

Part Number: AA3021F3S-100MAV

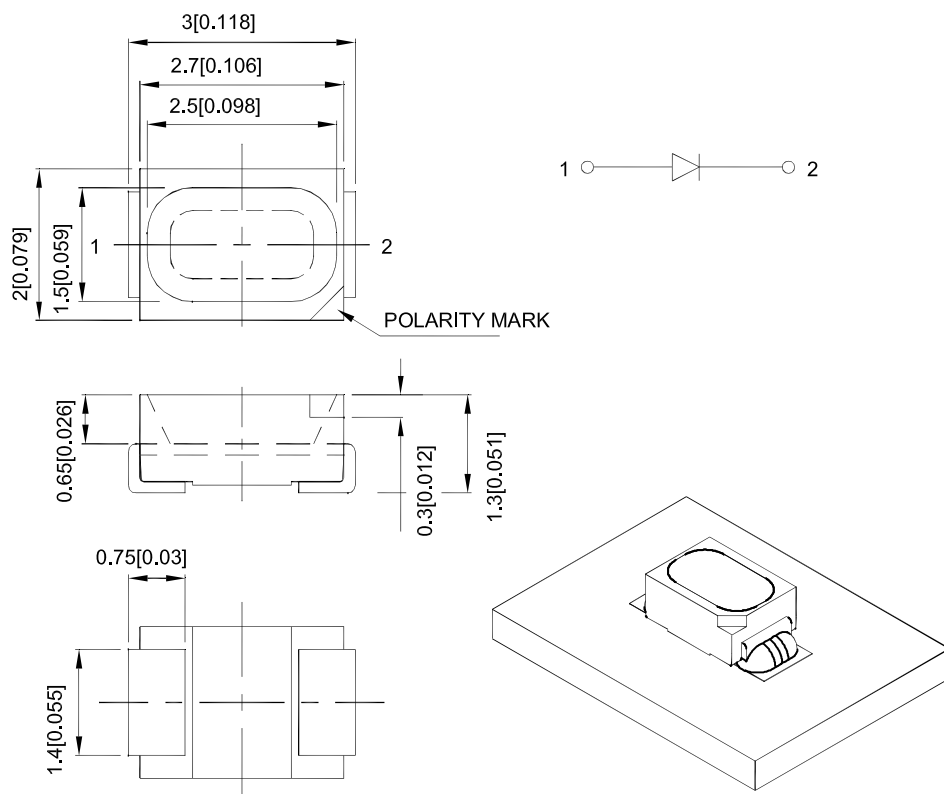
Features

- 3.0mm x 2.0mm, 1.4mm high, only minimum space required.
- Mechanically and spectrally matched to the phototransistor.
- Moisture sensitivity level : level 3.
- 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 ± 0.2 (0.008") 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.

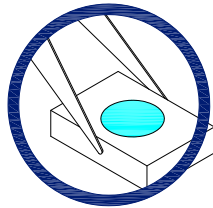


Handling Precautions

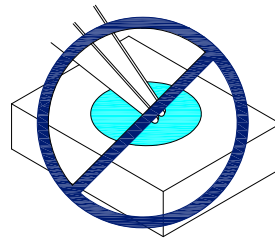
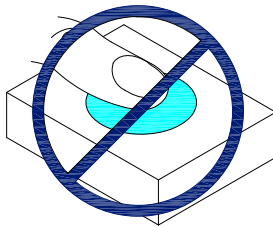
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

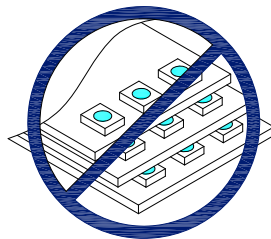
1. Handle the component along the side surfaces by using forceps or appropriate tools.



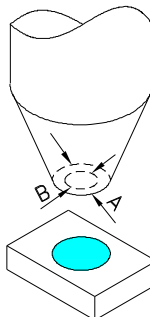
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



- 4.1. The inner diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks.
- 4.2. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 4.3. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



5. As silicone encapsulation is permeable to gases, some corrosive substances such as H_2S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Po (mW/sr) [2] @ 100mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AA3021F3S-100MAV	Infrared(GaAs)	Water Clear	12	25	125°
			*4	*7	

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 CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	F3	V _F	1.4	2	V	I _F =100mA
Reverse Current	F3	I _R		10	μA	V _R = 5V
Capacitance	F3	C	90		pF	V _F =0V;f=1MHz
Peak Spectral Wavelength	F3	λ _P	940		nm	I _F =100mA
Spectral Bandwidth	F3	Δλ1/2	50		nm	I _F =100mA

Notes:

1. Forward Voltage: +/-0.1V.

2. Wavelength value is traceable to CIE127-2007 standards.

3. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

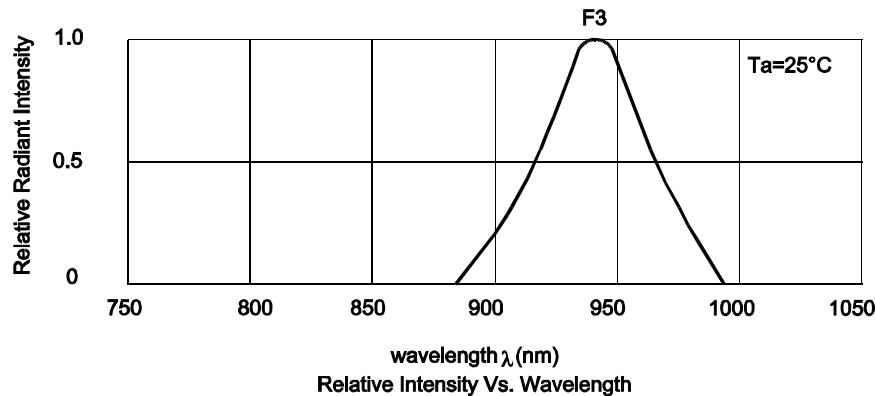
Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Values	Units
Power dissipation	P _D	200	mW
DC Forward Current	I _F	100	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

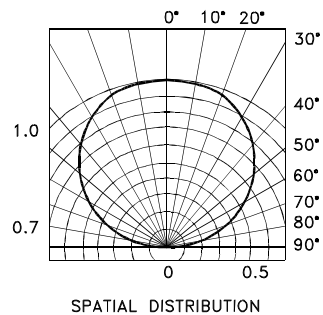
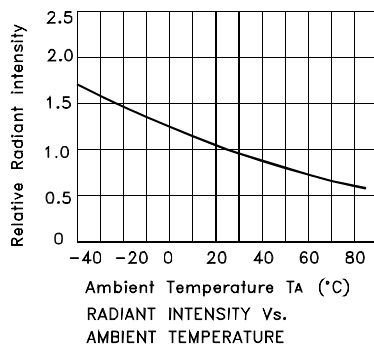
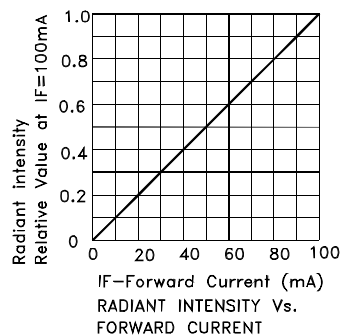
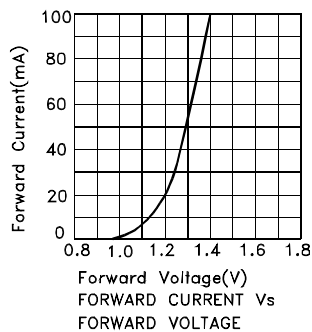
Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

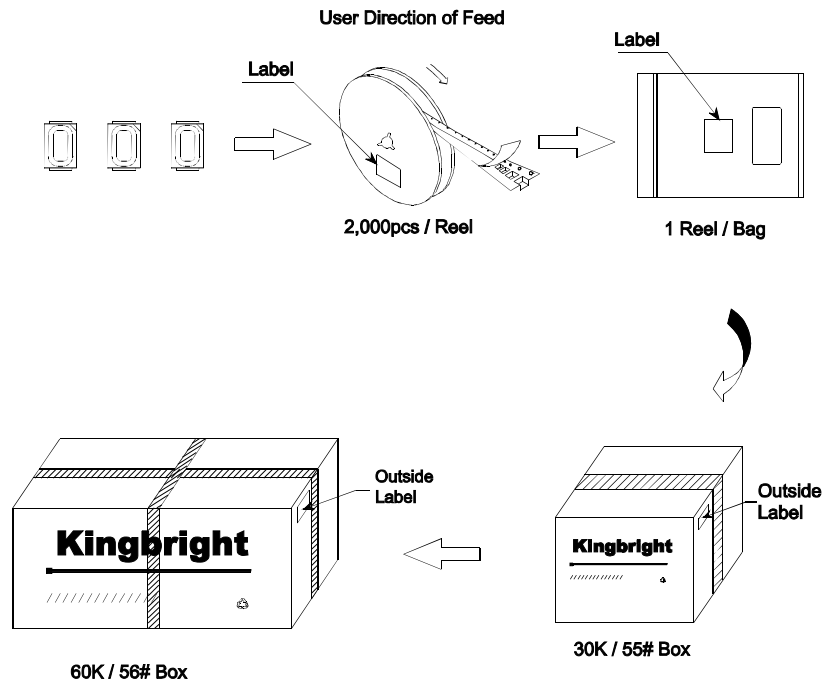


AA3021F3S-100MAV



PACKING & LABEL SPECIFICATIONS

AA3021F3S-100MAV



Kingbright	
P/NO: AA3021xxx	
QTY: 2,000 pcs	Q.C.
S/N: XXXX	Q.C. XXXXXXXXXX PASSED
CODE: XXX	
LOT NO:	
	
RoHS Compliant	

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