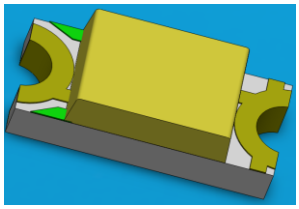
EVERLIGHT AMERICAS

DATASHEET

1206 Package Chip Infrared LED

EAIST3215A0



Features

- Small double-end package
- High reliability
- Low forward voltage
- Good spectral matching to Si photodetector
- Pb free
- The product itself will remain within RoHS compliant version.

Descriptions

EAIST3215A0 is an infrared emitting diode in miniature top view flat SMD package and it is molded in a water clear plastic. The device is spectrally matched with silicon photodiode and phototransistor.

Applications

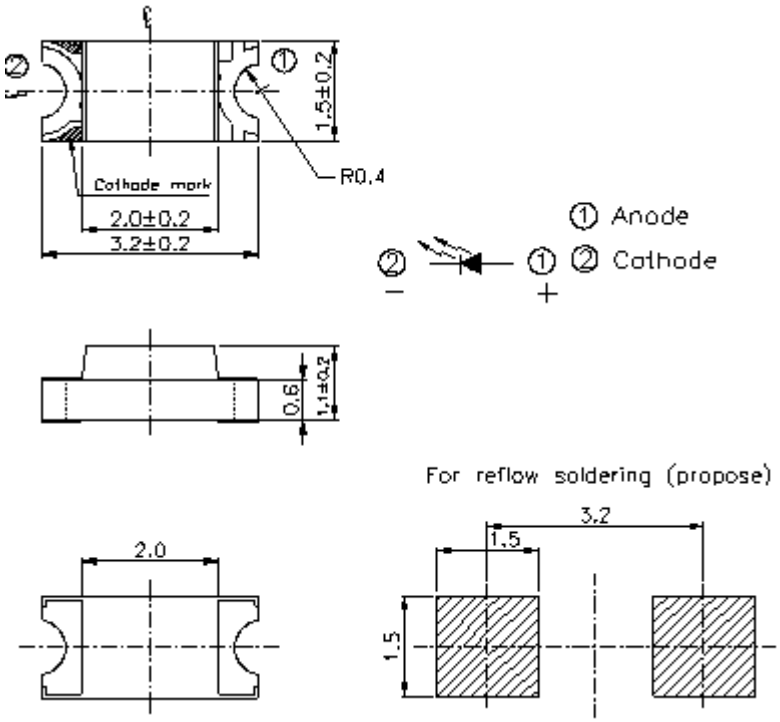
- PCB mounted infrared sensor
- Infrared emitting for miniature light barrier
- Floppy disk drive
- Optoelectronic switch
- Smoke detector

Device Selection Guide

Part Category	Chip Material	Lens Color
EAIST3215A0	GaAlAs	Water Clear

Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

Package Dimensions



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

Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Units
Continuous Forward Current	I_F	65	mA
Peak Forward Current	I_{FP}	1.0	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-25~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +85	℃
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	Condition	Min.	Typ.	Max.	Units
Radiant Intensity	I_E	I_F=20mA	0.2	0.8	--	mW/sr
Peak Wavelength	λp	I_F=20mA	--	940	--	nm
Spectral Bandwidth	Δλ	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	μA
View Angle	2θ1/2	I_F=20mA	--	160	--	deg

Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

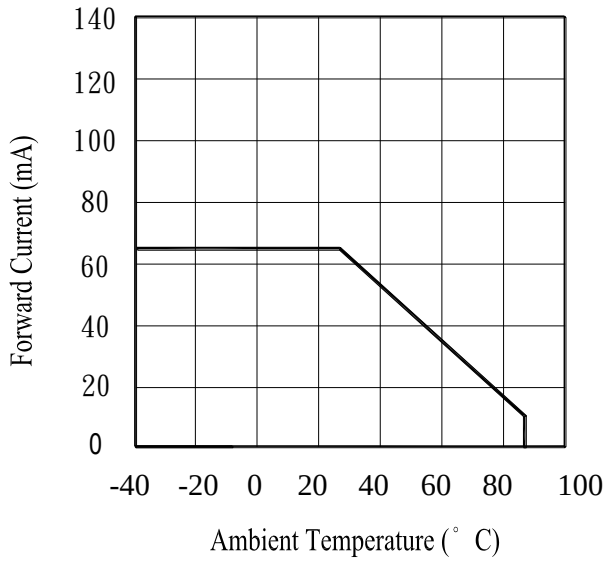


Fig.2 Spectral Distribution

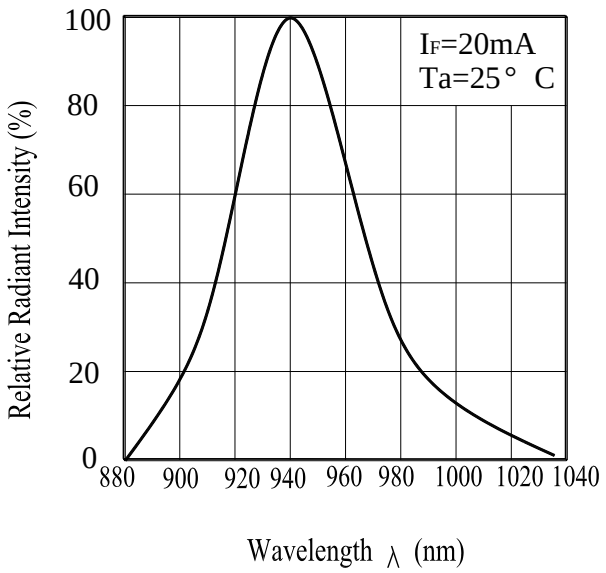


Fig.3 Forward Current vs. Forward Voltage

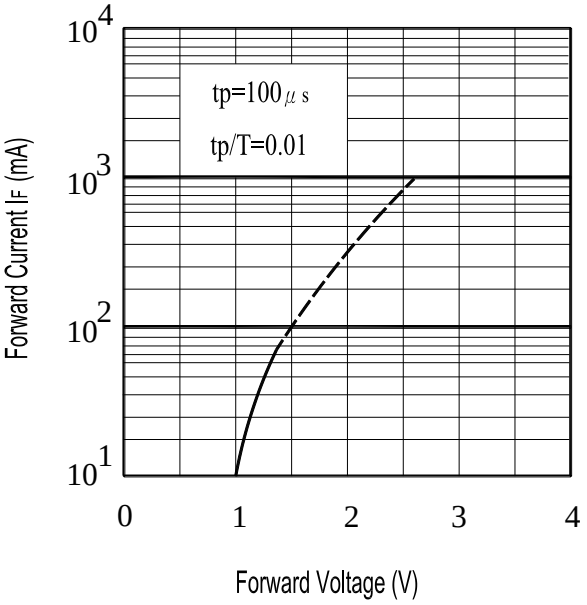
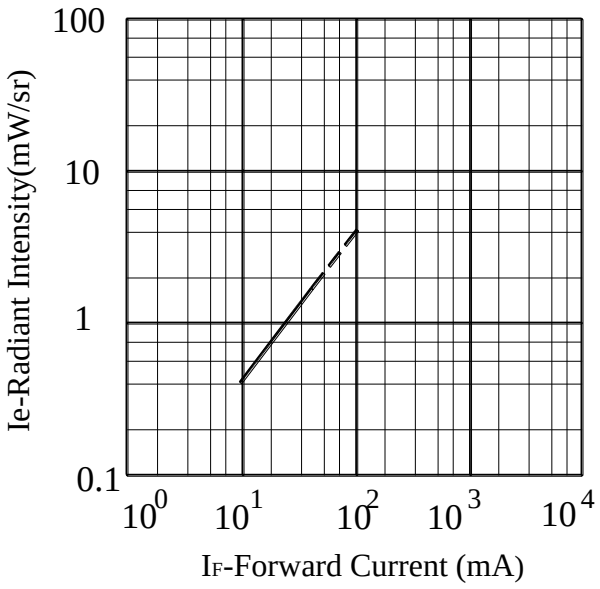


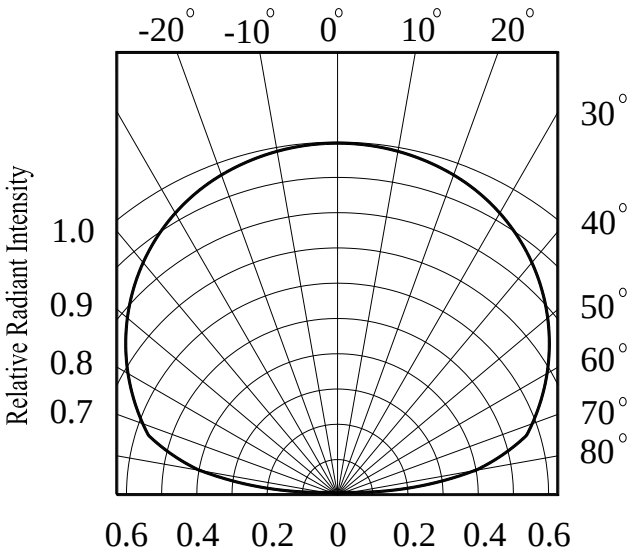
Fig.5 Relative Intensity vs. Forward Current



Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

Typical Electro-Optical Characteristics Curves

Fig.5 Relative Radiant Intensity vs.
Angular Displacement



Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

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 60%RH or less.

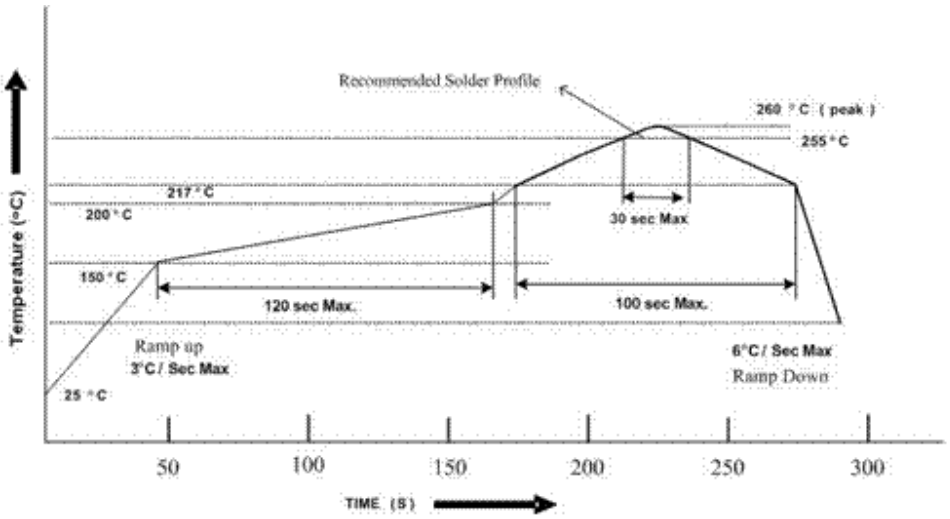
2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

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℃ for 48 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.

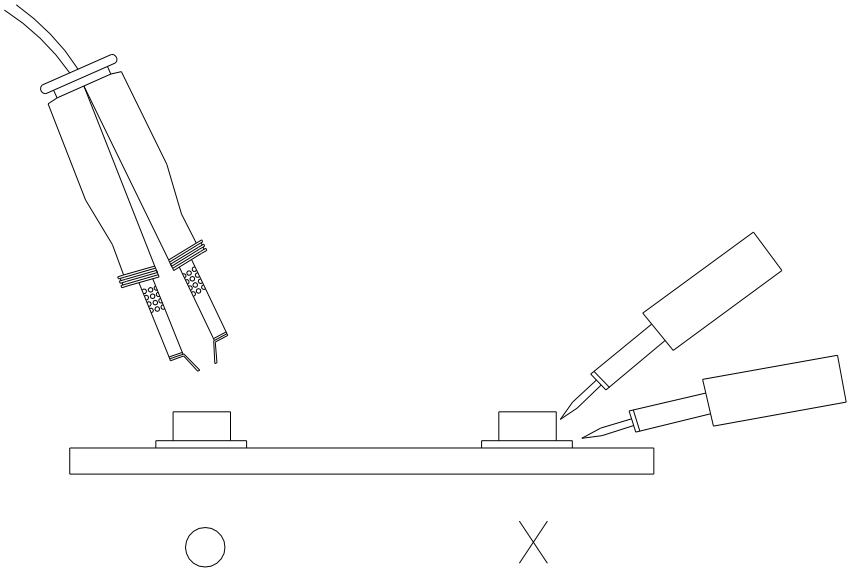
Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. 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.

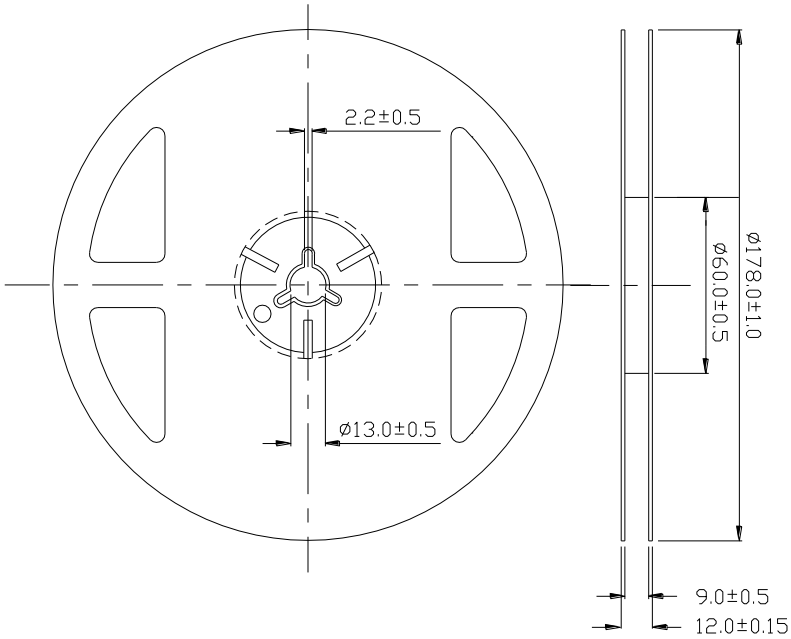
5. Repairing

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.



Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

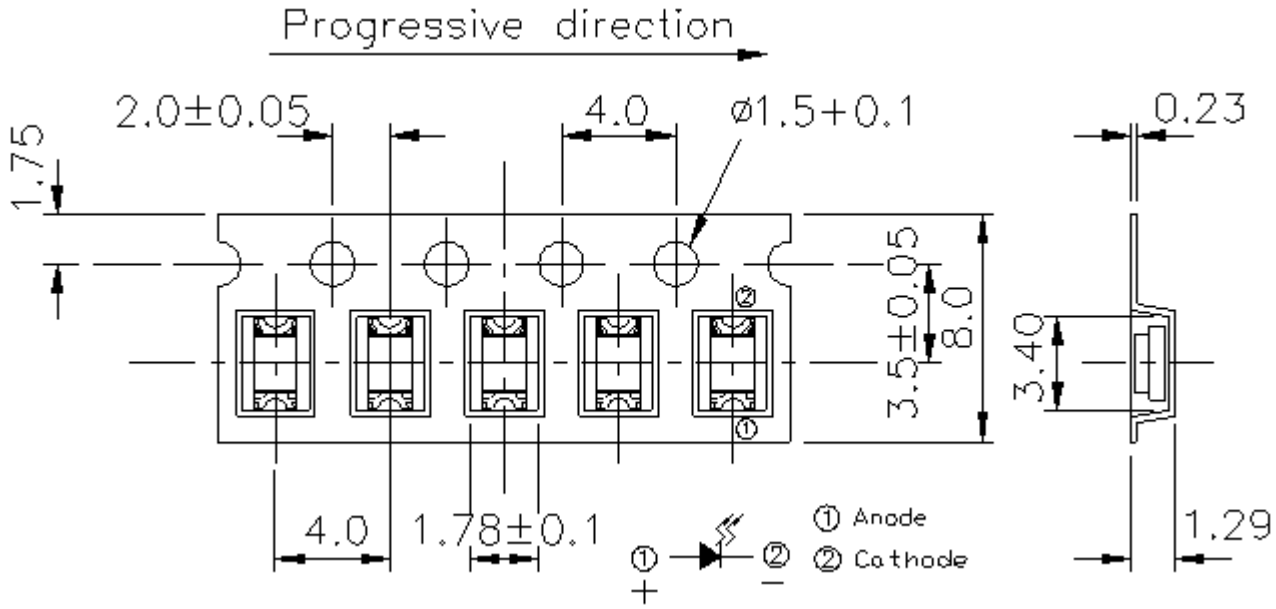
Package Dimensions



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

、

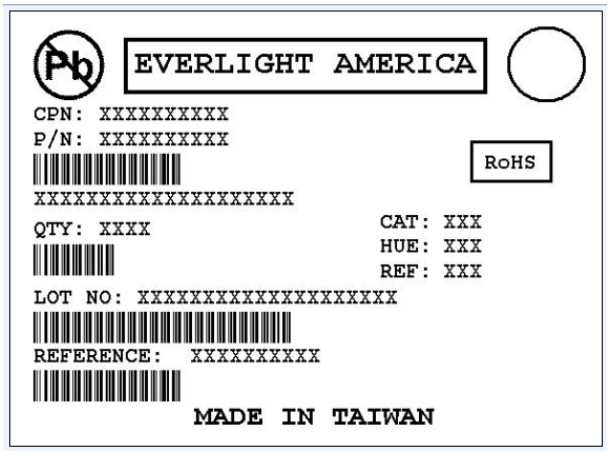
Carrier Tape Dimensions:(Quantity: 2000 PCS per reel)



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

Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com

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

Notes

1. Above specification may be changed without notice. Everlight Americas will reserve authority on
   material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Everlight Americas assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of Everlight Americas corporation. Please don't reproduce or cause anyone to reproduce them without Everlight Americas's consent.

Copyright © 2010, Everlight Americas Inc. All Rights Reserved. Release Date : 5/28/2013. Issue No: 1 Rev:1 www.everlightamericas.com