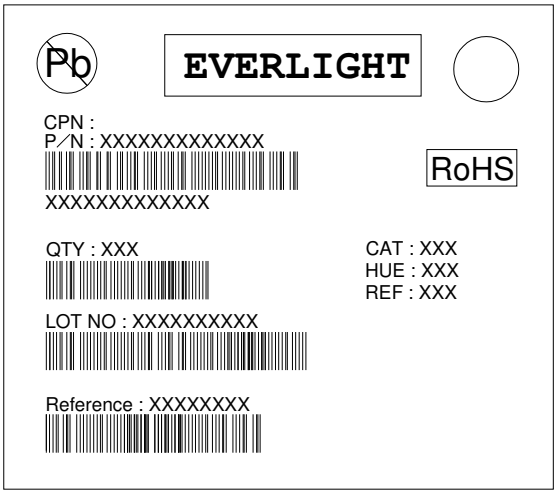

CPN: Customer's Production Number

P/N : Production Number

QTY: Packing Quantity

CAT: Ranks

HUE: Peak Wavelength

REF: Reference

LOT No: Lot Number

MADE IN TAIWAN: Production Place

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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