

Technical Data Sheet

Top Infrared LED

IR67-21C/L261/S58/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/S58/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.

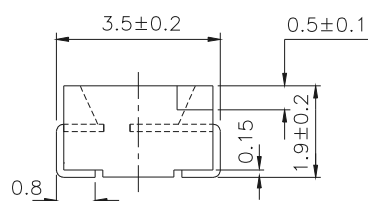
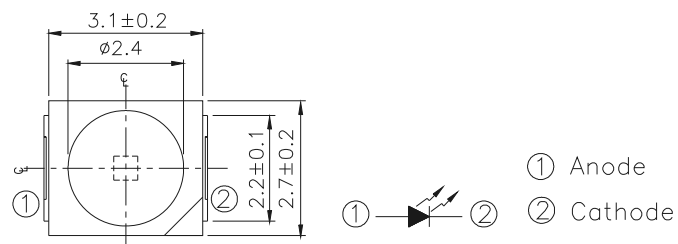
Applications

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

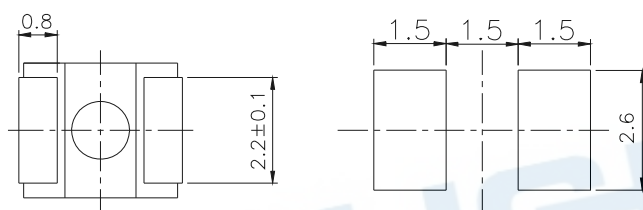
Device Selection Guide

Device No.	Chip Material	Lens Color
IR67-21C/L261/S58/TR8	GaAlA	Water clear

Package Dimensions



For reflow soldering (Proposal)



Notes: 1.All dimensions are in millimeters
2.Tolerances unless dimensions ± 0.1 mm

Absolute Maximum Ratings (Ta=25°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~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Soldering Temperature *3	T _{sol}	260	°C
Power Dissipation at(or below)	P _d	130	mW
25°C Free Air Temperature	R _{thj-a}	400	°C/W

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

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

*3:Soldering time ≤ 5 seconds.

Electro-Optical Characteristics (Ta=25°C unless specified otherwise)

Parameter	Symbol	Min.	Typ.*	Max.	Unit	Condition
		1.0	2.0	3.5		I _F =20mA
Radiant Intensity	I _E	4	8	--	mW/sr	I _F =100mA Pulse Width ≤ 100μs, Duty ≤ 1%
Total Radiated Power	P _O	--	20	--	mW	I _F =100mA
Peak Wavelength	λ _p	--	940	--	nm	I _F =20mA
Spectral Bandwidth	Δλ	--	50	--	nm	I _F =20mA
		--	1.20	1.60		I _F =20mA
Forward Voltage	V _F	--	1.45	1.80	V	I _F =100mA Pulse Width ≤ 100μs, Duty ≤ 1%
Reverse Current	I _R	--	--	10	μA	V _R =5V
View Angle	2θ1/2	--	120	--	deg	I _F =20mA
Active chip area	A		0.122		mm ²	----
Dimensions of the active chip area	L×W		0.350*0.350		mm×mm	----

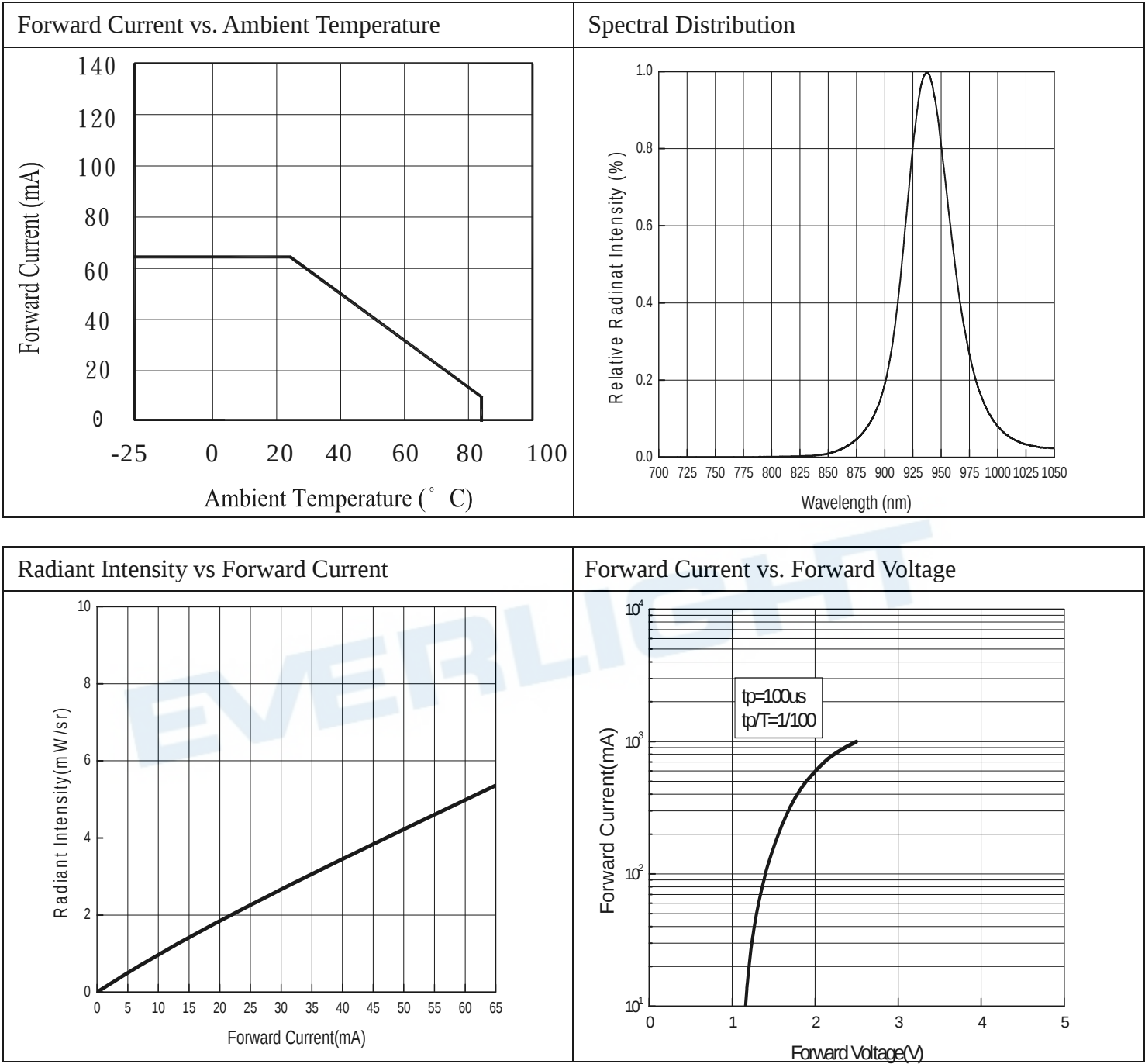
Rank

Condition : I_F=20mA

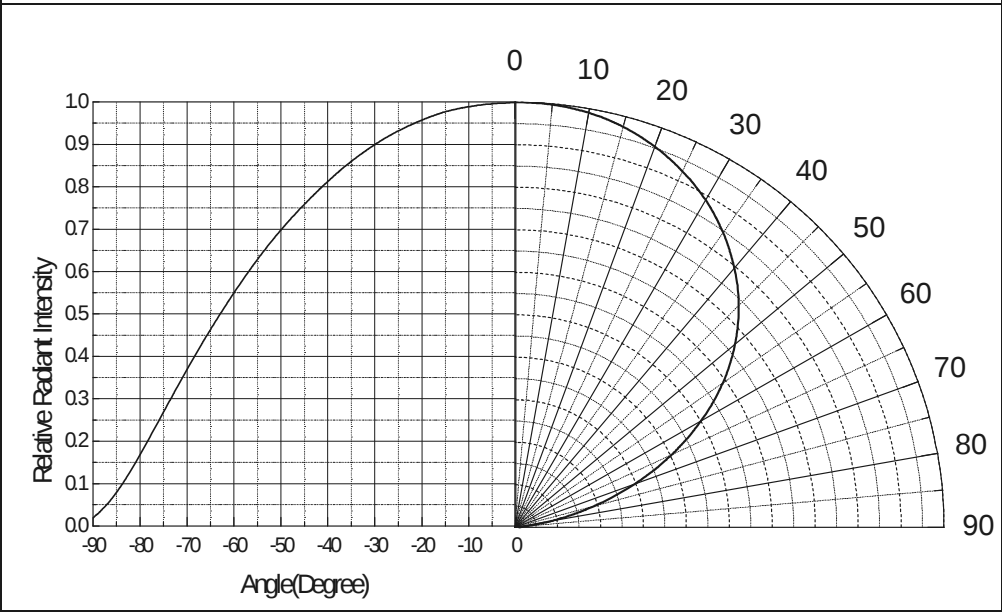
Unit : mW/sr

Bin Number	G	H.
Min	1.0	2.0
Max	2.5	3.5

Typical Electrical/Optical/Characteristics Curves



Relative Radiant Intensity vs. Angular Displacement



EVERLIGHT

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 60%RH or less.

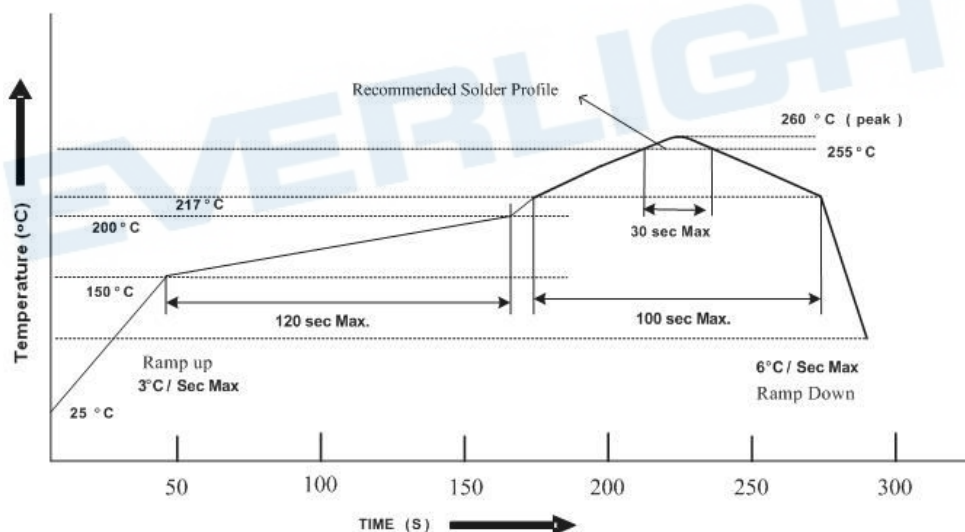
2.5 The LEDs should be used within 168 hours (7 days) after opening the package

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 Min. 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



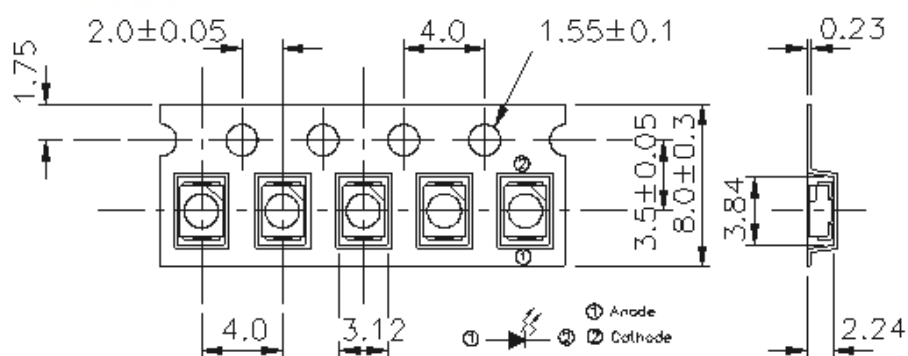
3.2 Reflow soldering should not be done more than two times.

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

3.4 After soldering, do not warp the circuit board.

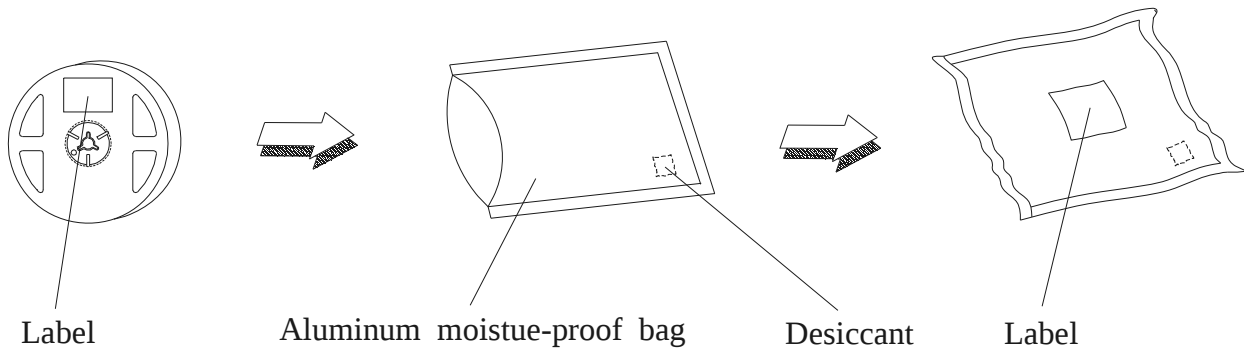
Technical drawing of a circular manhole cover. The top view shows a circular cover with a central circular opening. The central opening has a diameter of $\varnothing 13.0 \pm 0.2$. The cover is divided into four quadrants by a cross-shaped opening. The thickness of the cover is indicated as 2.0 ± 0.5 . The bottom view shows the underside of the cover, with a central circular opening of diameter $\varnothing 100 \pm 1.0$. The overall diameter of the cover is $\varnothing 330 \pm 2$. The drawing includes dimension lines and arrows indicating the measurement points.

Carrier Tape Dimensions:(Quantity: 2000pcs/reel)



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

Packing Procedure



Label Form Specification

RoHS		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.
5. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.