

2.0x1.25 mm INFRARED EMITTING DIODE

Part Number: APT2012F3C

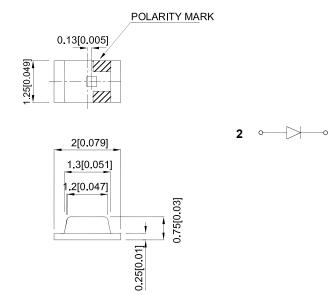
Features

- 2.0mmx1.25mm SMT LED,0.75mm 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





SPEC NO: DSAA9557

APPROVED: WYNEC

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1(0.004")$ unless otherwise noted.

0.4[0.016]

0.4[0.016]

- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) [2] @ 20mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
APT2012F3C	F3 (GaAs)	Water Clear	1.2	3	- 120°
			*0.8	*2	

- 1. 01/2 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	Тур.	Max.	Units	Test Conditions	
Forward Voltage [1]	F3	VF	1.2	1.6	V	IF=20mA	
Reverse Current	F3	lr		10	uA	VR = 5V	
Capacitance	F3	С	90		pF	VF=0V;f=1MHz	
Peak Spectral Wavelength	F3	λP	940		nm	IF=20mA	
Spectral Bandwidth	F3	Δλ1/2	50		nm	IF=20mA	

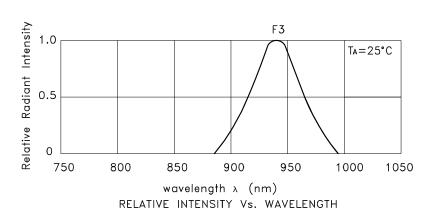
- 1. Forward Voltage: +/-0.1V.
 2. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 3. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

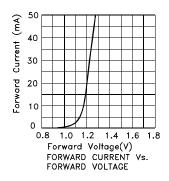
Parameter	Symbol	F3	Units				
Power dissipation	PD	80	mW				
DC Forward Current	lF	50	mA				
Peak Forward Current [1]	iFS	1.2	А				
Reverse Voltage	VR	5	V				
Operating Temperature	Та	-40 To +85	°C				
Storage Temperature	Тѕтс	-40 To +85	°C				

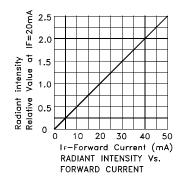
Note: 1. 1/100 Duty Cycle, 10µs Pulse Width.

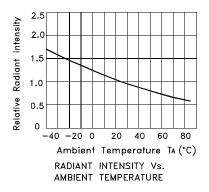
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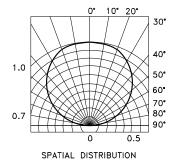


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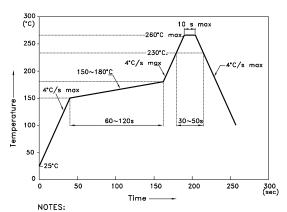
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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



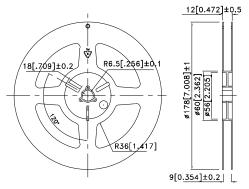
- 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- to high temperature.

 3.Number of reflow process shall be 2 times or less.

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

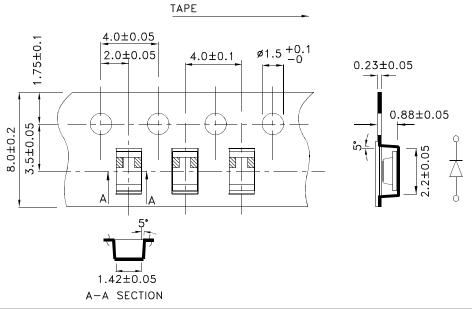


Reel Dimension



Tape Specifications

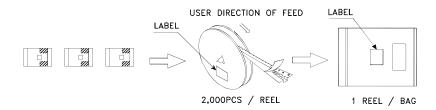
(Units : mm)

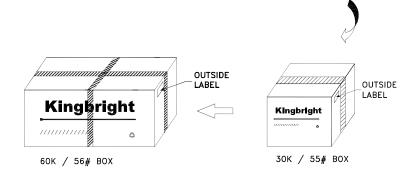


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PACKING & LABEL SPECIFICATIONS

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