

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

L-34F3C	L-34F3BT
L-34SF4C	L-34SF4BT
L-34SF6C	L-34SF6BT
L-34SF7C	L-34SF7BT
L-34SF/C	L-34SF/BT

### **Features**

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

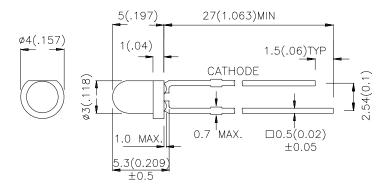
### **Description**

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  $\pm 0.25 (0.01\mbox{"})$  unless otherwise noted.
- 3. Lead spacing is measured where the lead emerge package.
- 4. Specifications are subject to change without notice.

SPEC NO: KDA0437 APPROVED: J.LU REV NO: V.1 CHECKED: DATE: SEP/21/2001 DRAWN: J.X.FU PAGE: 1 OF 5

## **Selection Guide**

Part No. Dice	Dice	Dice Lens Type	<b>Po (mW/sr)</b> @20mA		Po (mW/sr) @50mA		Viewing Angle
			Min.	Тур.	Min.	Тур.	201/2
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:

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

Item	P/N	Symbol	Тур.	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	С	90 90 30 30	-	pF	V=0 f=1MHz	
Peak Spectral Wavelength	F3 SF4 SF6 SF7	λР	940 880 860 850	-	nm	IF=20mA	
Spectral Bandwidth	F3 SF4 SF6 SF7	Δλ	50 50 50 41	-	nm	IF=20mA	

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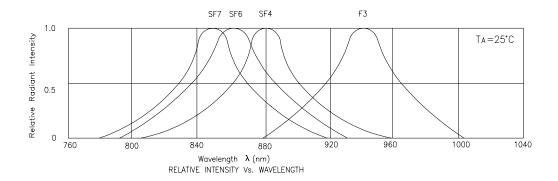
<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

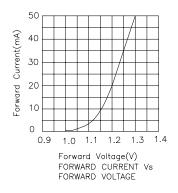
Item	Symbol	F3&SF4	SF6&SF7	Units
Power Dissipation	Pd	100	100	mW
Forward Current	I <sub>F</sub>	50	50	mA
Peak Forward Current	l <sub>P</sub>	1.2	1	Α
Reverse Voltage	V <sub>R</sub>	5	5	V
Operating Temperature	Topr	-40~ +85	-40~ +85	°C
Storage Temperature	Tstg	-40~ +85	-40~ +85	°C

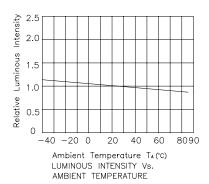
#### Notes

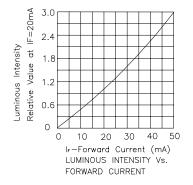
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 4mm below package base.

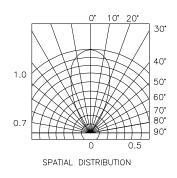


## L-34F3C, L-34F3BT



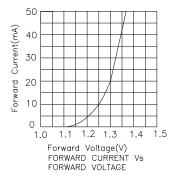


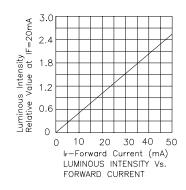


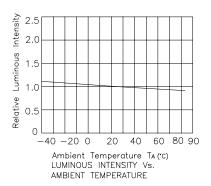


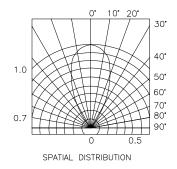
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## L-34SF4C, L-34SF4BT

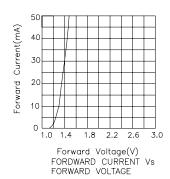


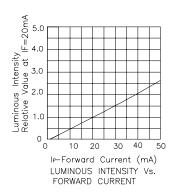


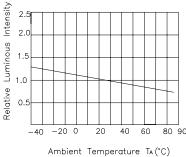


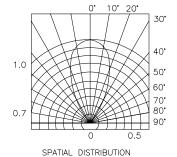


### L-34SF6C, L-34SF6BT







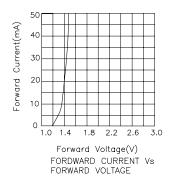


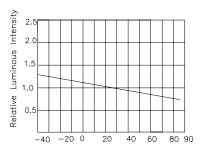
LUMINOUS INTENSITY Vs.

AMBIENT TEMPERATURE

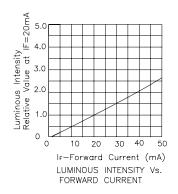
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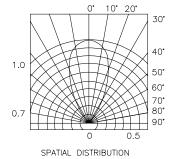
## L-34SF7C, L-34SF7BT





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





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