

Technical Data Sheet Top Infrared LED IR67-21C/L261/S65/TR8

Features

- Compatible with infrared and vapor phase reflow solder process.
- Low forward voltage.
- View angle 120°
- Pb free
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH.
- Compliance Halogen Free .(Br <900 ppm ,Cl <900 ppm , Br+Cl < 1500 ppm)



Description

- IR67-21C/L261/S65/TR8 is an infrared emitting diode in miniature SMD package which is molded in a water clear plastic with flat top view lens.
- The device is spectrally matched with silicon photodiode and phototransistor.

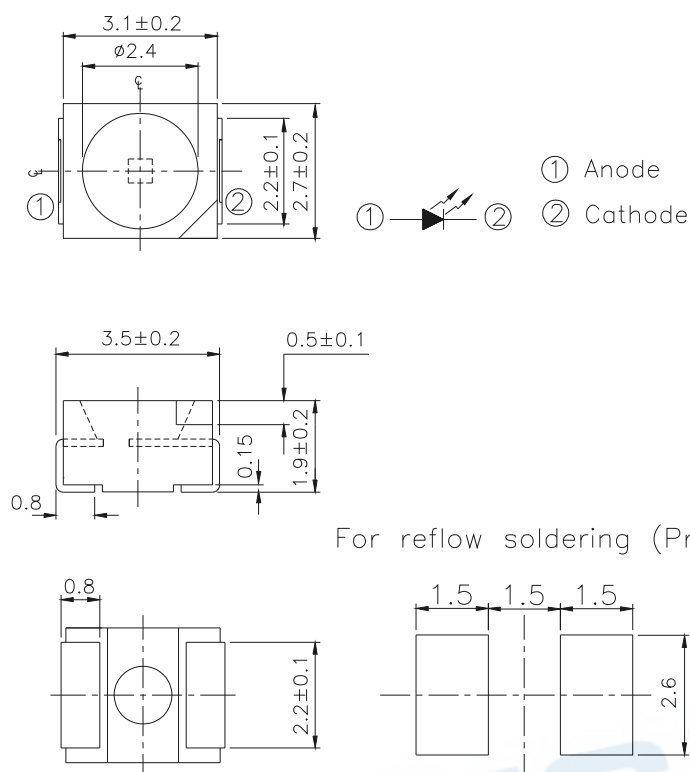
Applications

- Sensor
- Optoelectronic switch
- Camera
- VCR
- Video
- Smoke detector

Device Selection Guide

Device No.	Chip Material	Lens Color
IR67-21C/L261/S65/TR8	GaAlAs	Water Clear

Package Dimensions



- Notes:** 1.All dimensions are in millimeters
2.Tolerances unless dimensions $\pm 0.1\text{mm}$

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I_F	65	mA
Peak Forward Current *1	I_{FP}	1	A
Surge Forward Current *2	I_{FS}	2	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	$-40 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +100$	$^\circ\text{C}$
Soldering Temperature *3	T_{sol}	260	$^\circ\text{C}$
Power Dissipation at(or below) 25°C Free Air Temperature	P_d	130	mW
Temperature resistance junction ambient	R_{thj-a}	400	$^\circ\text{C/W}$

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

*2: I_{FS} Conditions--Pulse Width $\leq 100 \mu\text{s}$

*3:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Radiant Intensity	I_E	$I_F=20\text{mA}$	1.0	2.0	3.5	mW /sr
		$I_F=100\text{mA}$ Pulse Width $\leq 100 \mu\text{s}$, Duty $\leq 1\%$	4.0	8.0	--	
Total Radiated Power	P_o	$I_F=100\text{mA}$	--	20	--	mW
Peak Wavelength	λ_p	$I_F=20\text{mA}$	--	940	--	nm
Spectral Bandwidth	$\Delta \lambda$	$I_F=20\text{mA}$	--	50	--	nm
Forward Voltage	V_F	$I_F=20\text{mA}$	--	1.20	1.60	V
		$I_F=100\text{mA}$ Pulse Width $\leq 100 \mu\text{s}$, Duty $\leq 1\%$	--	1.45	1.80	
Reverse Current	I_R	$V_R=5\text{V}$	--	--	10	μA
View Angle	$2\theta_{1/2}$	$I_F=20\text{mA}$	--	120	--	deg
Active chip area	A	----	0.122			mm^2
Dimensions of the active chip area	L×W	----	0.350*0.350			mm×mm

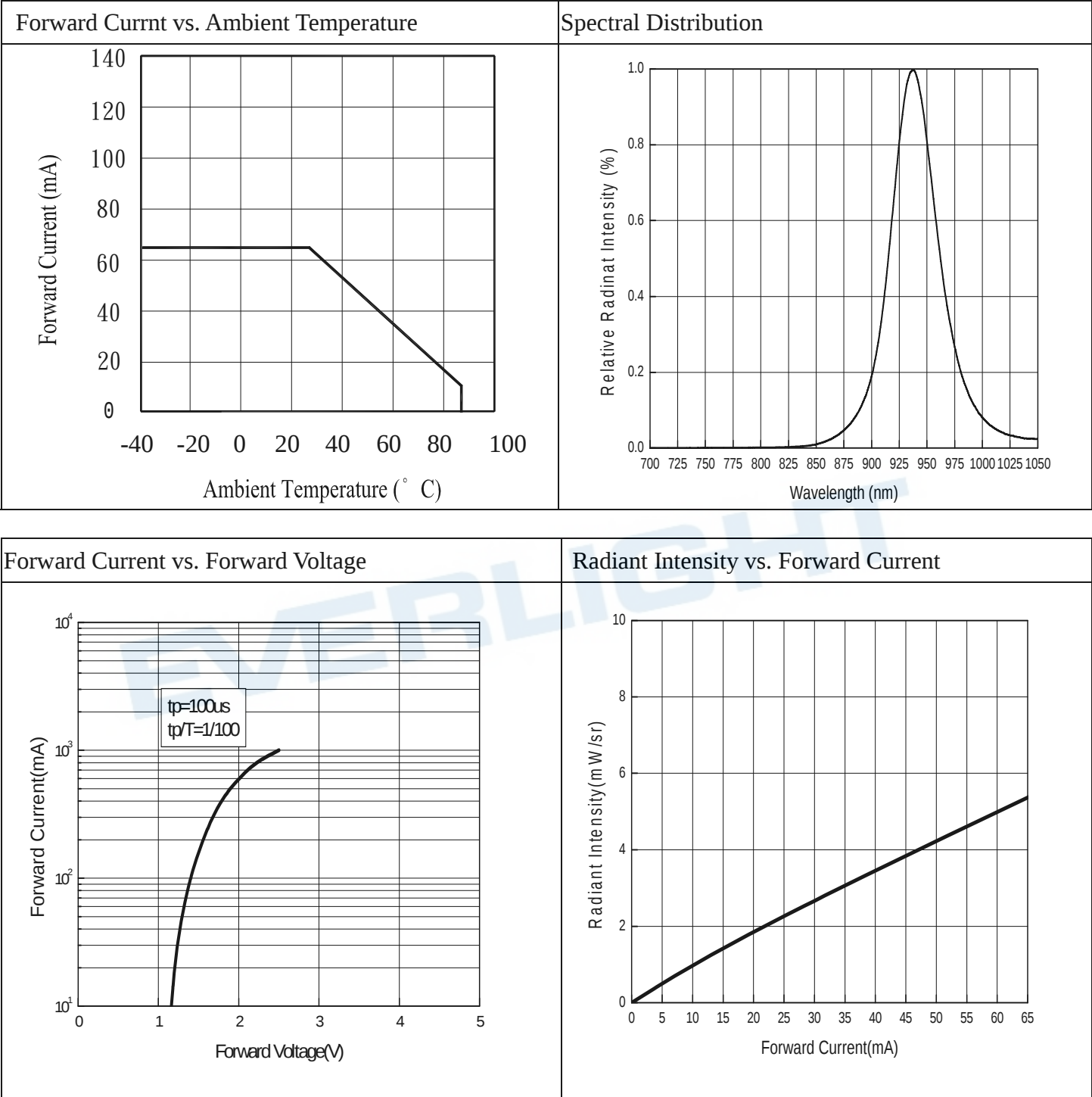
Rank

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

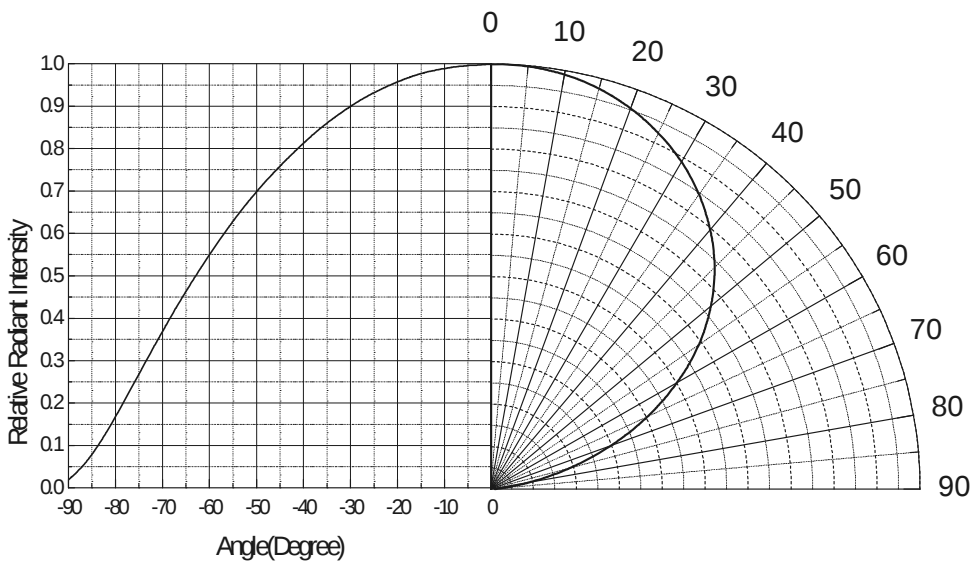
Unit : mW/sr

Bin Number	G	H
Min	1.0	2.0
Max	2.5	3.5

Typical Electrical/Optical/Characteristics Curves for IR



Relative Radiant Intensity vs. Angular Displacement



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● Precautions For Use

1. Over-current-proof

Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

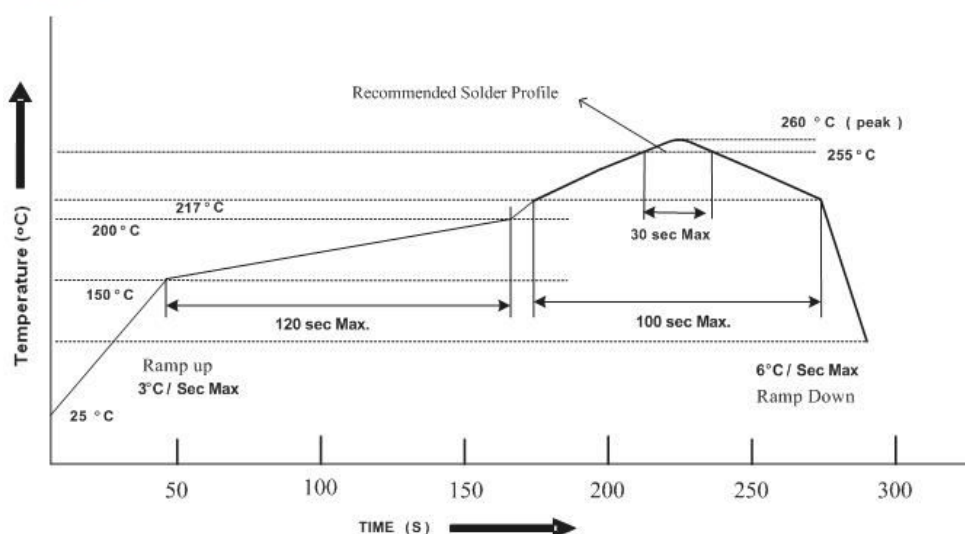
2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment : 60±5°C for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile

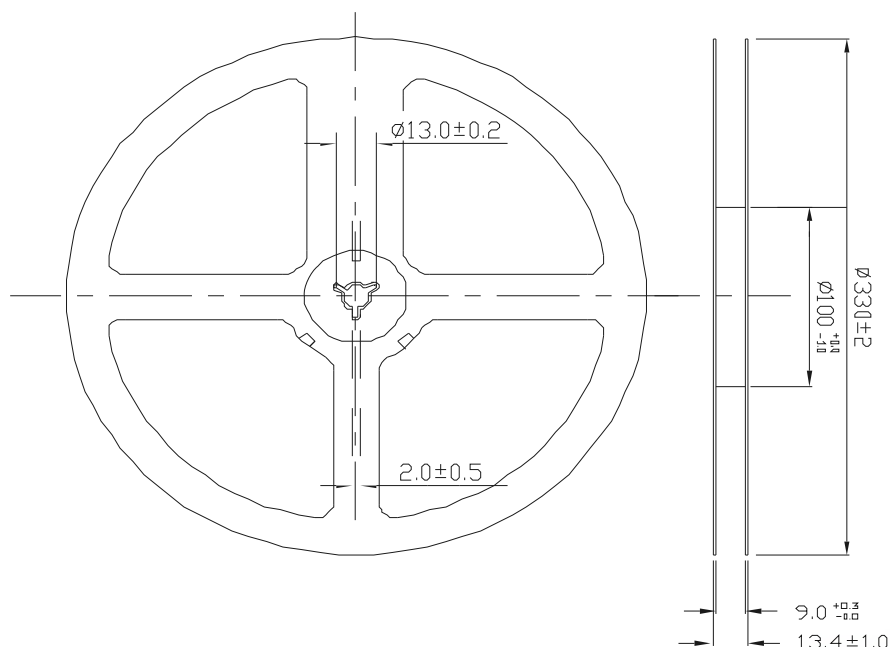


3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

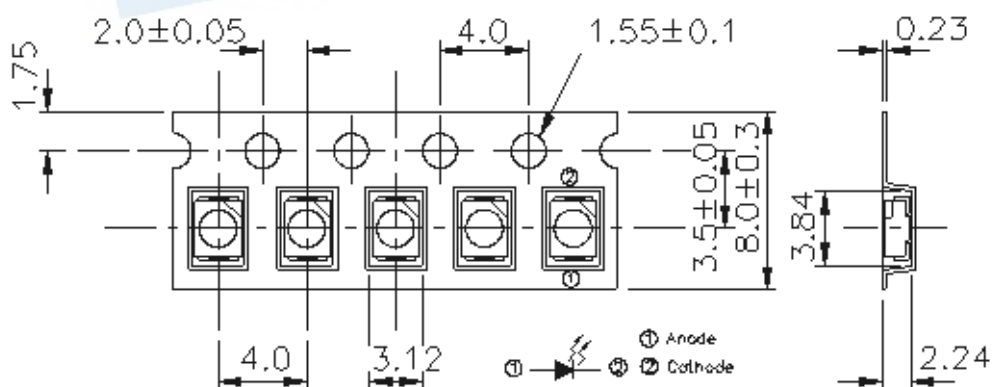
3.4 After soldering, do not warp the circuit board.

Package Dimensions



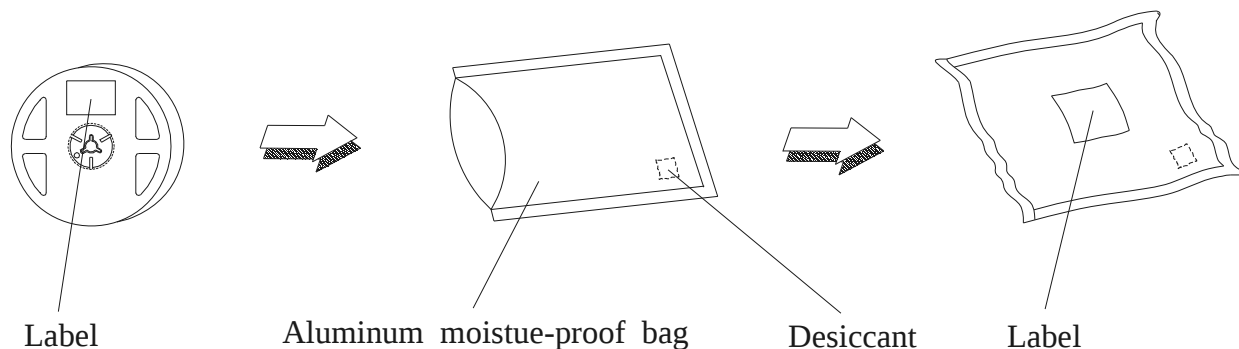
Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit = mm

2. Carrier Tape Dimensions: (Quantity: 8000pcs/reel)



Note: The tolerances unless dimension is $\pm 0.1\text{mm}$, Unit = mm

Packing Procedure



Label Form Specification

RoHS		Pb		EVERLIGHT	
CPN :					
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX					
P/N :					
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX					
LOT NO :					
QTY :					
HUE :					
CAT :					
REF :					
REFERENCE :					

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

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.
4. 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 the 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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