

L53F3C	L53F3BT
L53SF4C	L53SF4BT

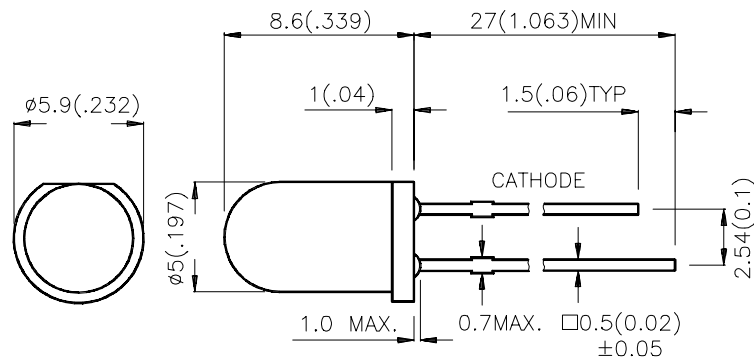
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE L51P3C PHOTOTRANSISTOR.
- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

### Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.  
 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) @20mA		Po (mW/sr) @50mA		Viewing Angle
			Min.	Typ.	Min.	Typ.	2θ1/2
L53F3C	GaAs	WATER CLEAR	8	20	12	30	30°
L53F3BT	GaAs	BLUE TRANSPARENT	5	20	8	30	30°
L53SF4C	GaAlAs	WATER CLEAR	8	20	12	30	30°
L53SF4BT	GaAlAs	BLUE TRANSPARENT	5	20	8	30	30°

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

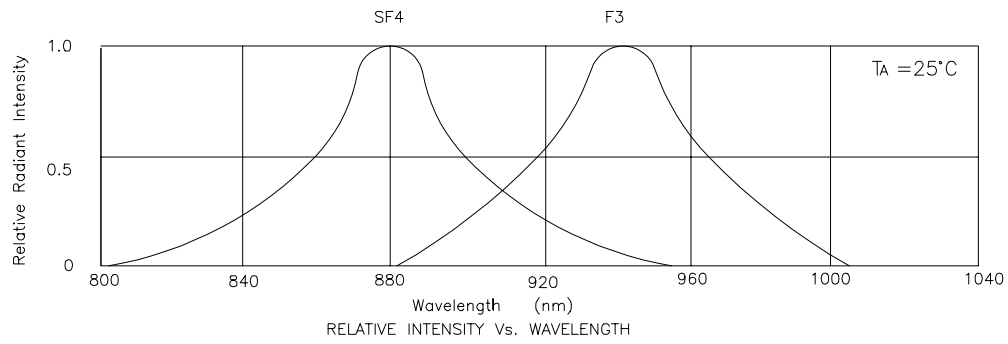
Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	F3 SF4	V <sub>F</sub>	1.2 1.3	1.5 1.7	V	IF=20mA
Reverse Current	F3 SF4	I <sub>R</sub>	-	10 10	uA	VR=5V
Junction Capacitance	F3 SF4	C	90 90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	F3 SF4	λ <sub>P</sub>	940 880	-	nm	IF=20mA
Spectral Bandwidth	F3 SF4	Δλ	50 50	-	nm	IF=20mA

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

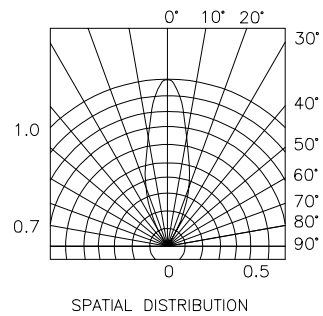
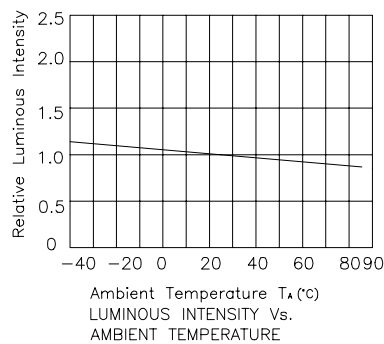
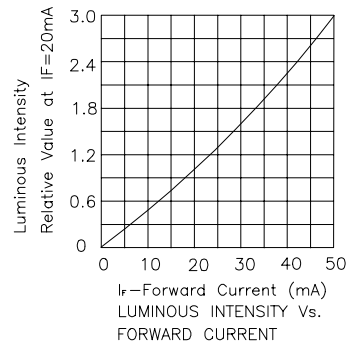
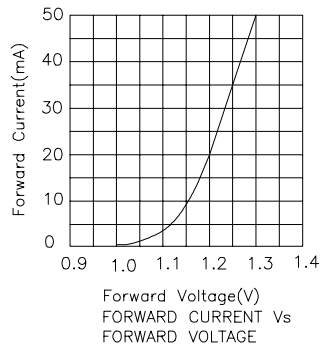
Item	Symbol	F3&SF4	Units
Power Dissipation	PT	100	mW
Forward Current	I <sub>F</sub>	50	mA
Peak Forward Current	I <sub>p</sub>	1.2	A
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>A</sub>	-40~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40~ +85	°C

Notes:

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



## L53F3C, L53F3BT



## L53SF4C, L53SF4BT

