

AP2012F3C

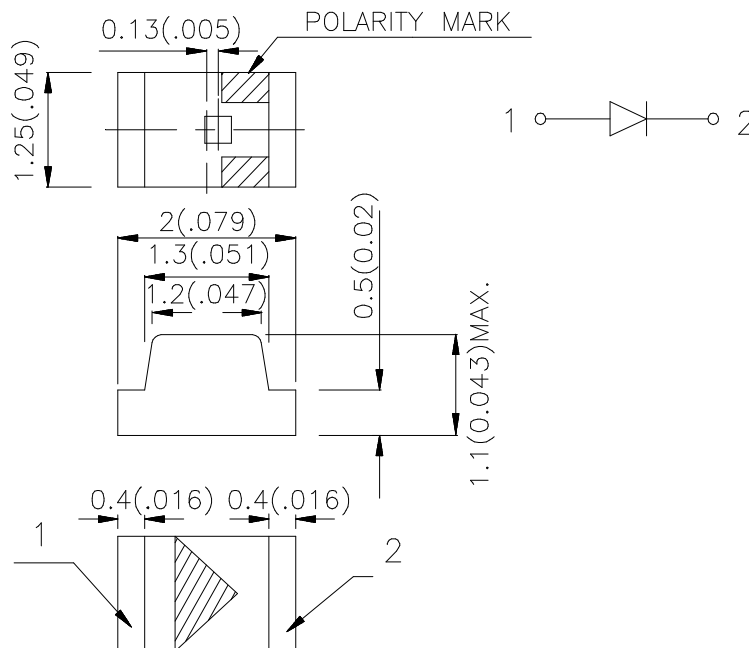
Features

- 2.0mmx1.25mm SMT LED,1.1mm THICKNESS.
- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- WATER CLEAR LENS.
- PACKAGE: 2000PCS / REEL.
- 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. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) @ 20mA		Viewing Angle
			Min.	Typ.	θ1/2
AP2012F3C	GaAs	WATER CLEAR	0.4	1.2	120°

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

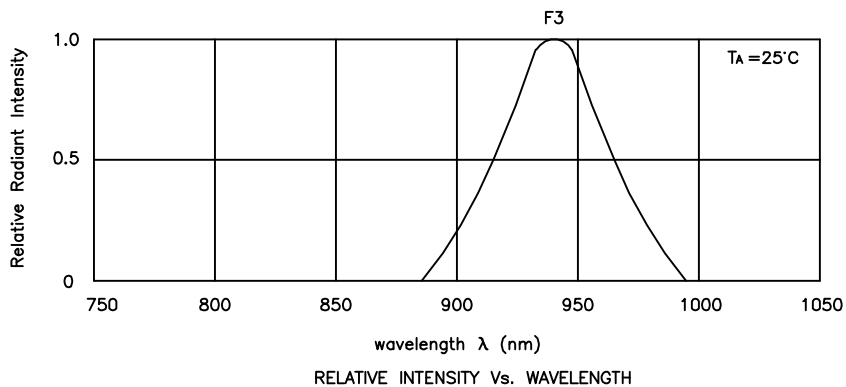
Item	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage	F3	V _F	1.2	1.6	V	I _F =20mA
Reverse Current	F3	I _R	-	10	uA	V _R =5V
Capacitance	F3	C	90	-	pF	V _F =0V;f=1MHz
Peak Spectral Wavelength	F3	λ _P	940	-	nm	I _F =20mA
Spectral Bandwidth	F3	Δλ _{1/2}	50	-	nm	I _F =20mA

Absolute Maximum Ratings at TA=25°C

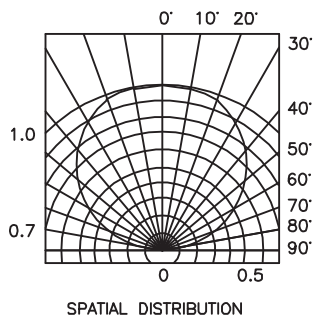
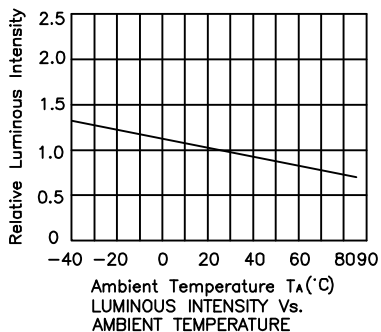
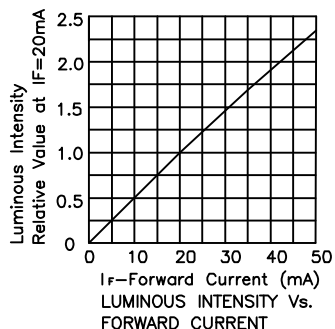
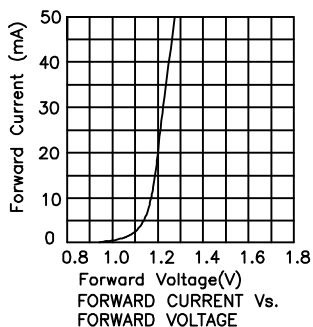
Parameter	Symbol	F3	Units
Power Dissipation	P _T	100	mW
DC Forward Current	I _F	50	mA
Peak Forward Current[1]	i _{FS}	1.2	A
Reverse Voltage	V _R	5	V
Operating Temperature	T _A	-40 To +85	°C
Storage Temperature	T _{STG}	-40 To +85	°C

Note:

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

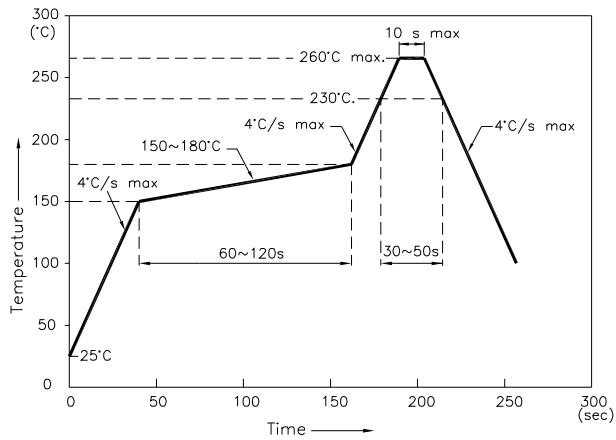


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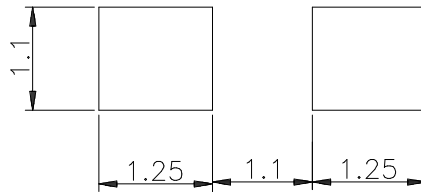
Reflow Soldering Profile For Lead-free SMT Process.



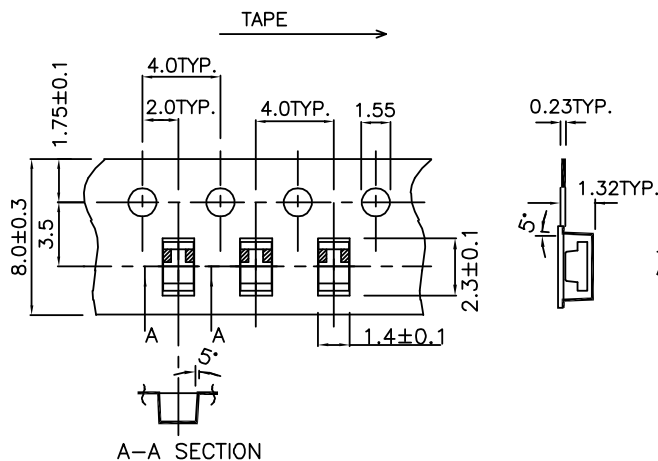
NOTES:

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)



Tape Specifications (Units : mm)



Remarks:

If special sorting is required (e.g. binning based on forward voltage or radiant intensity), the typical accuracy of the sorting process is as follows:

1. Radiant Intensity: +/-15%
2. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.