

L-53F3C	L-53F3BT
L-53SF4C	L-53SF4BT
L-53SF6C	L-53SF6BT
L-53SF7C	L-53SF7BT

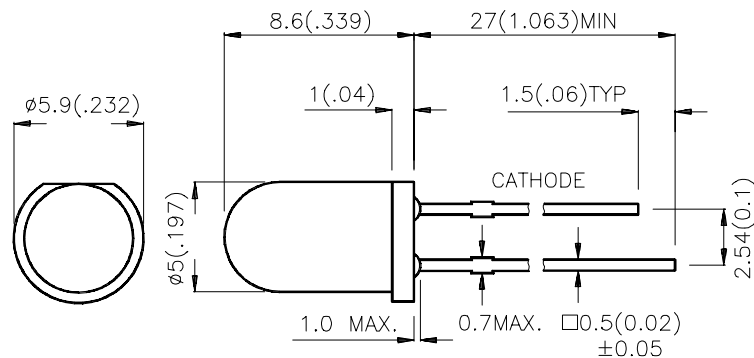
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE L-51P3C 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) @20mA		Po (mW/sr) @50mA		Viewing Angle
			Min.	Typ.	Min.	Typ.	2θ1/2
L-53F3C	GaAs	WATER CLEAR	8	20	12	30	30°
L-53F3BT	GaAs	BLUE TRANS.	5	20	8	30	30°
L-53SF4C	GaAlAs	WATER CLEAR	8	20	12	30	30°
L-53SF4BT	GaAlAs	BLUE TRANS.	5	20	8	30	30°
L-53SF6C	GaAlAs	WATER CLEAR	10	40	50	100	30°
L-53SF6BT	GaAlAs	BLUE TRANS.	10	40	50	100	30°
L-53SF7C	GaAlAs	WATER CLEAR	10	40	50	100	30°
L-53SF7BT	GaAlAs	BLUE TRANS.	10	40	50	100	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

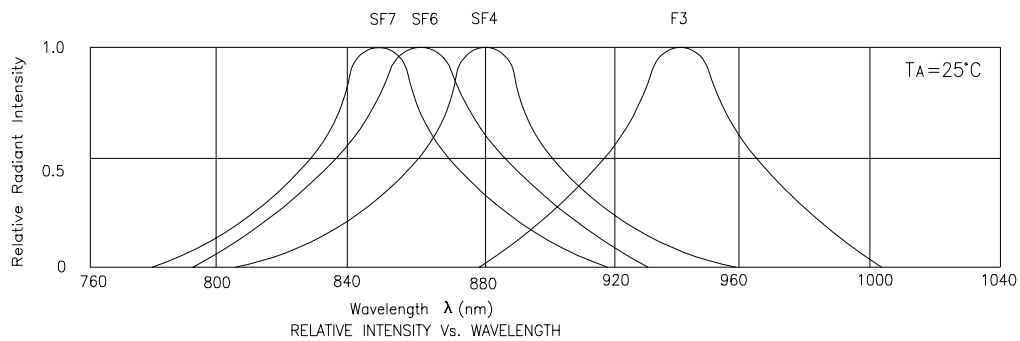
Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	F3 SF4 SF6 SF7	V <sub>F</sub>	1.2 1.3 1.35 1.4	1.5 1.7 1.6 1.8	V	IF=20mA
Reverse Current	F3 SF4 SF6 SF7	I <sub>R</sub>	-	10 10 10 10	uA	VR=5V
Junction Capacitance	F3 SF4 SF6 SF7	C	90 90 30 30	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	F3 SF4 SF6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

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

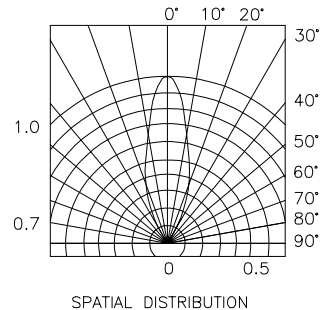
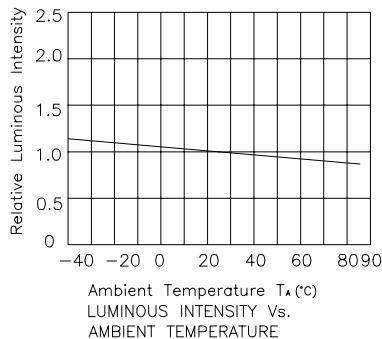
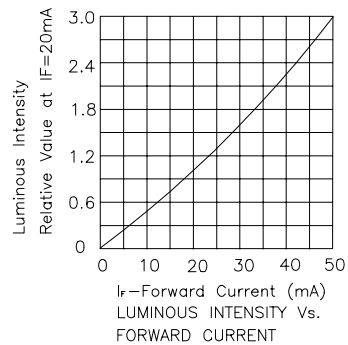
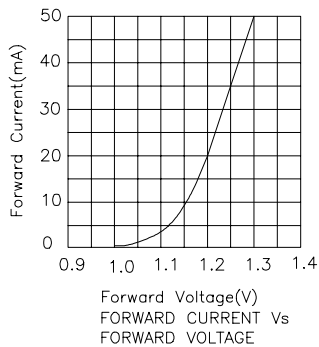
Item	Symbol	F3&SF4	SF6&SF7	Units
Power Dissipation	$P_d$	100	100	mW
Forward Current	$I_F$	50	50	mA
Peak Forward Current	$I_p$	1.2	1	A
Reverse Voltage	$V_R$	5	5	V
Operating Temperature	$T_{opr}$	-40~ +85	-40~ +85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40~ +85	-40~ +85	$^\circ\text{C}$

**Notes:**

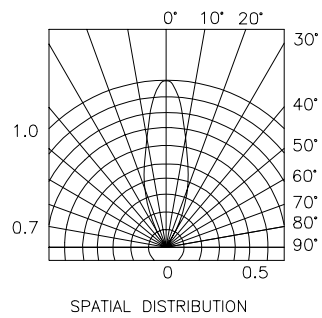
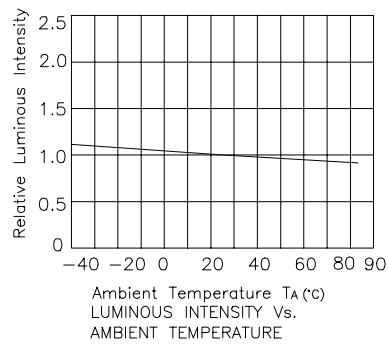
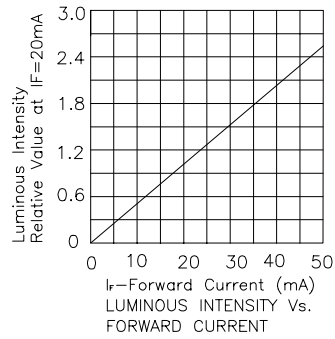
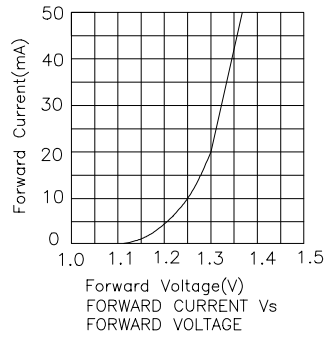
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



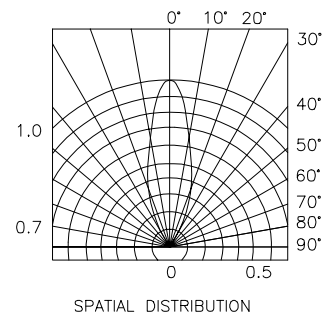
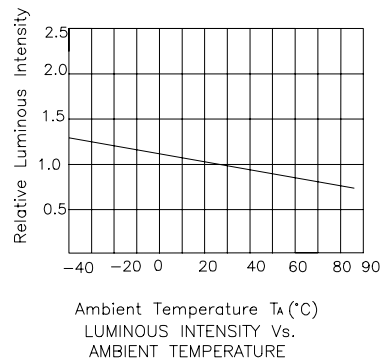
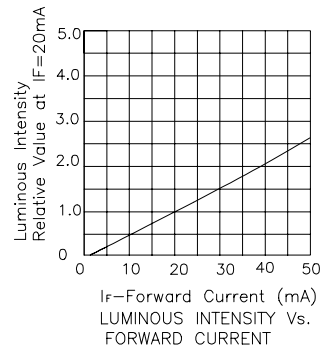
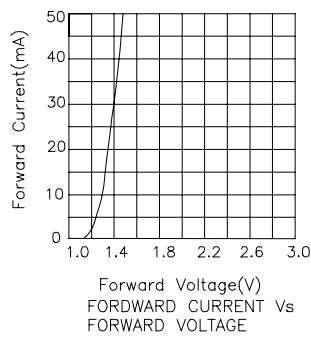
## L-53F3C, L-53F3BT



## L-53SF4C, L-53SF4BT



## L-53SF6C, L-53SF6BT



## L-53SF7C, L-53SF7BT

