

W53SF4BT

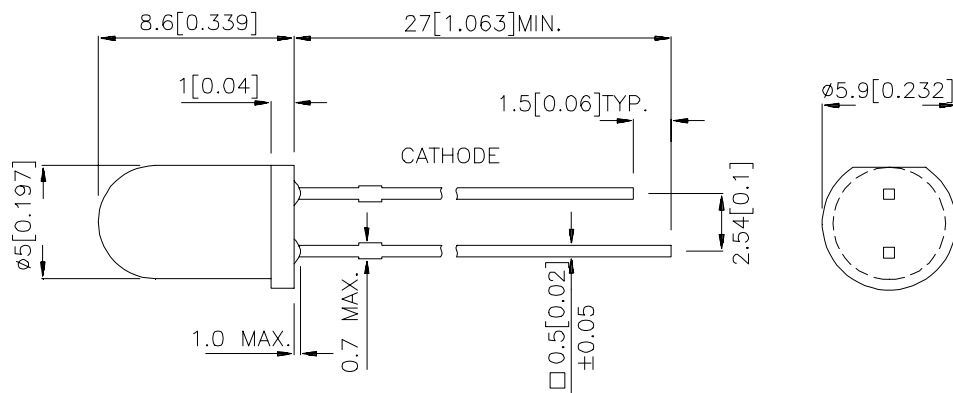
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE W51P3C PHOTOTRANSISTOR.
- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE

### Description

SF4 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>@ 20 mA *50mA |      | Viewing<br>Angle |
|----------|--------|------------------|----------------------------|------|------------------|
|          |        |                  | Min.                       | Typ. | 2 $\theta$ 1/2   |
| W53SF4BT | GaAlAs | BLUE TRANSPARENT | 4                          | 20   | 20°              |
|          |        |                  | *7                         | *30  | 20°              |

Notes:

1.  $\theta$ 1/2 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 T<sub>A</sub>=25°C

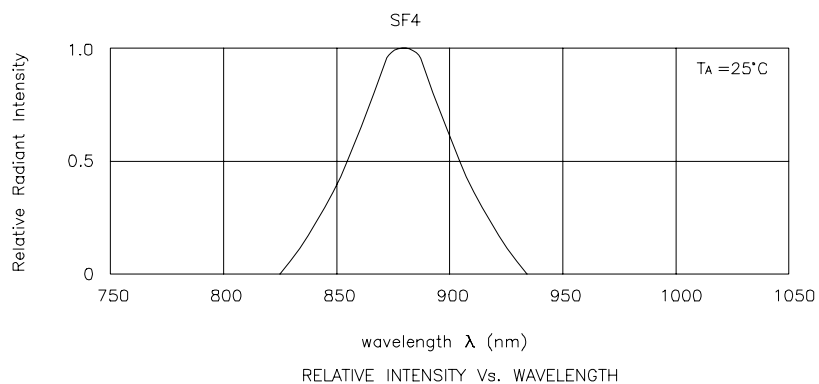
| Parameter                   | P/N | Symbol               | Typ. | Max. | Unit | Condition                  |
|-----------------------------|-----|----------------------|------|------|------|----------------------------|
| Forward Voltage             | SF4 | V <sub>F</sub>       | 1.3  | 1.6  | V    | I <sub>F</sub> =20mA       |
| Reverse Current             | SF4 | I <sub>R</sub>       | -    | 10   | uA   | V <sub>R</sub> =5V         |
| Capacitance                 | SF4 | C                    | 90   | -    | pF   | V <sub>F</sub> =0V; f=1MHz |
| Wavelength at peak emission | SF4 | $\lambda$ P          | 880  | -    | nm   | I <sub>F</sub> =20mA       |
| Spectral line half-width    | SF4 | $\Delta \lambda$ 1/2 | 50   | -    | nm   | I <sub>F</sub> =20mA       |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Item                       | Symbol              | SF4      | Units |
|----------------------------|---------------------|----------|-------|
| Power Dissipation          | P <sub>T</sub>      | 100      | mW    |
| Forward Current            | I <sub>F</sub>      | 50       | mA    |
| Peak Forward Current[1]    | i <sub>FS</sub>     | 1.2      | A     |
| Reverse Voltage            | V <sub>R</sub>      | 5        | V     |
| Operating Temperature      | T <sub>A</sub>      | -40~ +85 | °C    |
| Storage Temperature        | T <sub>STG</sub>    | -40~ +85 | °C    |
| Lead Solder Temperature[2] | 260°C For 5 Seconds |          |       |

Notes:

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



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