

AM2520F3C03

### Features

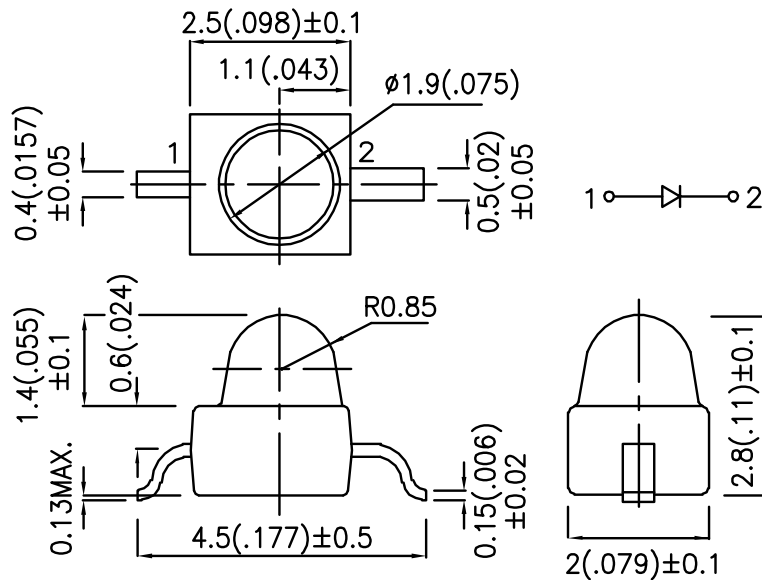
- SUBMINIATURE PACKAGE.
- GULL WING .
- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- PACKAGE : 1000PCS / REEL.
- RoHS COMPLIANT.

### Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

### Package Dimensions

Datasheet.Directory



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice | Lens Type   | Po (mW/sr)<br>@ 20mA *50mA |      | Viewing<br>Angle |
|-------------|------|-------------|----------------------------|------|------------------|
|             |      |             | Min.                       | Typ. | 2θ1/2            |
| AM2520F3C03 | GaAs | WATER CLEAR | 1.6                        | 6    | 20°              |
|             |      |             | *10                        | *15  |                  |

Notes:

- 1.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. \* Luminous intensity with asterisk is measured at 50mA.

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

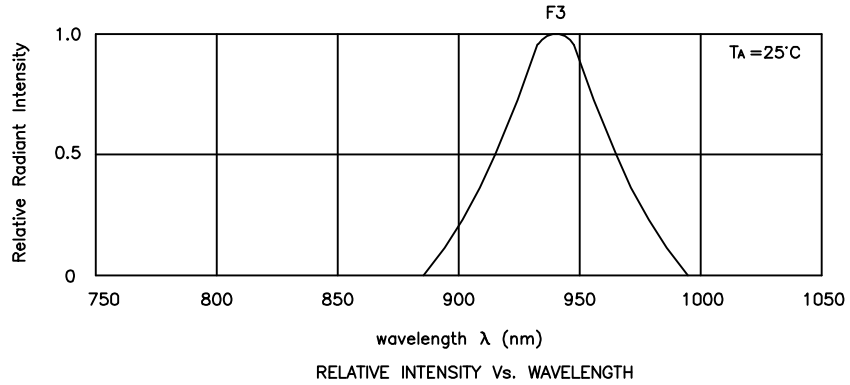
| Parameter                | P/N | Symbol         | Typ. | Max. | Units | Test Conditions           |
|--------------------------|-----|----------------|------|------|-------|---------------------------|
| Forward Voltage          | F3  | V <sub>F</sub> | 1.2  | 1.6  | V     | I <sub>F</sub> =20mA      |
| Reverse Current          | F3  | I <sub>R</sub> | -    | 10   | uA    | 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      |

## Absolute Maximum Ratings at TA=25°C

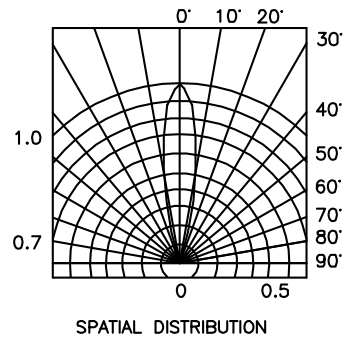
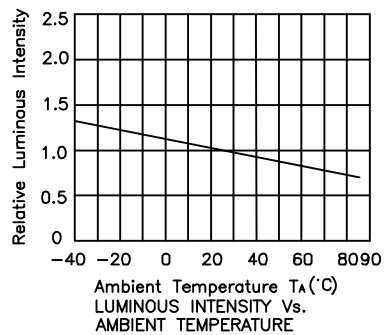
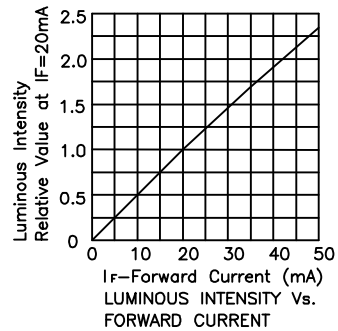
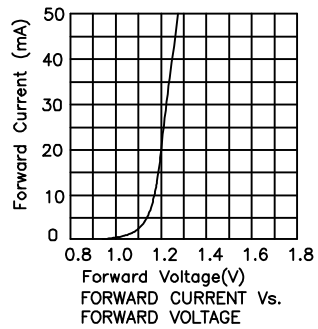
| Parameter               | Symbol           | F3         | Units |
|-------------------------|------------------|------------|-------|
| Power Dissipation       | P <sub>T</sub>   | 100        | mW    |
| DC Forward Current      | I <sub>F</sub>   | 50         | mA    |
| Peak Forward Current[1] | i <sub>F</sub> S | 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, 10us Pulse Width.

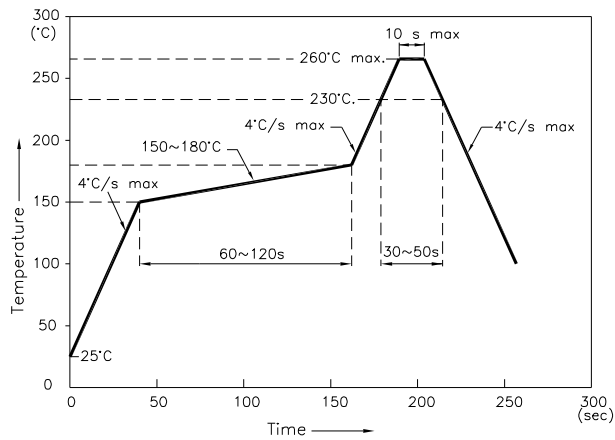


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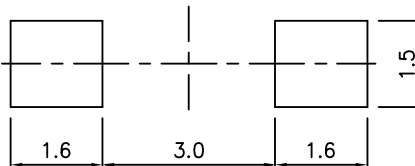
Reflow Soldering Profile For Lead-free SMT Process.



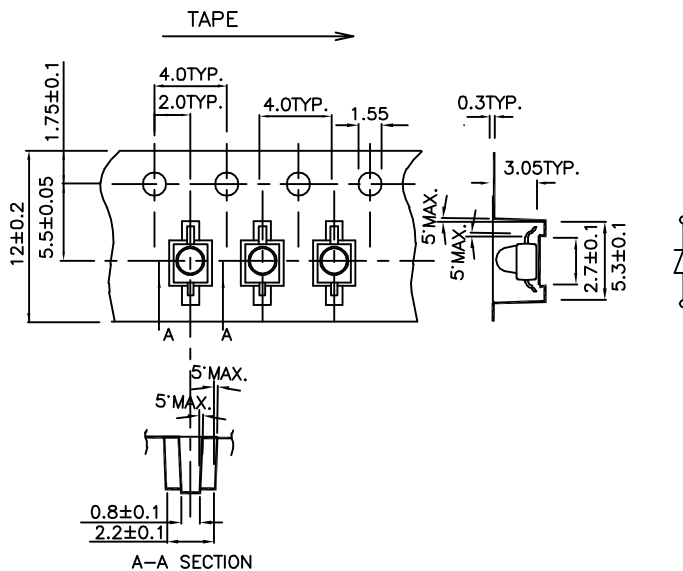
**NOTES:**

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 there is sorting requirement (eg. forward voltage, luminous intensity or wavelength) , the condition as follows:

1. Wavelength: +/-1nm (Test condition is based on the sorting standard).
2. Luminous intensity: +/-15% (Test condition is based on the sorting standard).
3. Forward voltage: +/-0.1V (Test condition is based on the sorting standard).