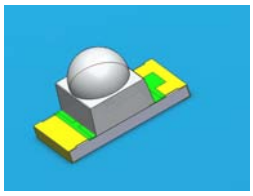
DATASHEET

1.6mm round Subminiature Infrared LED

IR26-21C/L110/TR8



Features

- High reliability
- Small double-end package
- Peak wavelengthλp=940nm
- Package in 8mm tape on 7“diameter reel
- Low forward voltage
- 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)

Descriptions

- IR26-21C/L110/TR8 is an infrared emitting diode in miniature SMD Package which is molded in a water clear plastic with right angle lens
- The device is Spectrally matched with silicon LEDs and LEDs

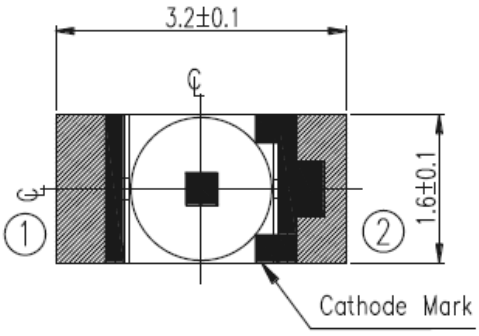
Applications

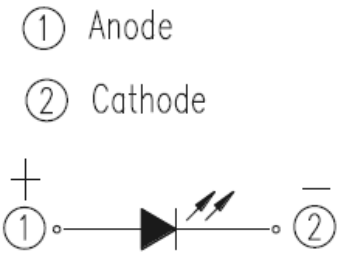
- PCB mounted infrared sensor
- Infrared emitting for miniature light barrier
- Floppy disk drive
- Optoelectronic switch
- Smoke detector

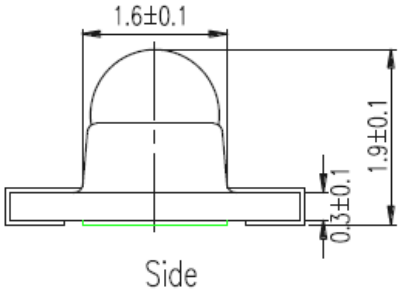
Device Selection Guide

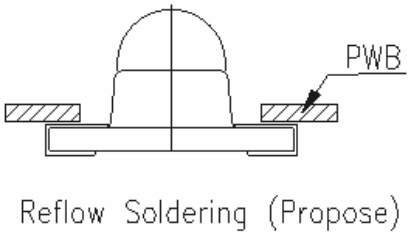
Part Category	Chip Material	Lens Color
IR	GaAlAs	Water Clear

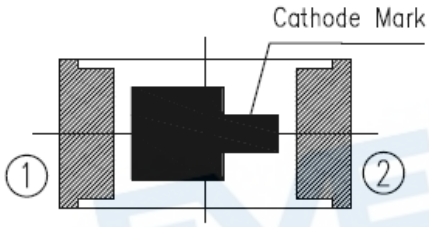
Package Dimensions

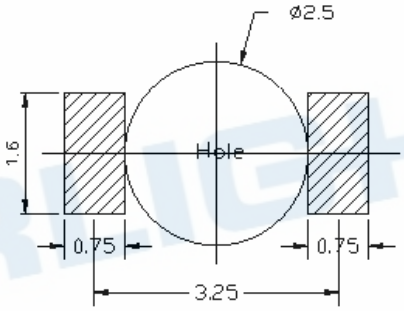










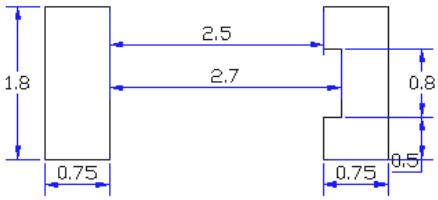


Notes: 1.All dimensions are in millimeters

Notes: 2.Tolerances unless dimensions ±0.1mm

3.Below is stencil design suggestion (Reference):

- Solder paste : Sn/Ag3.0/Cu0.5
- Stencil thickness : 0.10mm
- Stencil design drawing :



4.Suggested pad dimension is just for reference only

Please modify the pad dimension based on individual need

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Units
Continuous Forward Current	IF	65	mA
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-25 ~ +85	℃
Storage Temperature	Tstg	-40 ~ +85	℃
Soldering Temperature *1	Tsol	260	℃
Electrostatic Discharge	ESDHBM	2000	V
Power Dissipation at(or below) 25℃Free Air Temperature	Pd	130	mW

Notes: *1:Soldering time≦ 5 seconds.

Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Radiant Intensity	Ie	IF=20mA	1.0	3.0	--	mW /sr
Peak Wavelength	λp	IF=20mA	--	940	--	nm
Spectral Bandwidth	Δλ	IF=20mA	--	45	--	nm
Forward Voltage	VF	IF=20mA	--	1.2	1.5	V
Reverse Current	IR	VR=5V	--	--	10	μA
View Angle	2θ1/2	IF=20mA	--	20	--	deg

Notes:*1:Reverse Voltage(VR) Condition is applied to IR test only The device is not designed for reverse operation

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs Ambient Temperature.

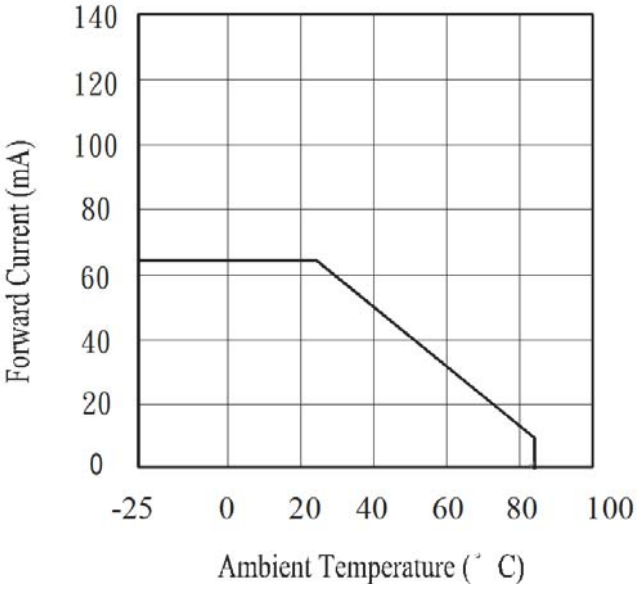


Fig.2 Spectral Distribution

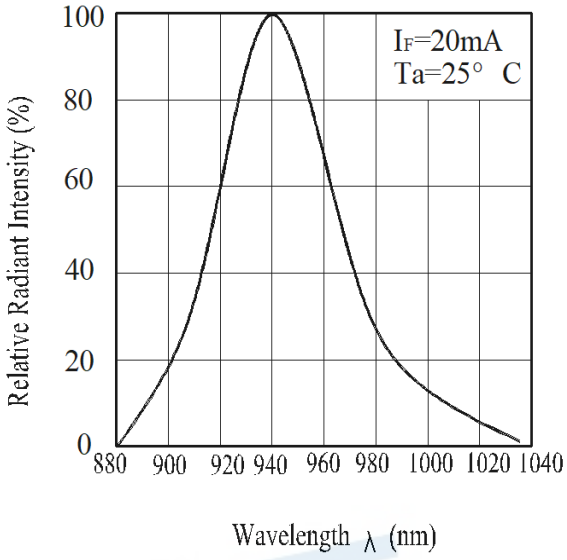


Fig.3 Forward Current vs Forward Voltage .

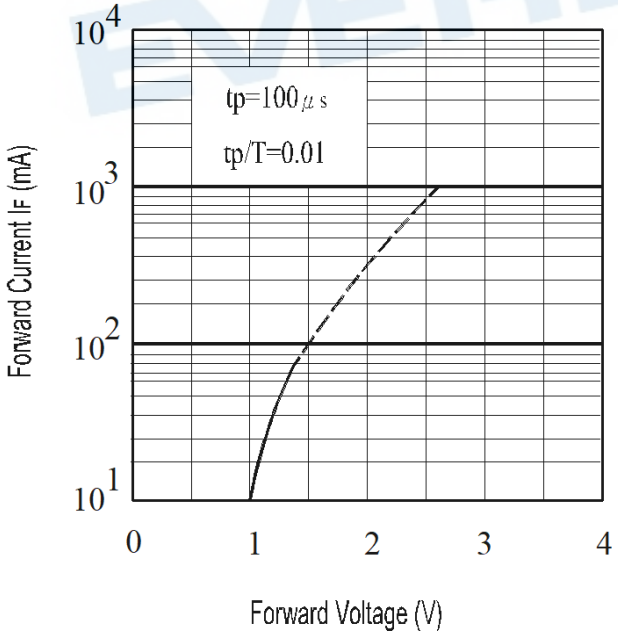
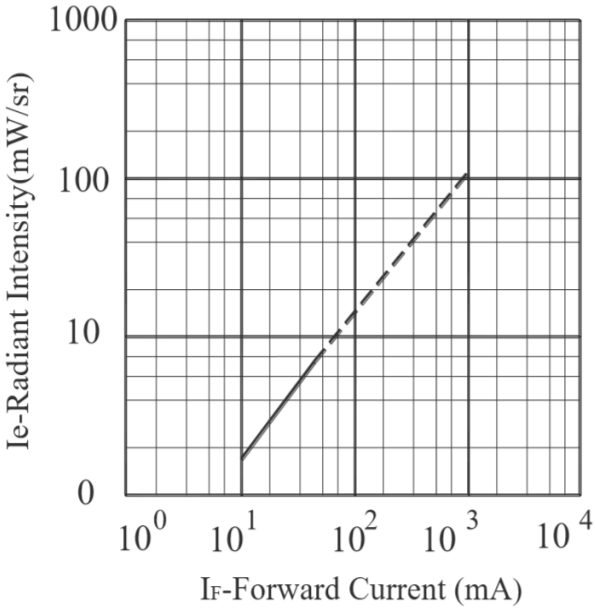


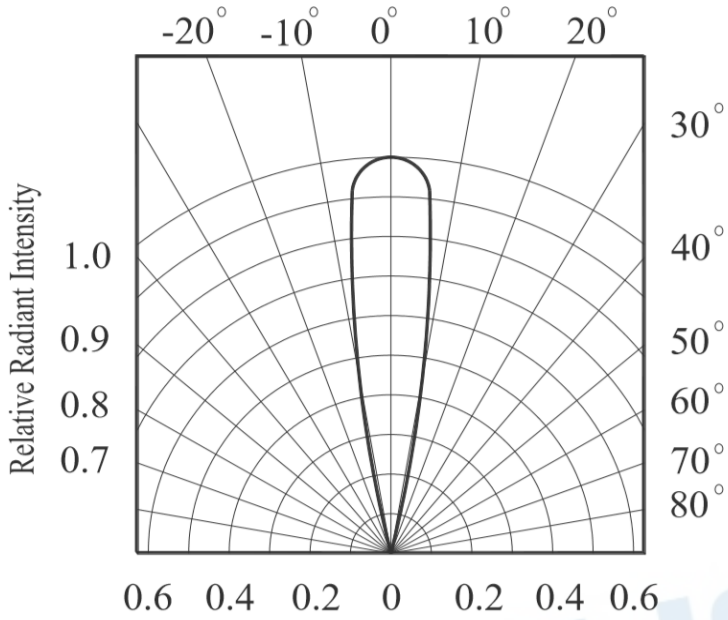
Fig.4 Relative Intensity vs Forward Current.



Note：The graphs shown in this datasheet are representing typical data only and do not show guaranteed valu

Typical Electro-Optical Characteristics Curves

Fig.5 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 10℃~30℃ and 90%RH or less.

2.3 The LEDs suggested be used within one year.

2.4 After opening the package, the devices must be stored at 10°C~30°C and ≤ 60%RH, and used within 168 hours (floor life). If unused LEDs remain, it should be stored in moisture proof packages.

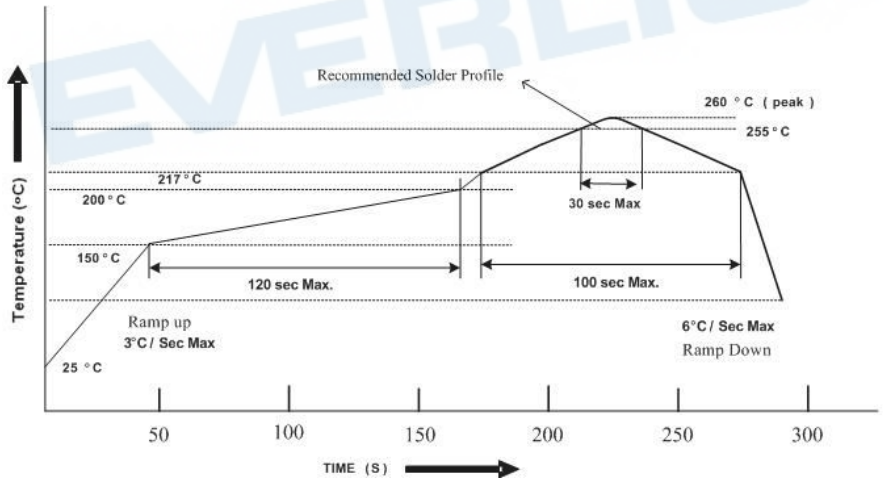
2.5 If the moisture absorbent material (desiccant material) has faded or unopened bag has exceeded the shelf life or devices (out of bag) have exceeded the floor life, baking treatment is required.

2.6 If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure or recommend the following conditions:

96 hours at 60°C ± 5°C and < 5 % RH (reeled/tubed/loose units)

3. Soldering Condition

3.1 Lead 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.

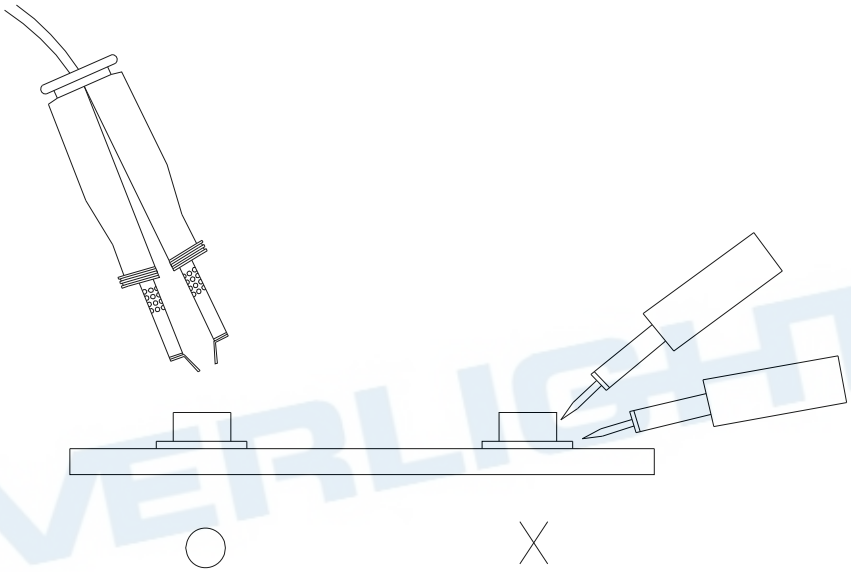
3.4 After soldering, do not warp the circuit board.

4.Soldering Iron

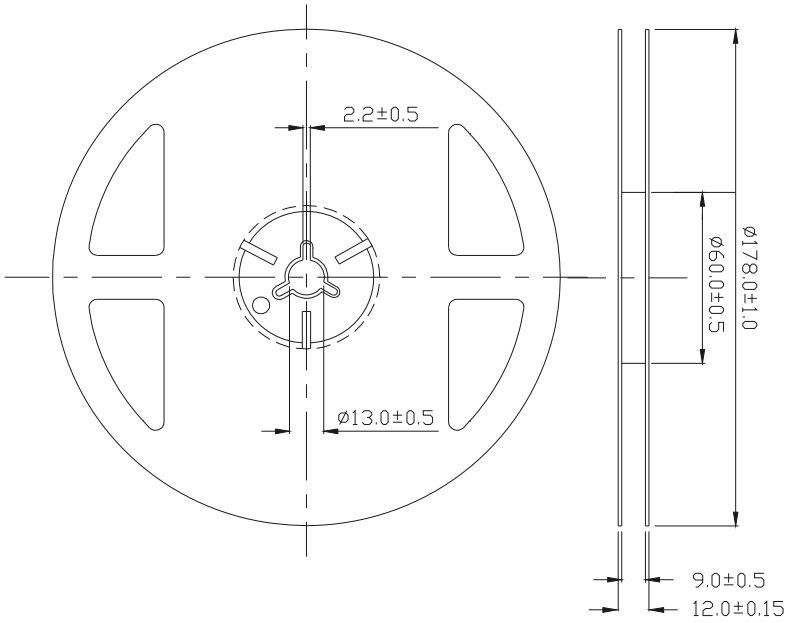
Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5.Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

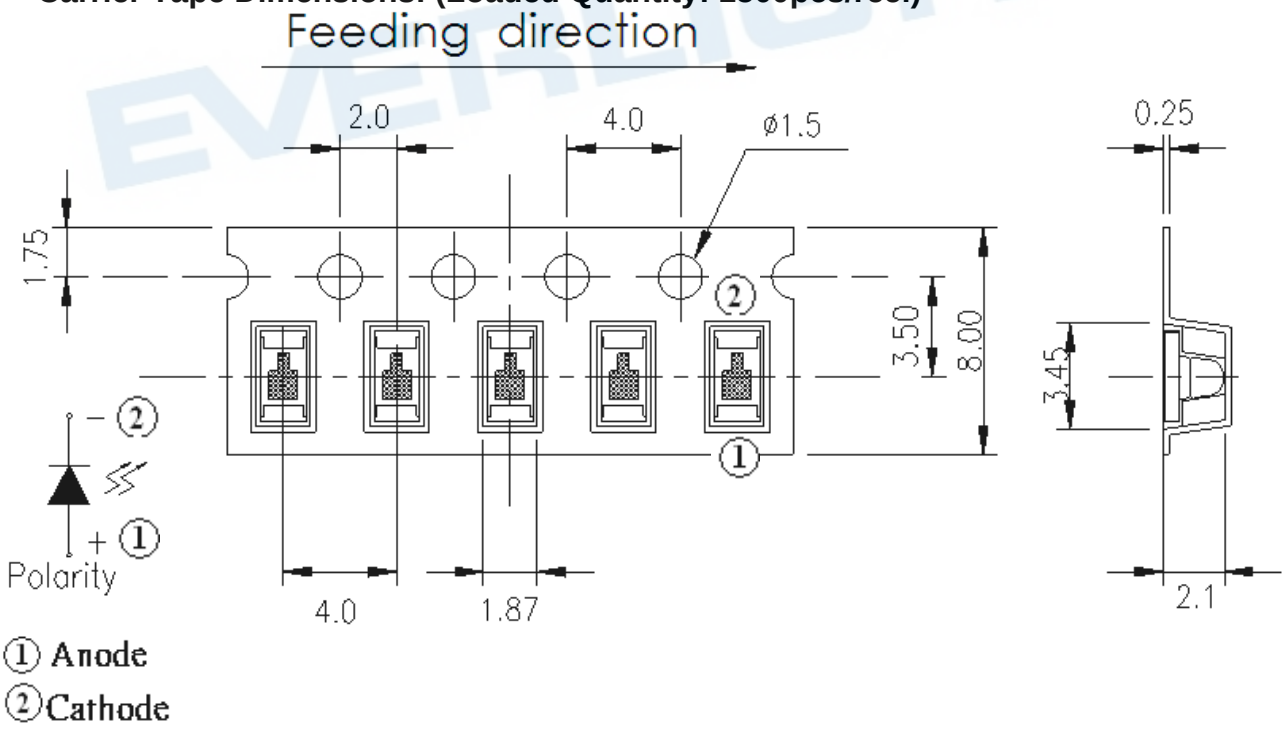


Package Dimensions



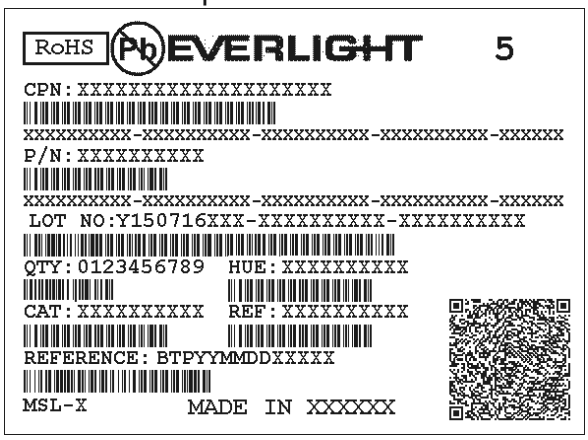
Note: The tolerances unless mentioned are ±0.1mm, Unit: mm

Carrier Tape Dimensions: (Loaded Quantity: 1500pcs/reel)



Note: The tolerances unless mentioned is ±0.1mm, Unit = mm

Label Form Specification



CPN: Customer's Production Number

P/N : Production Number

LOT No: Lot Number

QTY: Packing Quantity

HUE: Peak Wavelength

CAT: Ranks

REF: Reference

MSL-X: MSL Level

Made In: Manufacture 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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PS: Data sheet valid time:2024/11/21~2024/12/21