

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

L53SF6C L53SF6BT L53SF7C L53SF7BT

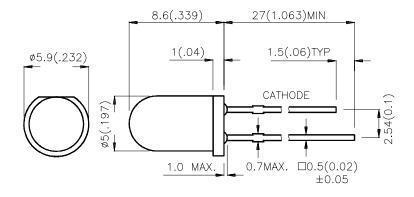
#### **Features**

- •MECHANICALLY AND SPECTRALLY MATCHED TO THE L-51P3C PHOTOTRANSISTOR.
- •BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

## **Description**

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.

SPEC NO:CDA0185 APPROVED: J.LU REV NO: V.1 CHECKED: DATE: OCT/21/2001 DRAWN: X.Q.ZHENG PAGE: 1 OF 4



## **Selection Guide**

Part No.	Dice	Lens Type	<b>Po (mW/sr)</b> @20mA		Po (mW/sr) @50mA		<b>Viewing</b> Angle
			Min.	Тур.	Min.	Тур.	201/2
L53SF6C	GaAlAs	WATER CLEAR	10	40	50	100	30°
L53SF6BT	GaAlAs	BLUE TRANSPARENT	10	40	50	100	30°
L53SF7C	GaAlAs	WATER CLEAR	10	40	50	100	30°
L53SF7BT	GaAlAs	BLUE TRANSPARENT	10	40	50	100	30°

Note

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

Item	P/N	Symbol	Тур.	Max.	Unit	Condition
Forward Voltage	SF6 SF7	V <sub>F</sub>	1.35 1.4	1.6 1.8	V	IF=20mA
Reverse Current	SF6 SF7	I <sub>R</sub>	-	10 10	uA	VR=5V
Junction Capacitance	SF6 SF7	С	30 30	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	SF6 SF7	λΡ	860 850	-	nm	IF=20mA
Spectral Bandwidth	SF6 SF7	Δλ	50 41	-	nm	IF=20mA

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

Item	Symbol	SF6&SF7	Units
Power Dissipation	Pt	100	mW
Forward Current	ļ <sub>F</sub>	50	mA
Peak Forward Current[1]	l <sub>P</sub>	1	А
Reverse Voltage	$V_R$	5	V
Operating Temperature	TA	-40~ +85	°C
Storage Temperature	Tstg	-40~ +85	°C

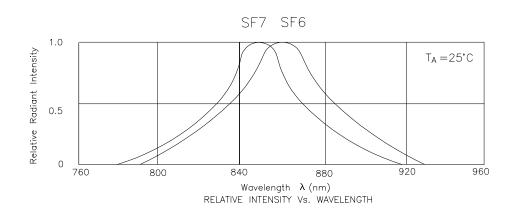
Notes:

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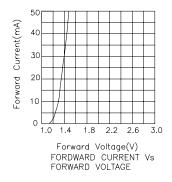
<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

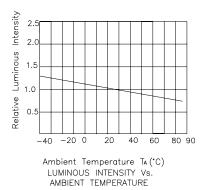
<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

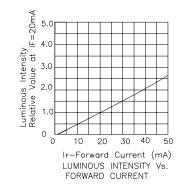


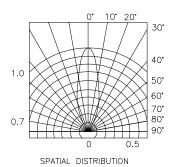


## L53SF6C, L53SF6BT





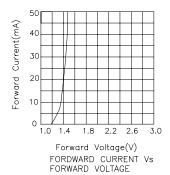


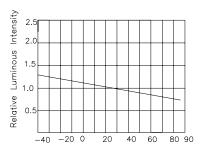


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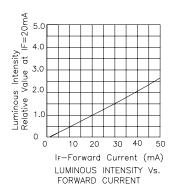
# Kingbright

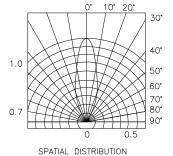
# L53SF7C, L53SF7BT





Ambient Temperature T₄(℃) LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE





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