DATASHEET

Technical Data Sheet
1.6mm round Subminiature Side Looking Infrared LED
IR26-51C/L110/TR8

Features

- Small double-end package
- Low forward voltage
- Good spectral matching to Si photo detector
- Package in 8mm tape on 7″ diameter reel.
- 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

- IR26-51C/L110/TR8 is an infrared emitting diode in miniature SMD package which is molded in a water clear plastic with spherical top view lens. The device is spectrally matched with silicon photodiode and phototransistor.

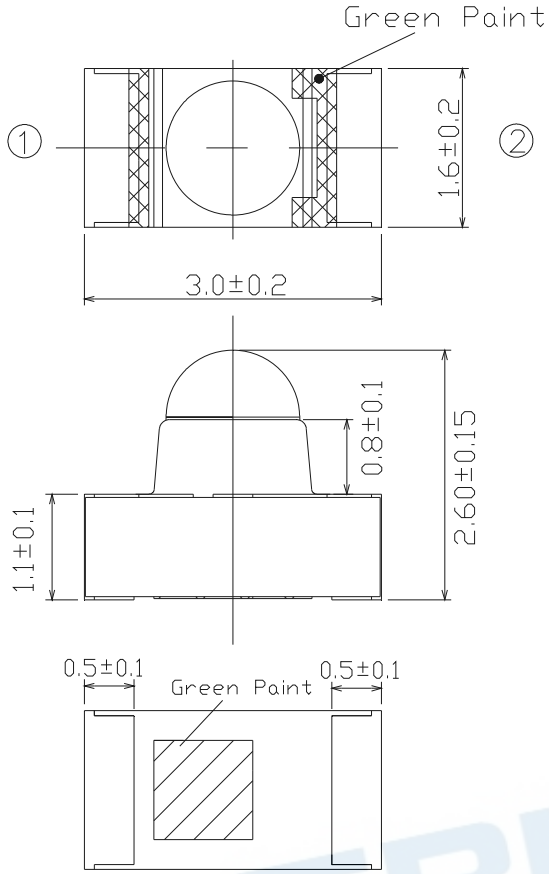
Applications

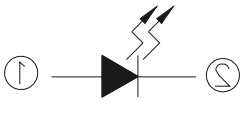
- PCB mounted infrared sensor
- Infrared emitting for miniature light barrier
- Floppy disk drive
- Optoelectronic switch

Device Selection Guide

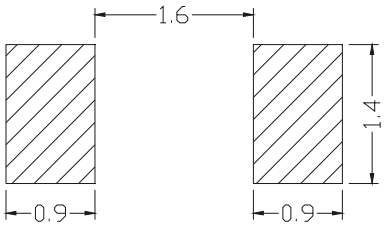
Device No.	Chip Material	Lens Color
IR26-51C/L110/TR8	GaAlAs	Water Clear

Package Dimensions





① Anode
② Cathode



Recommended Soldering Pattern
for Side Looker

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

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I_F	65	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-25 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +100	℃
Soldering Temperature *1	T_{sol}	260	℃
Power Dissipation at(or below) 25℃ Free Air Temperature	P_d	130	mW

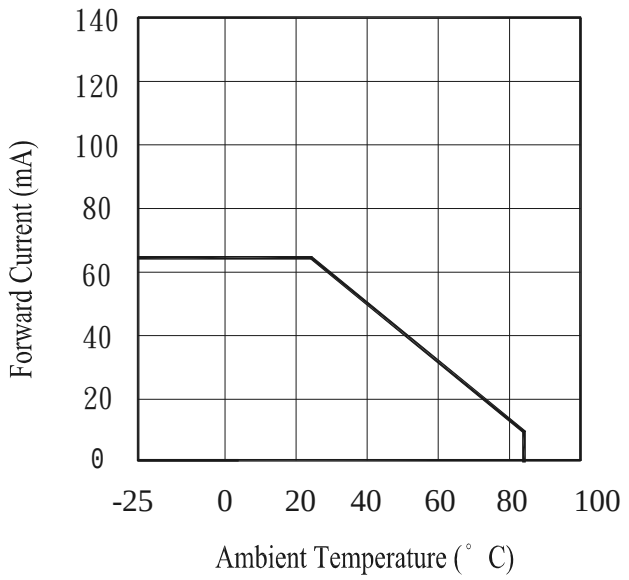
Notes: *1:Soldering time≦5 seconds.

Electro-Optical Characteristics (Ta=25℃)

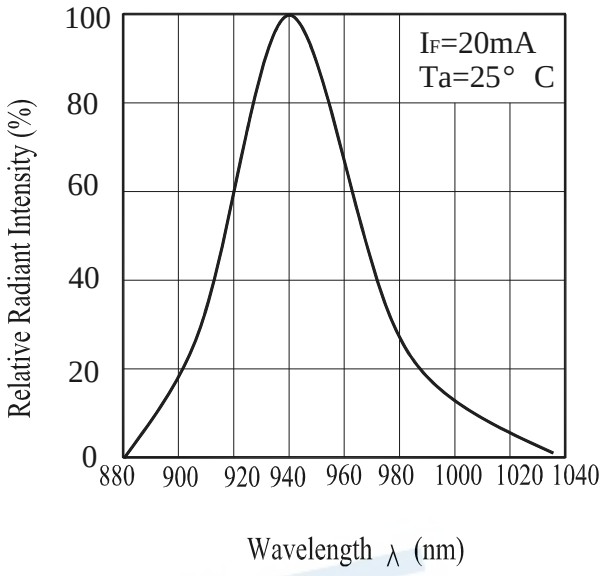
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Radiant Intensity	Ie	2.0	4.5	12.0	mW /sr	I_F=20mA
		--	15	--		I_F=100mA Pulse Width≦100 μs ,Duty≦1%
Peak Wavelength	λp	--	940	--	nm	I_F=20mA
Spectral Bandwidth	Δλ	--	45	--	nm	I_F=20mA
Forward Voltage	V_F	1.0	1.2	1.5	V	I_F=20mA
		--	1.5	1.8		I_F=100mA Pulse Width≦100 μs ,Duty≦1%
Reverse Current	I_R	--	--	10	μA	V_R=5V
View Angle	$2\theta_{1/2}$	--	20	--	Deg.	I_F=20mA

Typical Electrical/Optical/Characteristics Curves for IR

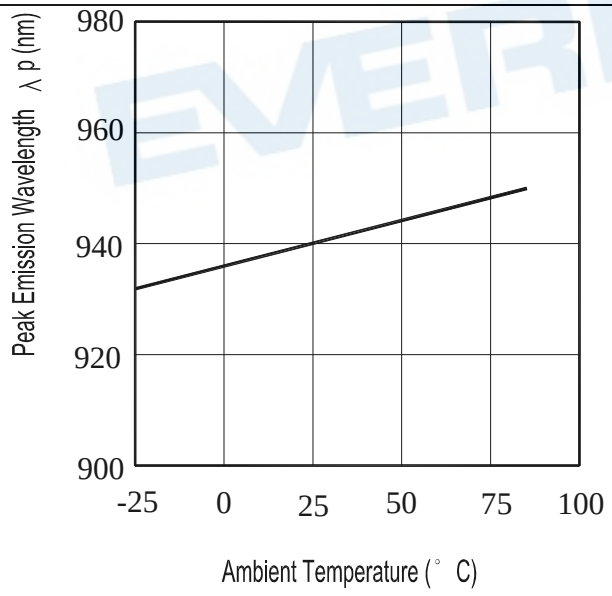
Forward Current vs. Ambient Temperature



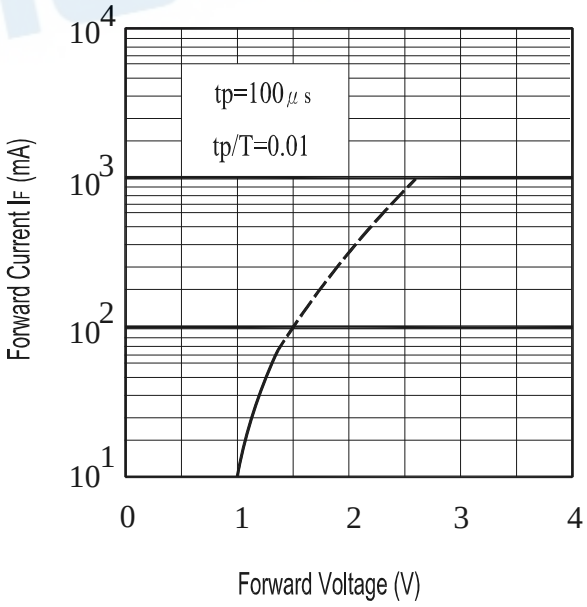
Spectral Distribution

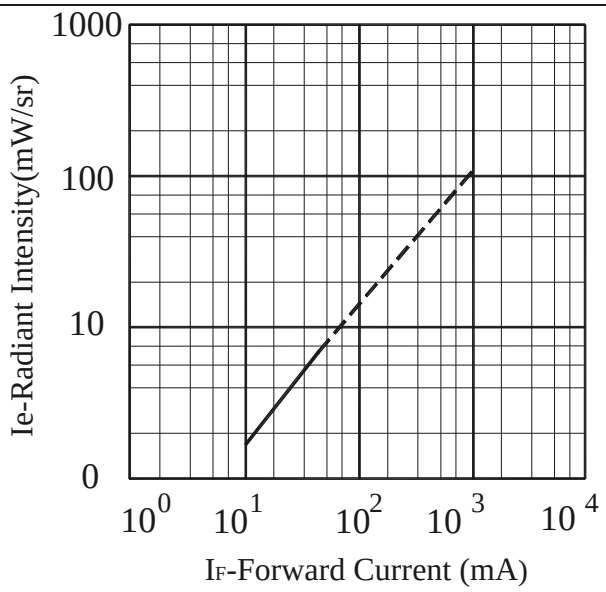
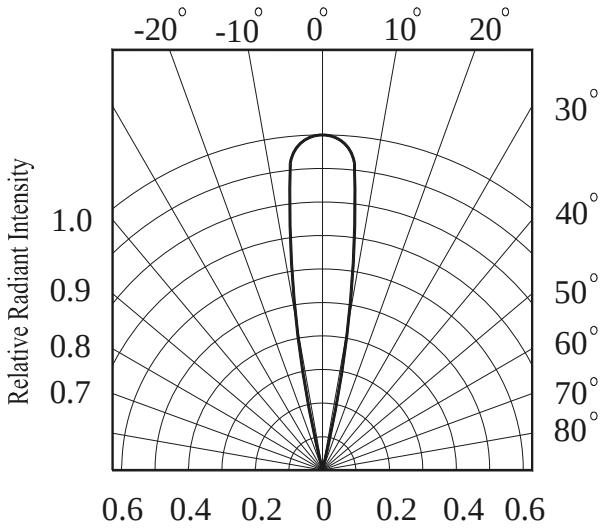


Peak Emission Wavelength vs. Ambient Temperature



Forward Current vs. Forward Voltage



Relative Intensity vs. Forward Current	Relative Radiant Intensity vs. Angular Displacement
	

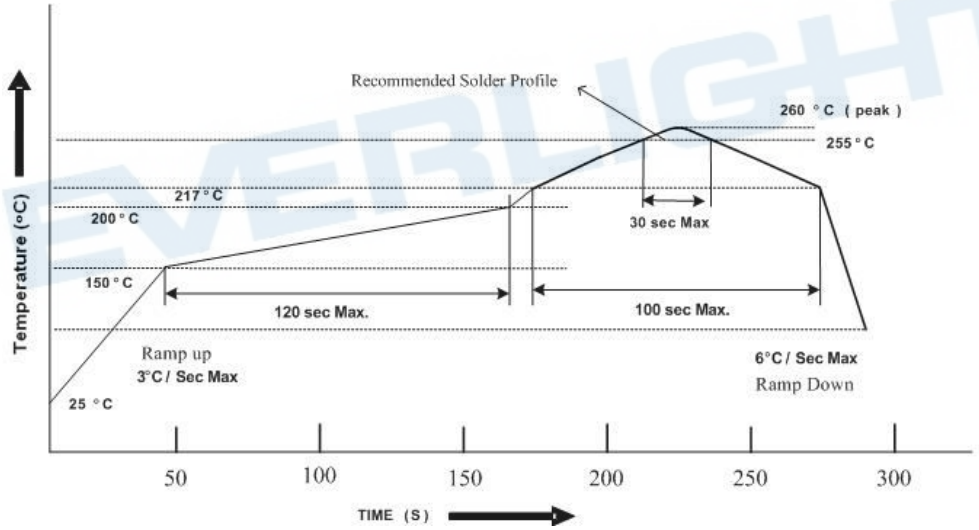
Precautions For Use

1. Over-current-proof

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

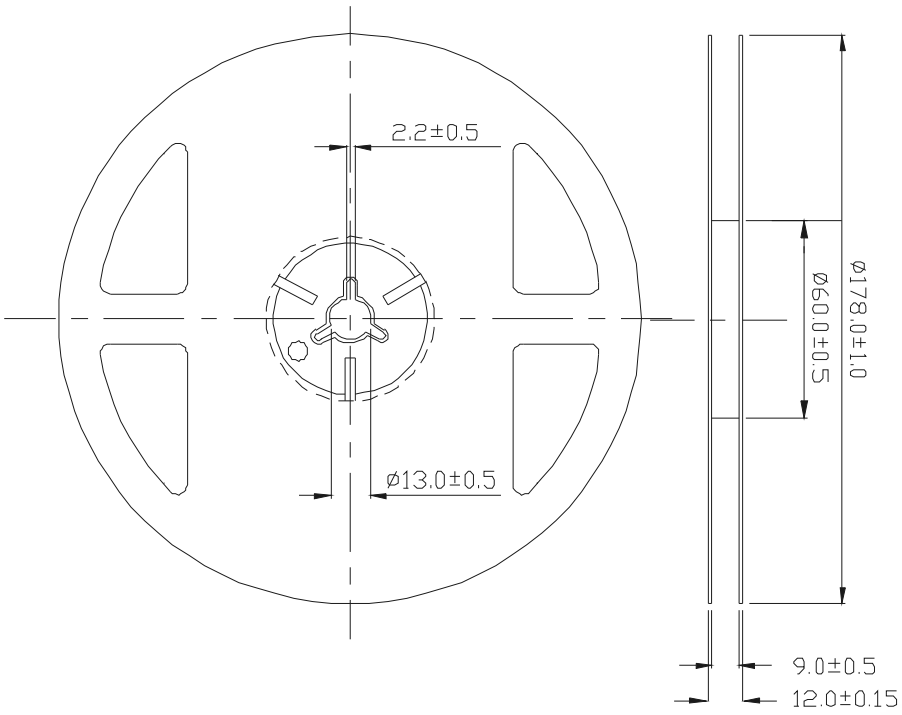
2. Storage
   2.1 Do not open moisture proof bag before the products are ready to use.
   2.2 Before opening the package, the LEDs should be kept at 30℃ or less and 90%RH or less.
   2.3 The LEDs should be used within a year.
   2.4 After opening the package, the LEDs should be kept at 30℃ or less and 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℃ for 24 hours.

3. Soldering Condition
   3.1 Pb-free solder temperature profile



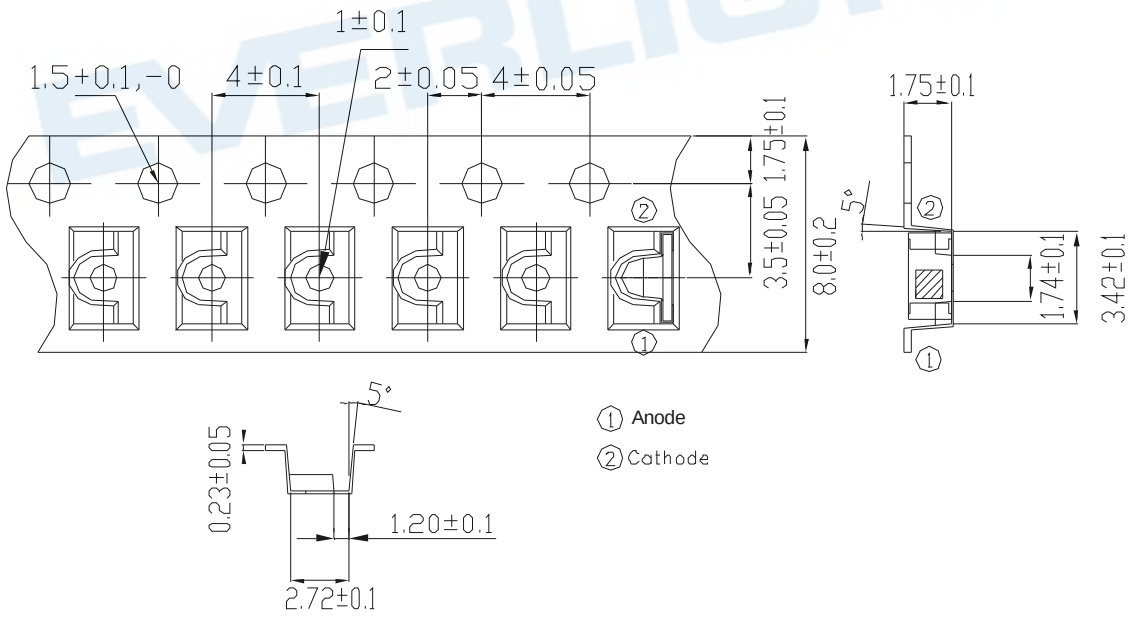
   3.2 Reflow soldering should not be done more than two times.
   3.3 When soldering, do not put stress on the LEDs during heating.
   3.4 After soldering, do not warp the circuit board.

Package Dimensions



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

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



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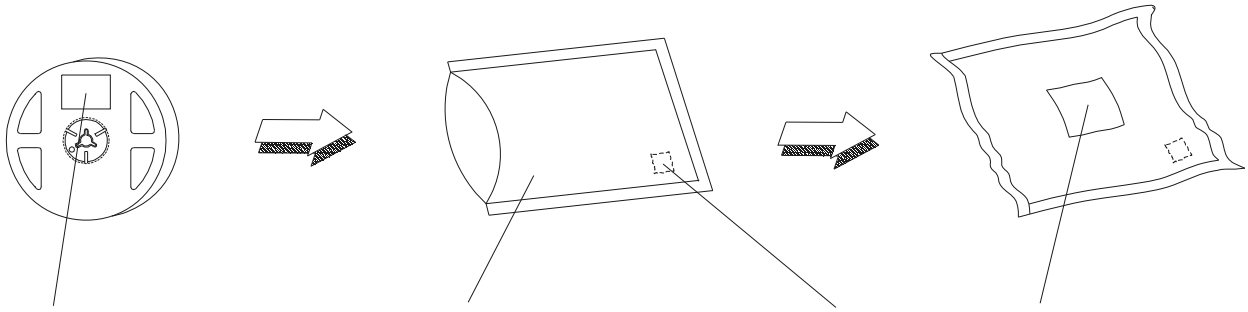
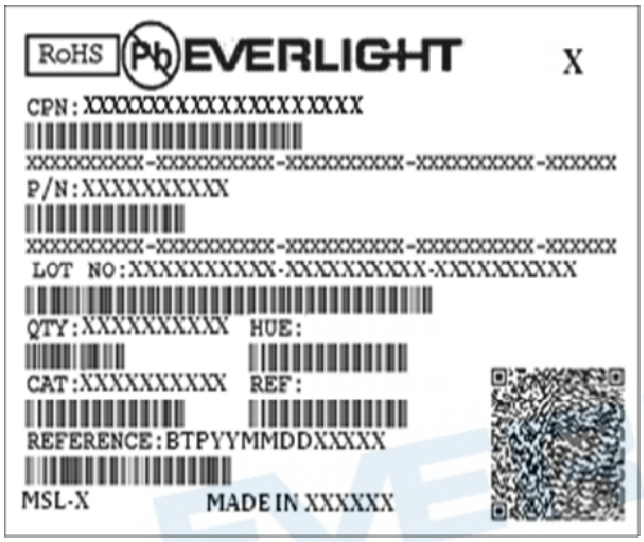
Packing Procedure



Label Form Specification



CPN: Customer's Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks
HUE: Peak Wavelength
REF: Reference
LOT No: Lot Number
Production Place: MADE IN XXXXXXXXX

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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