



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Part Number: AM4457F3C

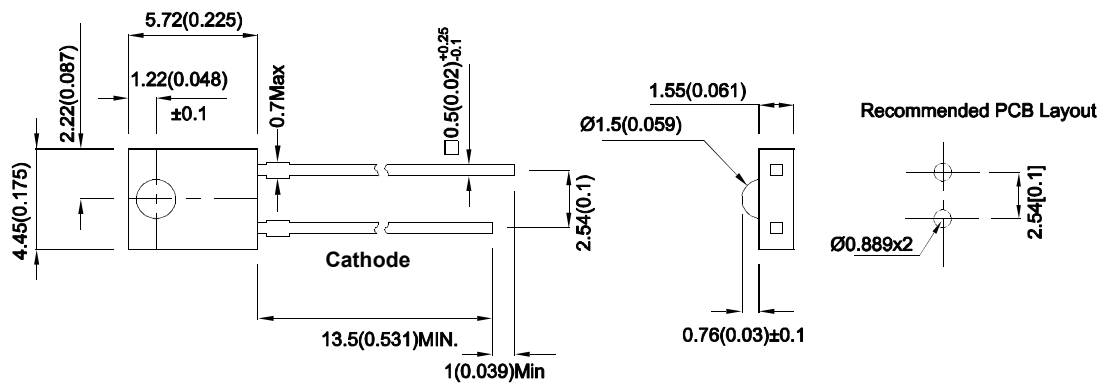
Features

- Side looking package.
- Mechanically and spectrally matched to the phototransistor.
- RoHS compliant.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Package Dimensions



REMARK : The IR LED can be driven at 100mA, with at a max pulse width of 20ms, The maximum duty cycle is 20%.

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 (0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | Po (mW/sr) [2] @ 20mA | | Viewing Angle [1] |
|-----------|---------------------------|-------------|--------------------------|------|-------------------|
| | | | Min. | Typ. | 2 θ 1/2 |
| AM4457F3C | Infrared(GaAs) | Water Clear | 3 | 7 | 70° |
| | | | *2 | *5 | |

Notes:

1. θ 1/2 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 | 1.2 | 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 | $\Delta\lambda$ 1/2 | 50 | | nm | I _F =20mA |

Note:

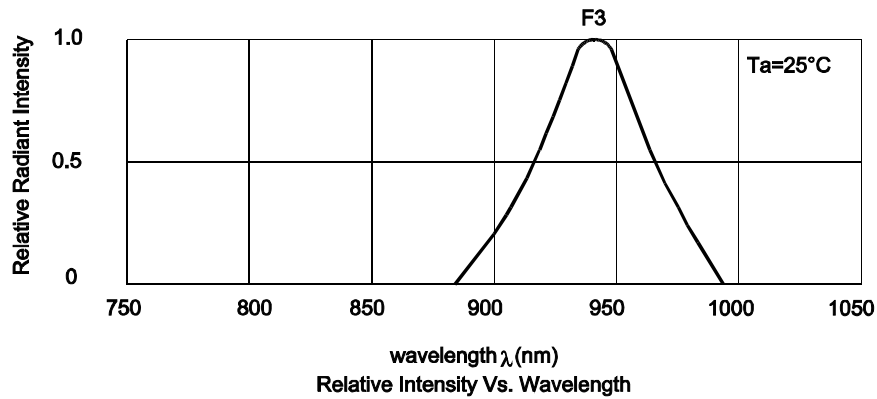
1. Forward Voltage: +/-0.1V.
2. Wavelength value is traceable to CIE127-2007 standards.
3. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

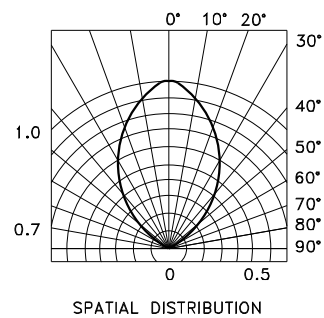
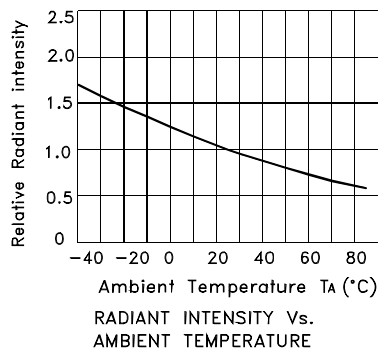
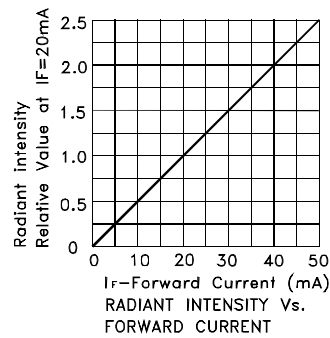
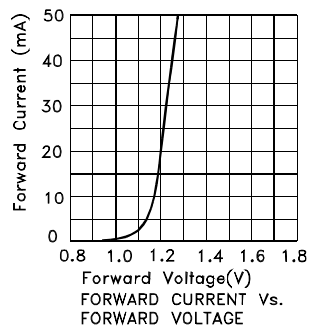
| Parameter | Symbol | Values | Units |
|-----------------------------|------------------|---------------------|-------|
| Power dissipation | P _D | 80 | mW |
| DC Forward Current | I _F | 50 | mA |
| Peak Forward Current [1] | i _{FS} | 1.2 | A |
| Reverse Voltage | V _R | 5 | V |
| Operating Temperature | T _A | -40 To +85 | °C |
| Storage Temperature | T _{STG} | -40 To +85 | °C |
| Lead Solder Temperature [2] | | 260°C For 3 Seconds | |
| Lead Solder Temperature [3] | | 260°C For 5 Seconds | |

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.
4. 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.

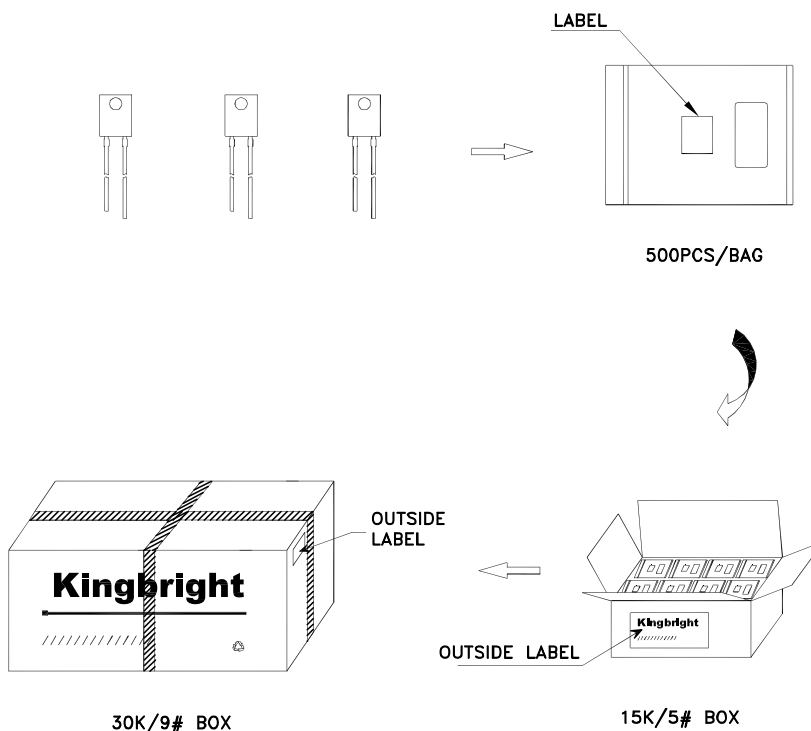



AM4457F3C



PACKING & LABEL SPECIFICATIONS

AM4457F3C



| | |
|--|--|
| Kingbright | |
| P/NO: AM4457xxx | |
| QTY: 500 pcs | Q.C. Q C XX XX XXXX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |

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2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
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