



ZIR-2012C-10A-Z3

0805 Package Infrared Chip LED

Descriptions

ZIR-2012C-10A-Z3 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.

Features

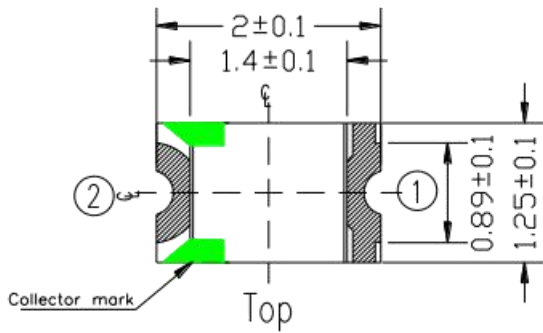
- Small double-end package
- Low forward voltage
- Good spectral matching to Si photo detector
- Pb free
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH
- Compliance Halogen Free. (Br < 900 ppm, Cl < 900 ppm, Br+Cl < 1500 ppm)

Applications

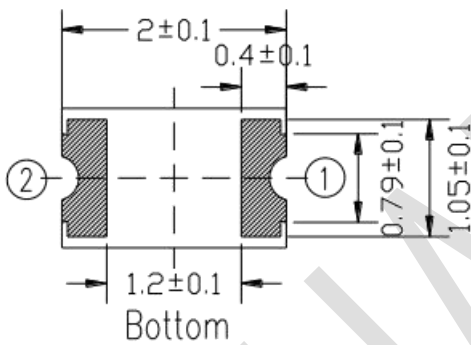
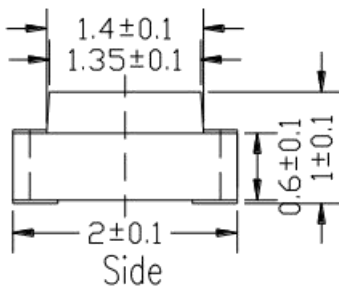
- PCB mounted infrared sensor
- Infrared emitting for miniature light barrier
- Floppy disk drive
- Optoelectronic switch
- Smoke detector



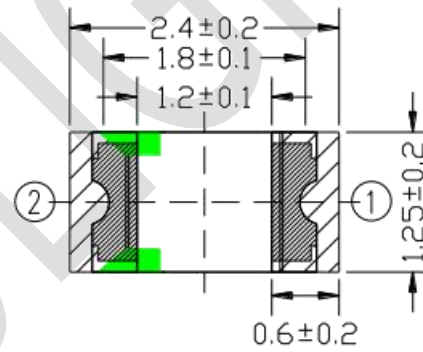
Package Dimensions



① Anode
② Cathode



Recommend Sodering Pad



- Notes:**
1. All dimensions are in millimeters
 2. Tolerances unless dimensions ± 0.1 mm
 3. Suggested pad dimension is just for reference only
Please modify the pad dimension based on individual need



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Units
Continuous Forward Current	I _F	65	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
Soldering Temperature *1	T _{sol}	260	°C
Power Dissipation at(or below) 25°C Free Air Temperature	P _d	130	mW

Notes: *1 Soldering time \leq 5 seconds.

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Radiant Intensity	I _e	I _F =20mA	0.2	0.8	--	mW/sr
Peak Wavelength	λ_p	I _F =20mA	--	940	--	nm
Spectral Bandwidth	$\Delta\lambda$	I _F =20mA	--	45	--	nm
Forward Voltage	V _F	I _F =20mA	--	1.2	1.5	V
Reverse Current	I _R	V _R =5V	--	--	10	μ A
View Angle	2 θ 1/2	I _F =20mA	--	120	--	deg



Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

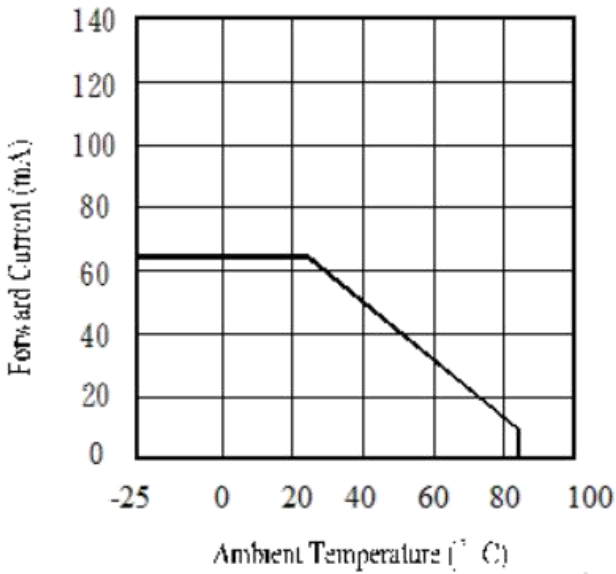


Fig.2 Spectral Distribution

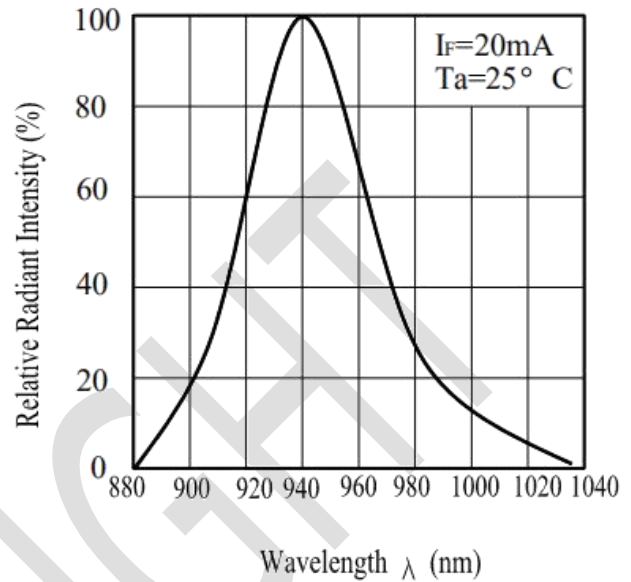


Fig.3 Forward Current vs. Forward Voltage

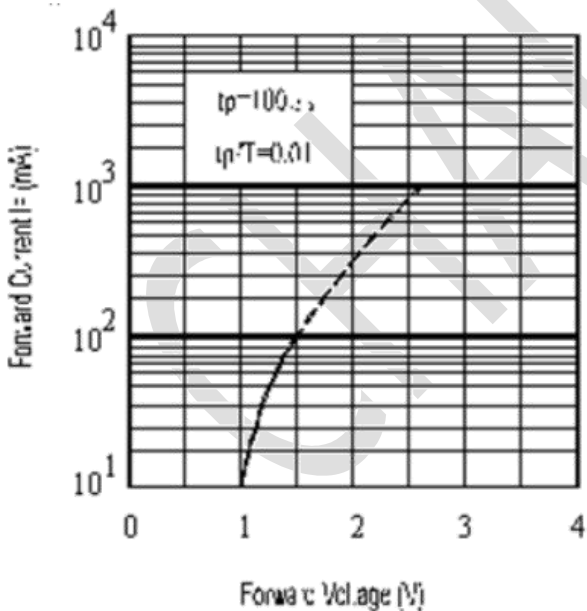
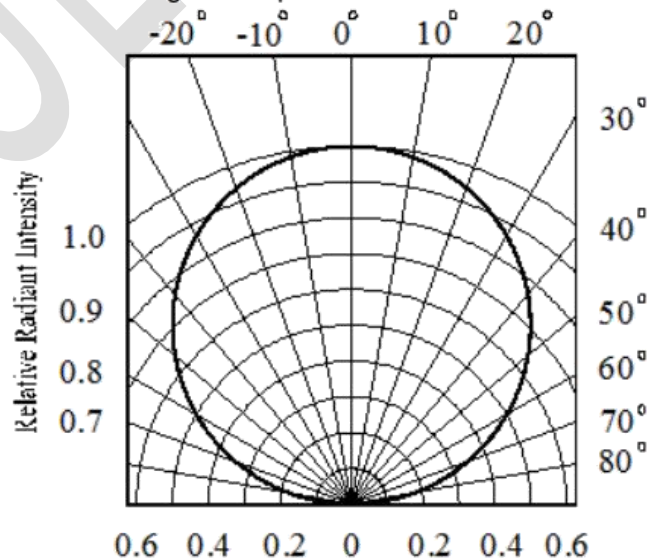
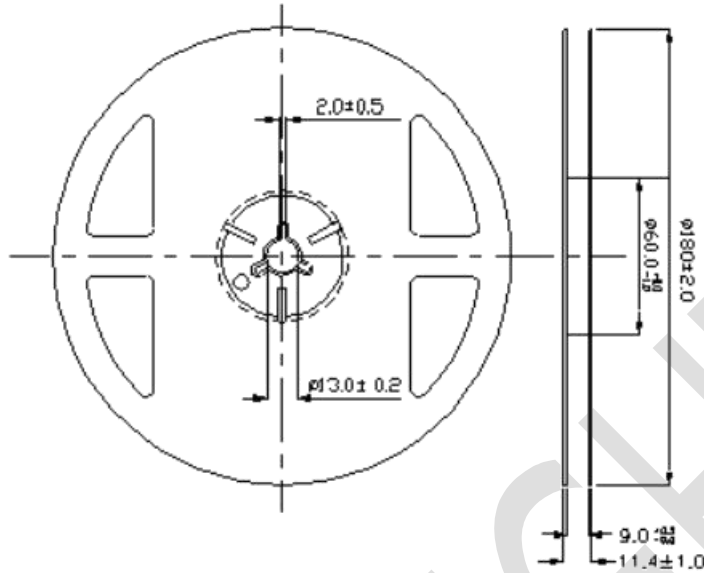


Fig.4 Relative Radiant Intensity vs. Angular Displacement



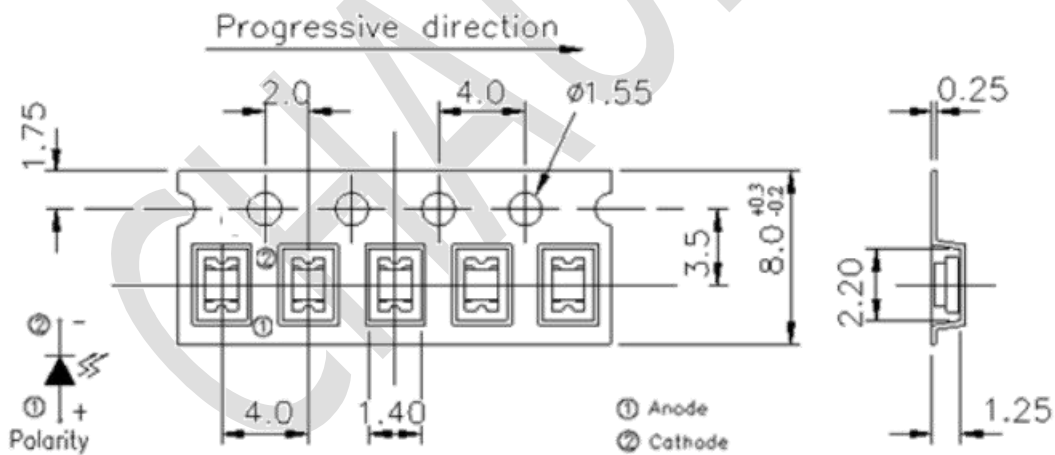


Package Dimensions



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

Carrier Taping Dimensions: (Quantity: 3000PCS/Reel)



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

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