

Part Number: AP1608F3C

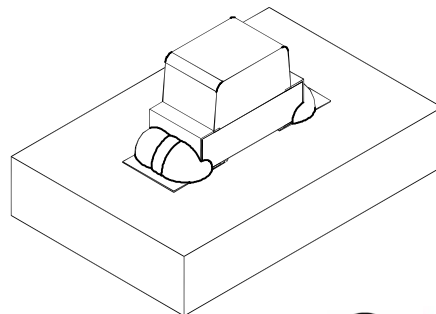
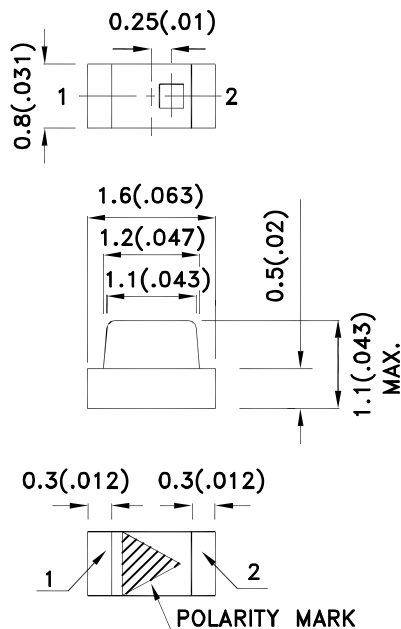
### Features

- 1.6mmX0.8mm SMT LED, 1.1mm thickness.
- Mechanically and spectrally matched to the phototransistor.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") 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
AP1608F3C	F3 (GaAs)	Water Clear	1.2	3	120°

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%.

## Electrical / Optical Characteristics at TA=25°C

Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	F3	V <sub>F</sub>	1.2	1.6	V	I <sub>F</sub> =20mA
Reverse Current	F3	I <sub>R</sub>		10	μA	V <sub>R</sub> = 5V
Capacitance	F3	C	90		pF	V <sub>F</sub> =0V;f=1MHz
Peak Spectral Wavelength	F3	λ <sub>P</sub>	940		nm	I <sub>F</sub> =20mA
Spectral Bandwidth	F3	Δλ1/2	50		nm	I <sub>F</sub> =20mA

Note:

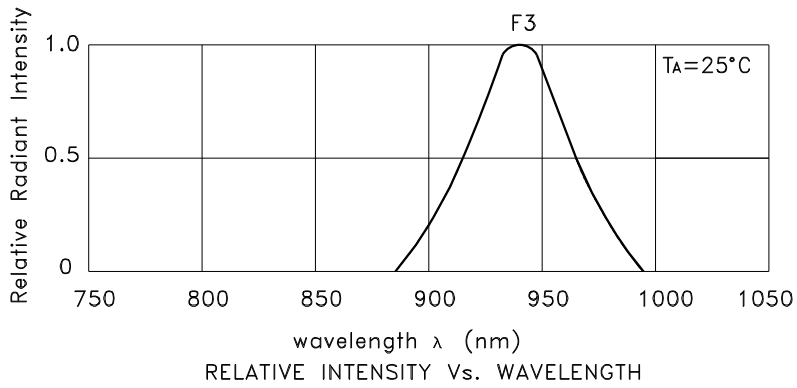
1. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

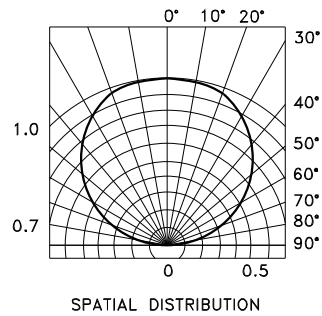
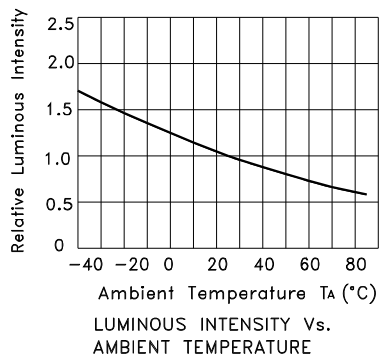
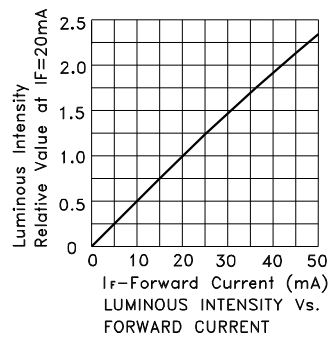
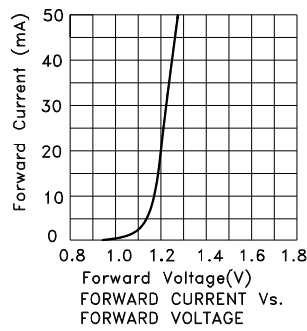
Parameter	Symbol	F3	Units
Power dissipation	P <sub>D</sub>	80	mW
DC Forward Current	I <sub>F</sub>	50	mA
Peak Forward Current [1]	i <sub>FS</sub>	1.2	A
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>A</sub>	-40 To +85	°C
Storage Temperature	T <sub>STG</sub>	-40 To +85	°C

Note:

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



## AP1608F3C



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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.

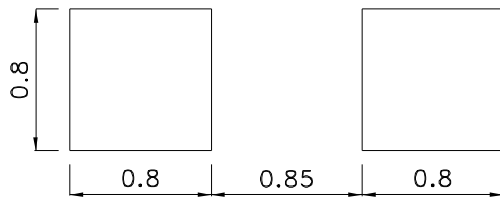
Reflow Soldering Profile For Lead-free SMT Process.



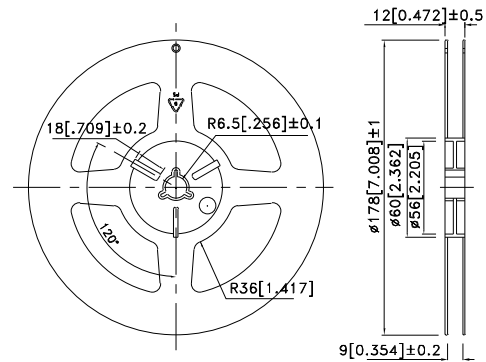
NOTES:

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.

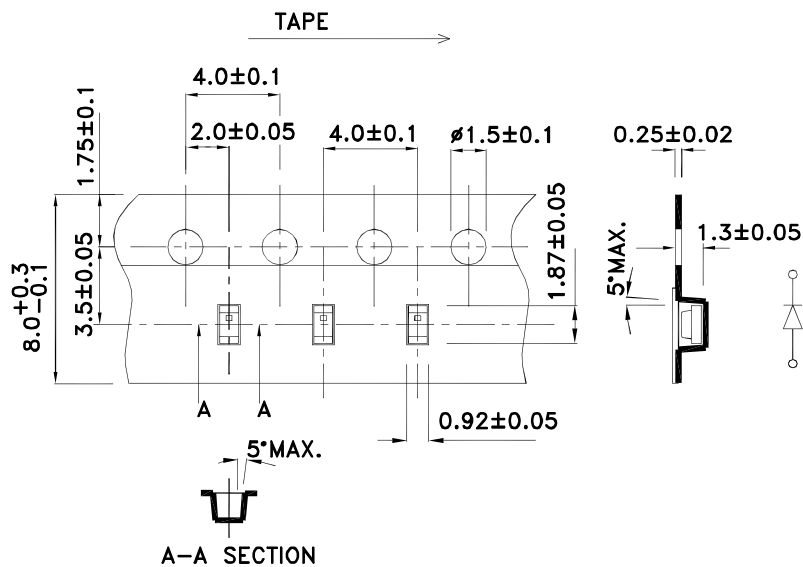
### Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



### Reel Dimension

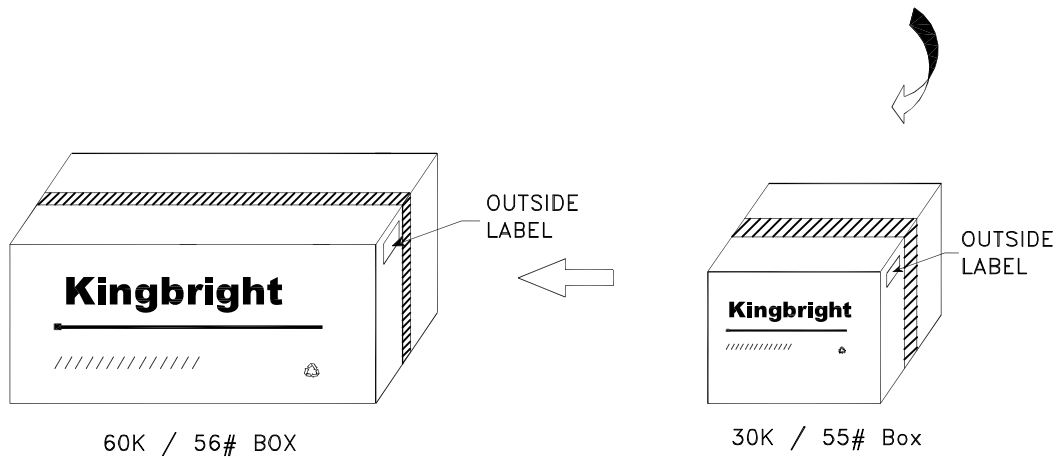
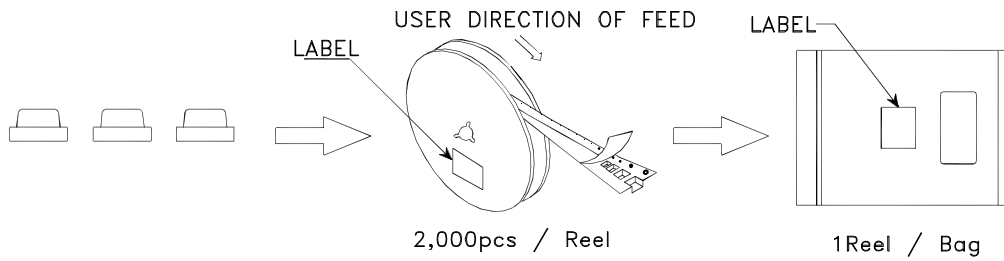


### Tape Dimensions (Units : mm)



**PACKING & LABEL SPECIFICATIONS**

**AP1608F3C**



<h1>Kingbright</h1>					
P/NO: AP1608XXX					
QTY: 2,000 pcs	Q.C.	<table border="1"> <tr> <td>Q C</td> </tr> <tr> <td>XX XX XXXX</td> </tr> <tr> <td>PASSED</td> </tr> </table>	Q C	XX XX XXXX	PASSED
Q C					
XX XX XXXX					
PASSED					
S/N: XXXX					
CODE: XXX					
LOT NO:					
XXXXXXXXXXXXXXXXXXXX					
RoHS Compliant					