

T-1 3/4 (5mm) INFRA-RED EMITTING DIODE

L-7113F3BT

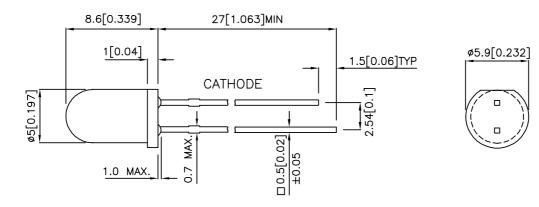
Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.
- RoHS COMPLIANT.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Package Dimensions



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

SPEC NO: DSAE2820 **REV NO: V.4** DATE: MAR/18/2005 PAGE: 1 OF 3 CHECKED: Allen Liu DRAWN: Y.CHENG

APPROVED: J. Lu

Kingbright

Selection Guide

| Part No. | Dice | Lens Type | Po (mW/sr) @ 20mA*50mA | | Viewing Angle |
|------------|------|------------------|---------------------------|------|------------------|
| | | ,, | Min. | Тур. | 201/2 |
| L-7113F3BT | GaAs | BLUE TRANSPARENT | 4 | 20 | 20° |
| | | | *7 | *30 | |

Notes:

Electrical / Optical Characteristics at Ta=25°C

| Item | P/N | Symbol | Тур. | Max. | Units | Test Conditions |
|--------------------------|-----|--------|------|------|-------|-----------------|
| Forward Voltage | 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 | λΡ | 940 | = | nm | IF=20mA |
| Spectral Bandwidth | F3 | Δλ1/2 | 50 | = | nm | IF=20mA |

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | F3 | Units | | |
|-----------------------------|---------------------|------------|-------|--|--|
| Power Dissipation | Рт | 100 | mW | | |
| DC Forward Current | lF | 50 | mA | | |
| Peak Forward Current[1] | iFS | 1.2 | A | | |
| Reverse Voltage | VR | 5 | V | | |
| Operating Temperature | Та | -40 To +85 | °C | | |
| Storage Temperature | Тѕтс | -40 To +85 | °C | | |
| Lead Solder Temperature [2] | 260°C For 3 Seconds | | | | |
| Lead Solder Temperature [3] | 260°C For 5 Seconds | | | | |

Notes:

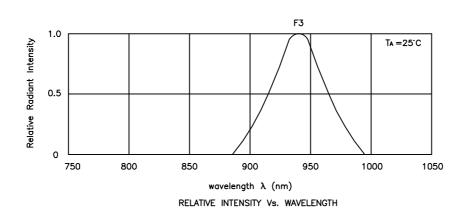
- 1. 1/100 Duty Cycle, 10us Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

SPEC NO: DSAE2820 REV NO: V.4 DATE: MAR/18/2005 PAGE: 2 OF 3
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.CHENG

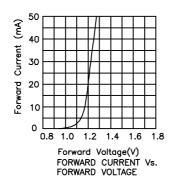
^{1.01/2} is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

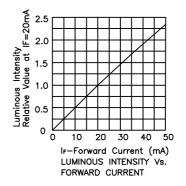
^{2.*} Luminous intensity with asterisk is measured at 50mA.

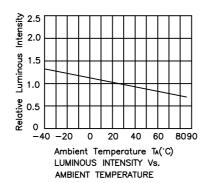
Kingbright

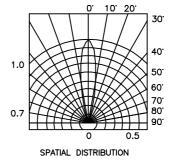


L-7113F3BT









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.

SPEC NO: DSAE2820 REV NO: V.4 DATE: MAR/18/2005 PAGE: 3 OF 3
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.CHENG