

3mm Infrared LED IR204/H16/L10/TR1-3(R)(DTE-S)

Features

- High reliability
- High radiant intensity
- Peak wavelength $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- This product itself will remain within RoHS compliant version.

Description

- EVERLIGHT'S Infrared Emitting Diode(IR204/H16/L10/TR1-3(R)(DTE-S)) 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
- Infrared remote control units with high power requirement
- 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 ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	I_e	4.0	----	17.6	mW/sr	$I_F=20\text{mA}$
		-----	35	-----		$I_F=100\text{mA}$ Pulse Width $\leq 100\mu\text{s}$, Duty $\leq 1\%$
Peak Wavelength	λ_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 $\leq 1\%$
Reverse Current	I_R	----	----	10	μA	$V_R=5\text{V}$
View Angle	2 θ 1/2	----	50	----	deg	$I_F=20\text{mA}$

Tolerance of radiant intensity: +/-10%

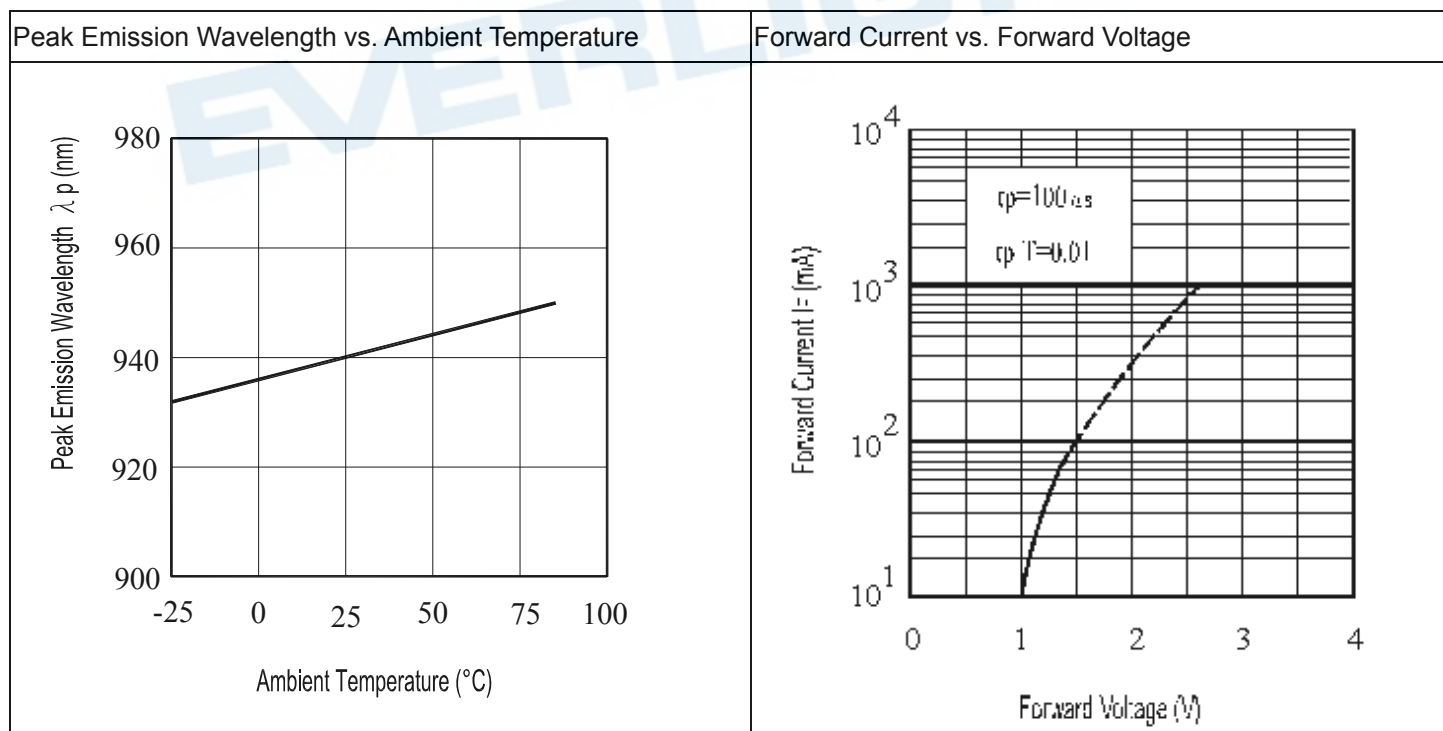
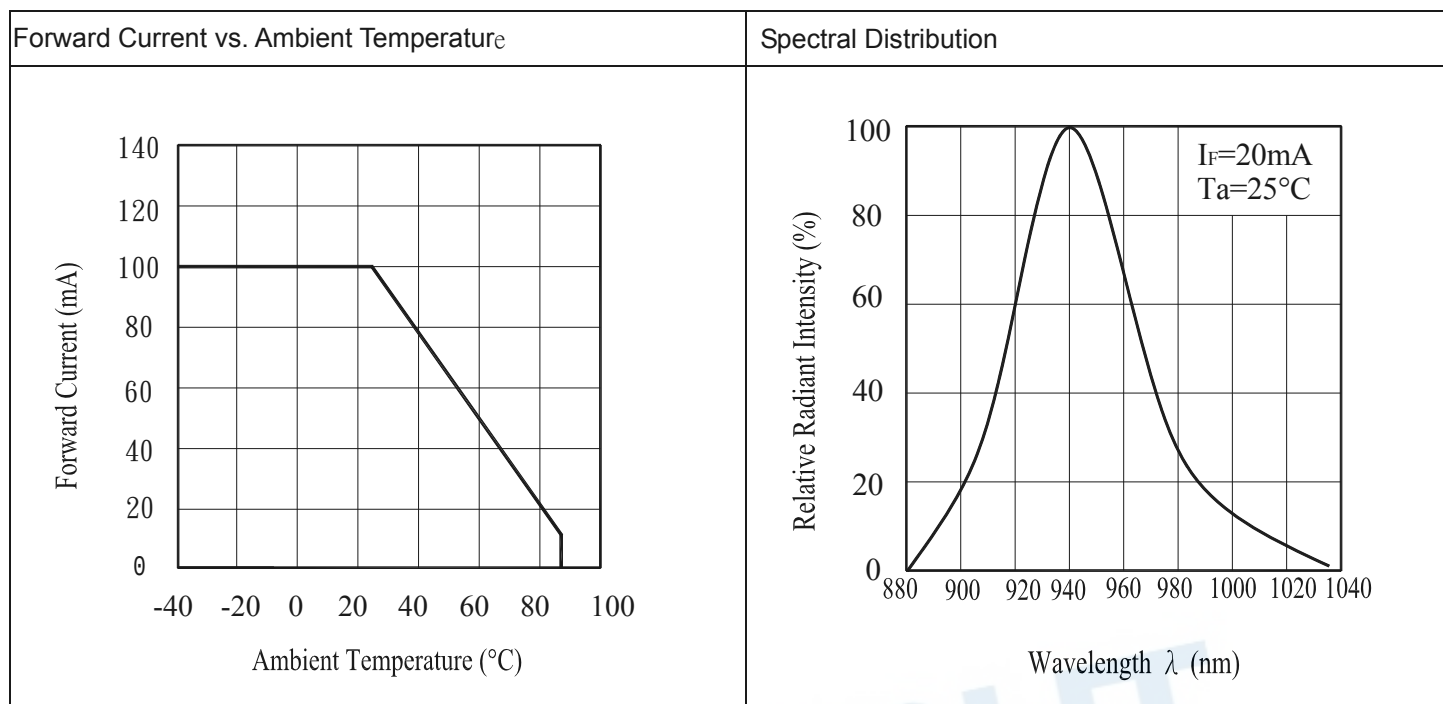
Rank

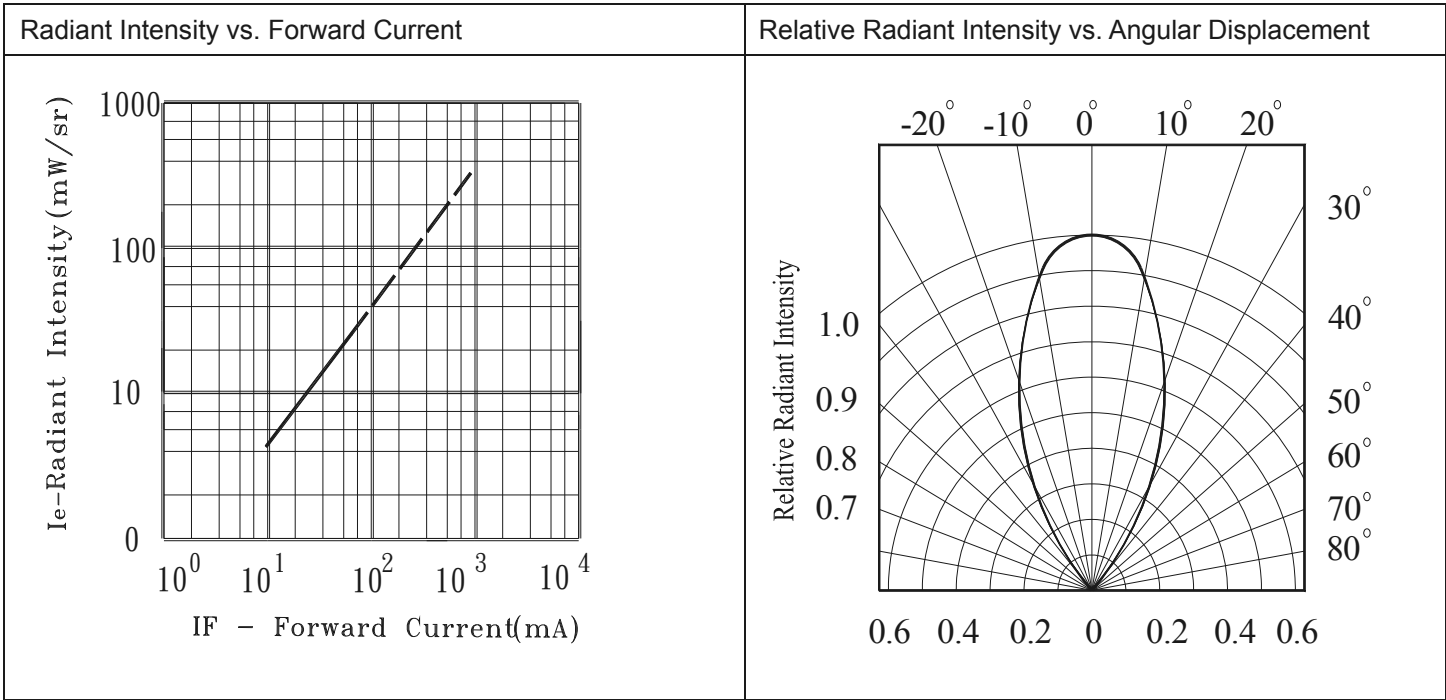
Condition : $I_F=20\text{mA}$

Unit : mW/sr

Bin Number	K	L	M	N
Min	4.0	5.6	7.8	11.0
Max	6.4	8.9	12.5	17.6

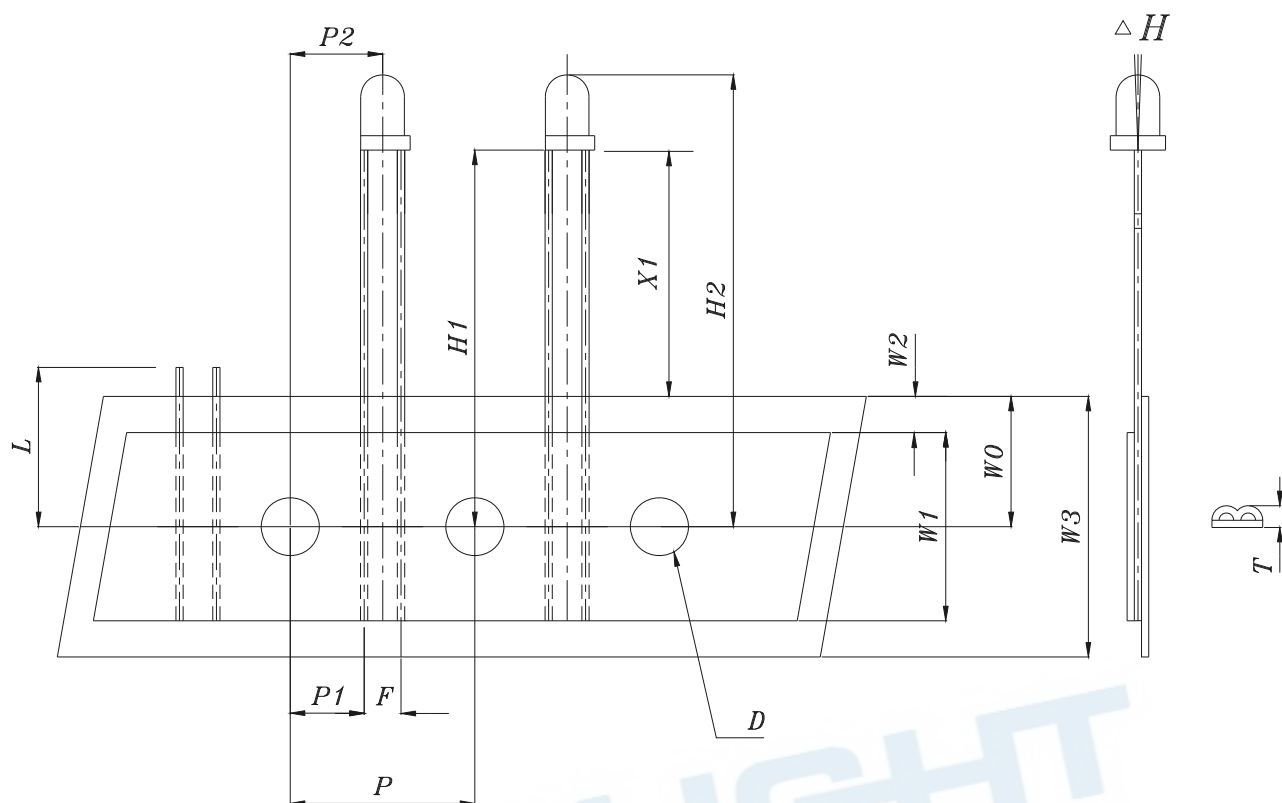
Typical Electro-Optical Characteristics Curves





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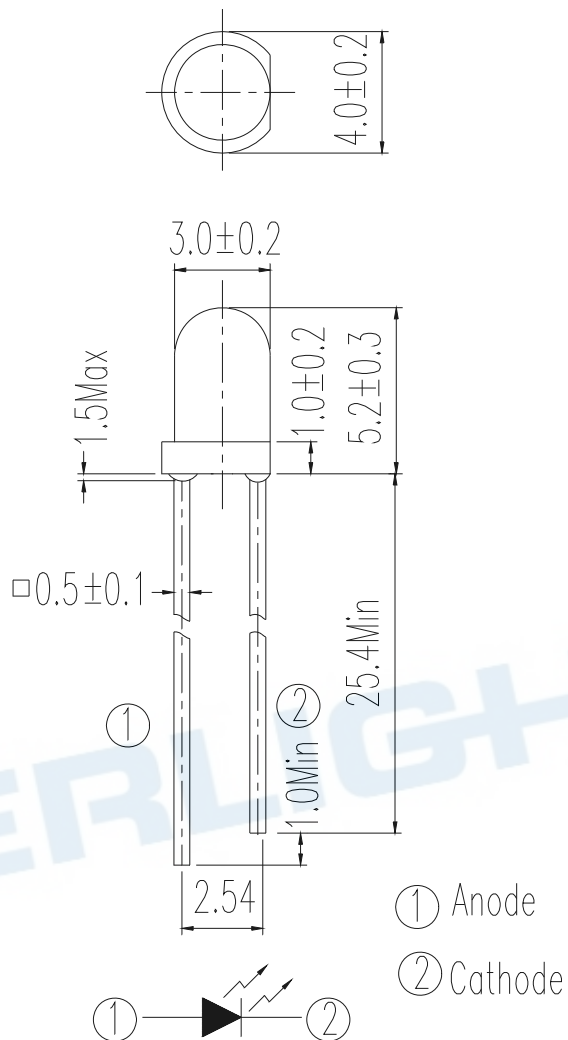
Taping Dimensions



Taping Sizes

Symbol Item	Symbol	Specifications		
		Avg		Tolerance
		mm	Inch	mm
Tape Feed Hold Diameter	D	4.0	0.157	± 0.2
Component Lead Pitch	F	2.54	0.1	$+0.8/-0.2$
Front-To-Rear Deflection	ΔH	0°	0	$\pm 5^\circ$
Feed Hole To Button Of Component	H1	23.4	0.921	± 1.0
Feed Hole To Overall Component Height	H2	28.6	1.126	± 1.0
Lead Length After Component Height	L	11.0	0.433	Max
Feed Hold Pitch	P	12.7	0.500	± 0.3
Lead Location	P1	5.08	0.200	± 0.7
Center Of Component Location	P2	6.35	0.250	± 1.2
Overall Taped Package Thickness	T	1.42	0.056	Max
Feed Hold Location	W0	9.0	0.354	± 0.5
Adhesive Tape Width	W1	13.0	0.512	± 0.5
Adhesive Tape Position	W2	2.0	0.079	Max
Tape Width	W3	18.0	0.709	± 0.75

Package Dimension



Note: Tolerances unless dimensions $\pm 0.25 \text{ mm}$

Label Explanation



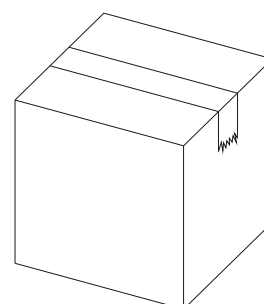
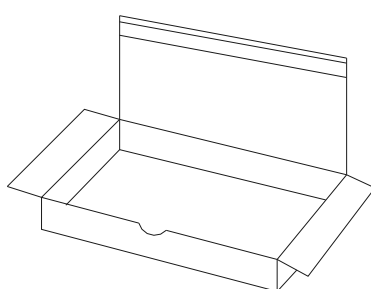
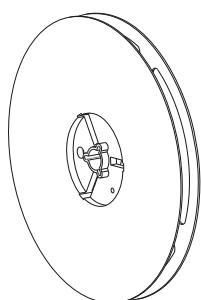
- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

Packing Specification

■ Tape

■ Inner Carton

■ Outside Carton



■ Packing Quantity

2000Pcs/1Roll , 2Rolls/1Box , 5Boxes/1Carton