

|          |           |
|----------|-----------|
| L-34F3C  | L-34F3BT  |
| L-34SF4C | L-34SF4BT |
| L-34SF6C | L-34SF6BT |
| L-34SF7C | L-34SF7BT |

### Features

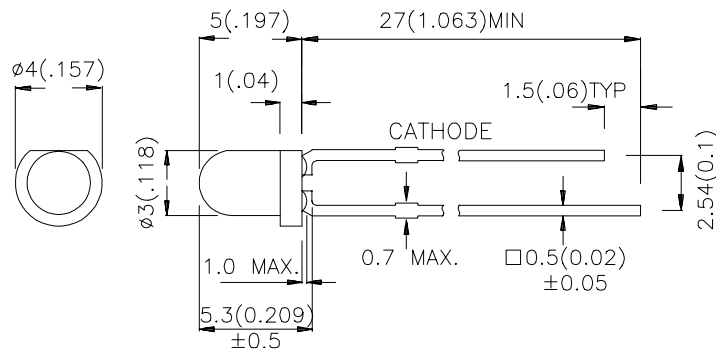
- MECHANICALLY AND SPECTRALLY MATCHED TO THE L-32P3C PHOTOTRANSISTOR.
- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

### Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

SF4 and SF6 and SF7 Made with Gallium Aluminum Arsenide Infrared Emitting diodes.

### Package Dimensions



#### 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 lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.  | Dice   | Lens Type        | Po (mW/sr)<br>@20mA |      | Po (mW/sr)<br>@50mA |      | Viewing<br>Angle |
|-----------|--------|------------------|---------------------|------|---------------------|------|------------------|
|           |        |                  | Min.                | Typ. | Min.                | Typ. | 2θ1/2            |
| L-34F3C   | GaAs   | WATER CLEAR      | 2                   | 10   | 5                   | 20   | 50°              |
| L-34F3BT  | GaAs   | BLUE TRANSPARENT | 2                   | 5    | 8                   | 20   | 50°              |
| L-34SF4C  | GaAlAs | WATER CLEAR      | 2                   | 10   | 5                   | 20   | 50°              |
| L-34SF4BT | GaAlAs | BLUE TRANSPARENT | 2                   | 4    | 8                   | 20   | 50°              |
| L-34SF6C  | GaAlAs | WATER CLEAR      | 7                   | 15   | 10                  | 40   | 50°              |
| L-34SF6BT | GaAlAs | BLUE TRANSPARENT | 7                   | 15   | 10                  | 40   | 50°              |
| L-34SF7C  | GaAlAs | WATER CLEAR      | 7                   | 18   | 10                  | 45   | 50°              |
| L-34SF7BT | GaAlAs | BLUE TRANSPARENT | 7                   | 18   | 10                  | 45   | 50°              |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

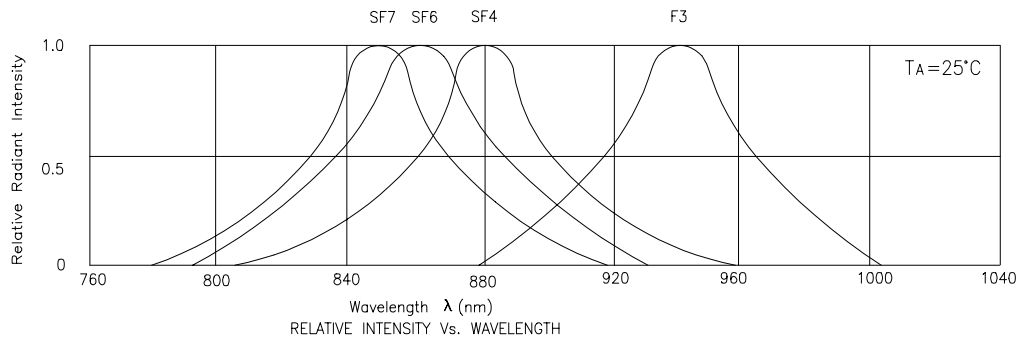
| Item                     | P/N                     | Symbol         | Typ.                      | Max.                     | Unit | Condition     |
|--------------------------|-------------------------|----------------|---------------------------|--------------------------|------|---------------|
| Forward Voltage          | F3<br>SF4<br>SF6<br>SF7 | V <sub>F</sub> | 1.2<br>1.3<br>1.35<br>1.4 | 1.5<br>1.7<br>1.6<br>1.8 | V    | IF=20mA       |
| Reverse Current          | F3<br>SF4<br>SF6<br>SF7 | I <sub>R</sub> | -                         | 10<br>10<br>10<br>10     | uA   | VR=5V         |
| Junction Capacitance     | F3<br>SF4<br>SF6<br>SF7 | C              | 90<br>90<br>30<br>30      | -                        | pF   | VF=0V; f=1MHz |
| Peak Spectral Wavelength | F3<br>SF4<br>SF6<br>SF7 | λ <sub>P</sub> | 940<br>880<br>860<br>850  | -                        | nm   | IF=20mA       |
| Spectral Bandwidth       | F3<br>SF4<br>SF6<br>SF7 | Δλ             | 50<br>50<br>50<br>41      | -                        | nm   | IF=20mA       |

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

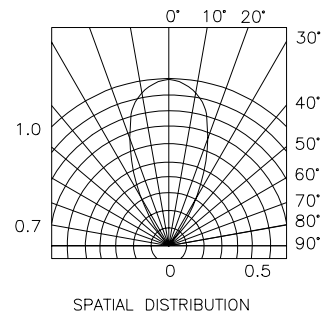
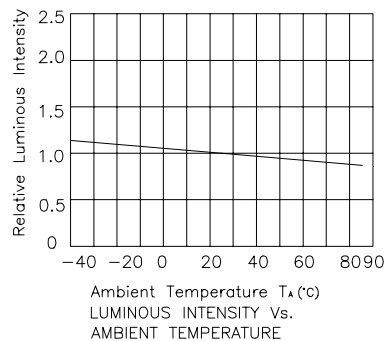
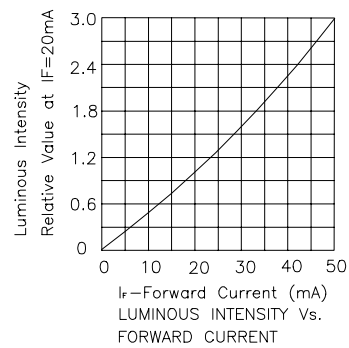
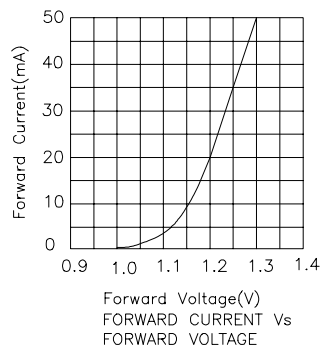
| Item                        | Symbol                             | F3&SF4   | SF6&SF7  | Units            |
|-----------------------------|------------------------------------|----------|----------|------------------|
| Power Dissipation           | $P_d$                              | 100      | 100      | mW               |
| Forward Current             | $I_F$                              | 50       | 50       | mA               |
| Peak Forward Current[1]     | $I_p$                              | 1.2      | 1        | A                |
| Reverse Voltage             | $V_R$                              | 5        | 5        | V                |
| Operating Temperature       | $T_{opr}$                          | -40~ +85 | -40~ +85 | $^\circ\text{C}$ |
| Storage Temperature         | $T_{stg}$                          | -40~ +85 | -40~ +85 | $^\circ\text{C}$ |
| Lead Solder Temperature [2] | 260 $^\circ\text{C}$ For 5 Seconds |          |          |                  |

Notes:

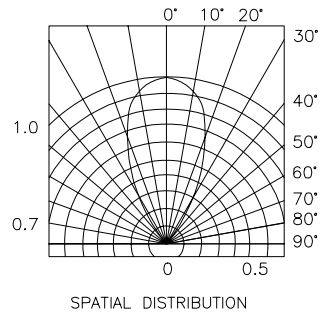
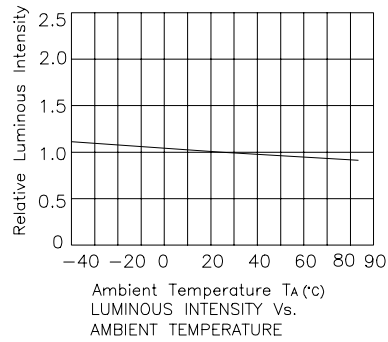
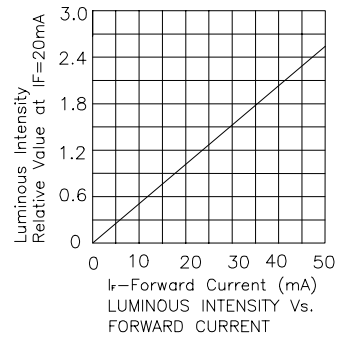
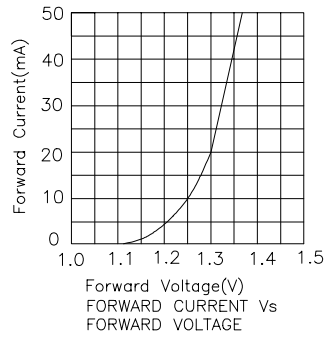
- 1/100 Duty Cycle, 10us Pulse Width.
- 4mm below package base.



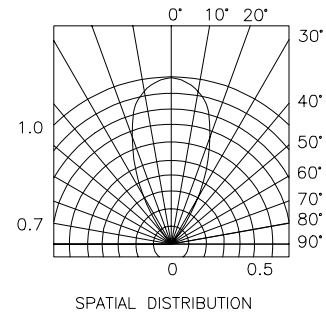
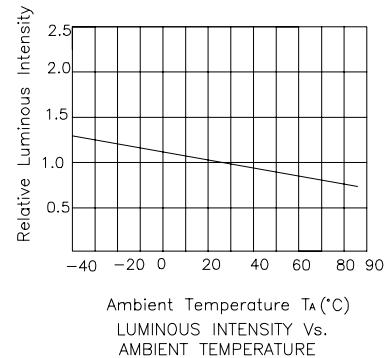
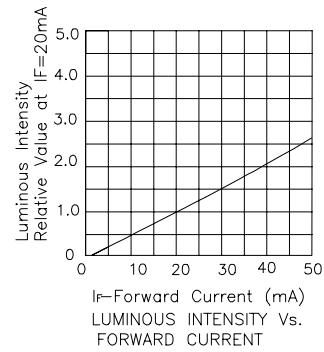
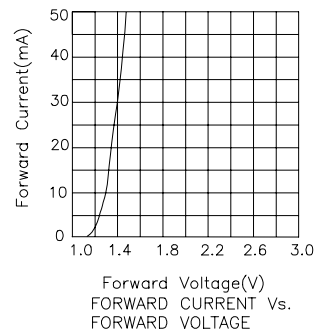
## L-34F3C, L-34F3BT



## L-34SF4C, L-34SF4BT



## L-34SF6C, L-34SF6BT



L-34SF7C, L-34SF7BT

