Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Kingbright

3.0mmx1.0 mm RIGHT ANGLE INFRARED EMITTING DIODE

Part Number: APA3010F3C-GX

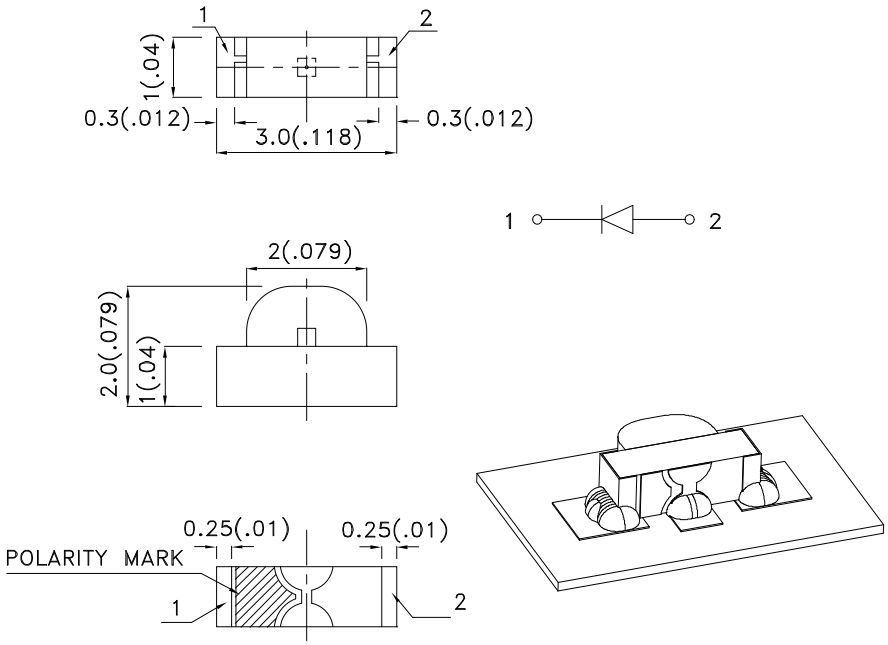
Features

- 3.0mmx1.0mm right angle SMT LED, 2.0mm thickness.
- Mechanically and spectrally matched to phototransistor.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15(0.006") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4.The device has a single mounting surface. The device must be mounted according to the specifications.

Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APA3010F3C-GX	F3 (GaAs)	Water Clear	1.2	3	120°
			*0.8	*2	

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Radiant Intensity/ luminous flux: +/-15%.
*Radiant Intensity value is traceable to the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

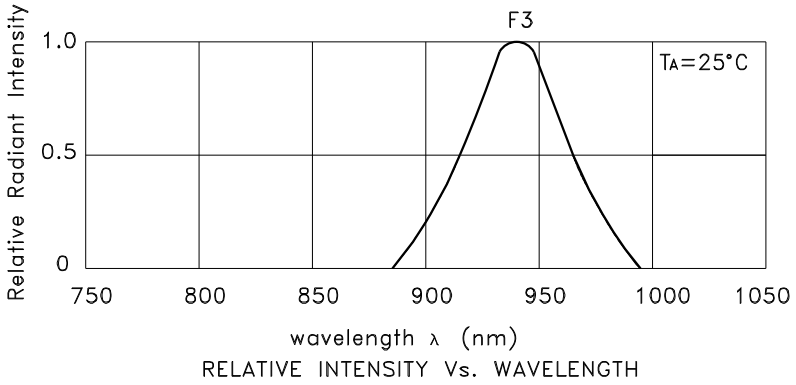
Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	F3	V_F	1.2	1.6	V	I_F=20mA
Reverse Current	F3	I_R		10	uA	V_R = 5V
Capacitance	F3	C	90		pF	V_F=0V;f=1MHz
Peak Spectral Wavelength	F3	λP	940		nm	I_F=20mA
Spectral Bandwidth	F3	Δλ1/2	50		nm	I_F=20mA

Notes:
1.Forward Voltage: +/-0.1V.
2.Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

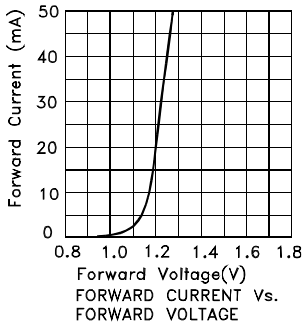
Parameter	Symbol	F3	Units
Power dissipation	P_D	80	mW
DC Forward Current	I_F	50	mA
Peak Forward Current [1]	i_{FS}	1.2	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_A	-40 To +85	°C
Storage Temperature	T_{STG}	-40 To +85	°C

Note:
1. 1/100 Duty Cycle, 10μs Pulse Width.

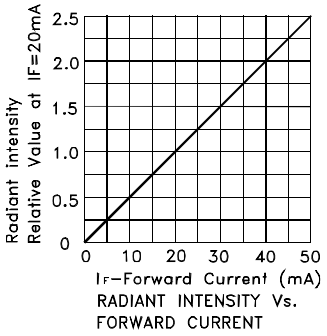


RELATIVE INTENSITY Vs. WAVELENGTH

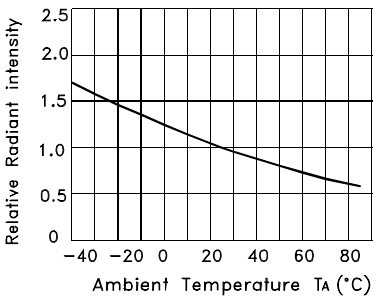
APA3010F3C-GX



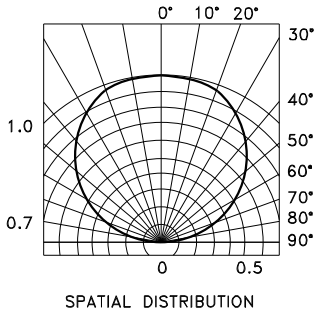
FORWARD CURRENT Vs.
FORWARD VOLTAGE



RADIANT INTENSITY Vs.
FORWARD CURRENT



RADIANT INTENSITY Vs.
AMBIENT TEMPERATURE

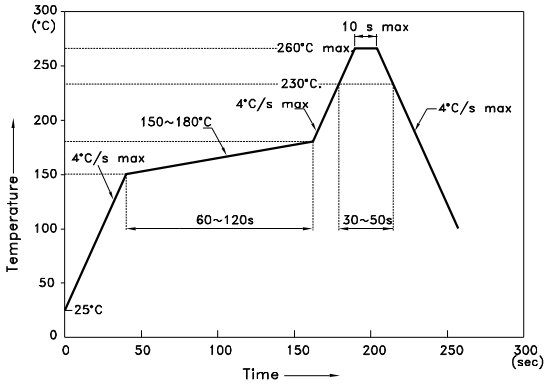


SPATIAL DISTRIBUTION

APA3010F3C-GX

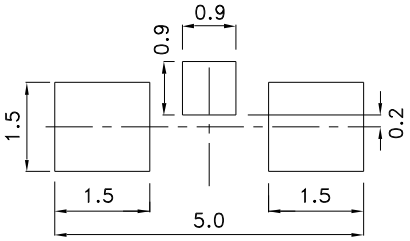
Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

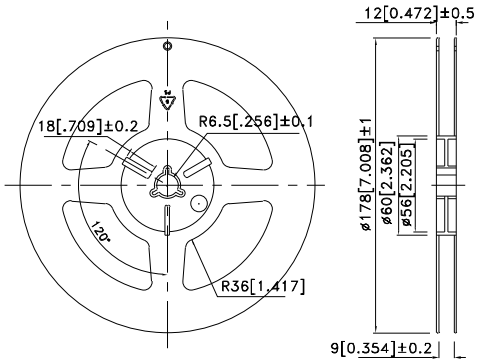


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

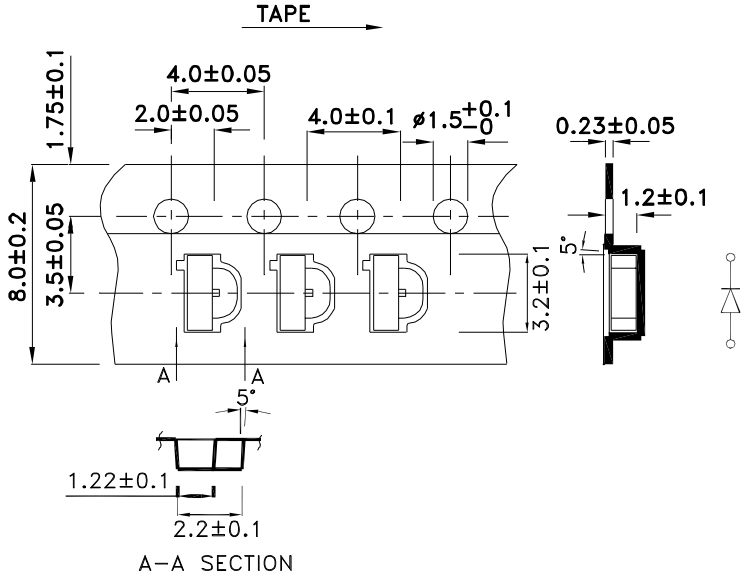
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS **APA3010F3C-GX**