

Kingbright®

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

L-34F3C

L-34SF4C

L-34F3BT

L-34SF4BT

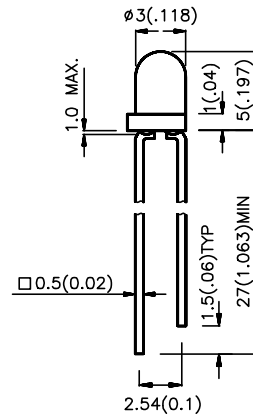
Features

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

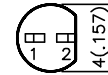
Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.
SF4 Made with Gallium Aluminum Arsenide Emitting diodes.

Package Dimensions



- 1 ANODE
2 CATHODE



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 subjected to change without notice.

Selection Guide

Part No.	Lens Type	Iv (mW/sr) @20mA		Iv (mW/sr) @50mA		Viewing Angle
		Min.	Max.	Min.	Max.	
L-34F3C	Water Clear	2	20	5	40	2 θ 1/2 50°
L-34F3BT	Blue Transparent	2	8	8	40	50°
L-34SF4C	Water Clear	2	20	5	40	50°
L-34SF4BT	Blue Transparent	2	8	8	40	50°

Note:

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

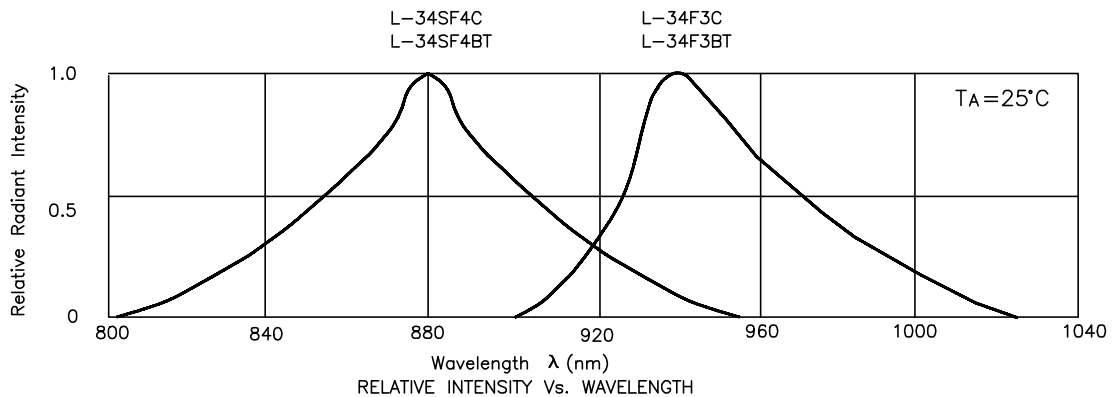
Electrical / Optical Characteristics at T_A=25°C

Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	L-34F3C L-34F3BT L-34SF4C L-34SF4BT	V _F	1.2 1.2 1.4 1.4	1.5 1.5 1.7 1.7	V	I _F =20mA
Reverse Current	L-34F3C L-34F3BT L-34SF4C L-34SF4BT	I _R	-	10 10 10 10	uA	V _R =5V
Junction Capacitance	L-34F3C L-34F3BT L-34SF4C L-34SF4BT	C _o	90 90 90 90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	L-34F3C L-34F3BT L-34SF4C L-34SF4BT	I _R	940 940 880 880	-	nm	I _F =20mA
Spectral Bandwidth	L-34F3C L-34F3BT L-34SF4C L-34SF4BT	Δλ	50 50 50 50	-	nm	I _F =20mA

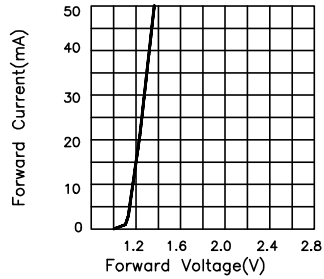
Absolute Maximum Ratings at T_A=25°C

Item	Symbol	Maximum Rating	Units
Power Dissipation	P _d	100	mW
Forward Current	I _F	50	mA
Peak Forward Current	I _p	1.2	A
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-45~ +80	°C
Storage Temperature	T _{stg}	-45~ +80	°C

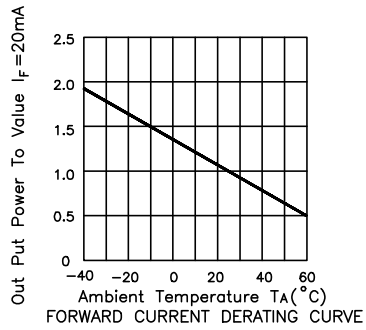
Note:
1.I_p Conduction : 1/10 Duty Cycle, 0.1ms Pluse Width.



L-34F3C / L-34F3BT

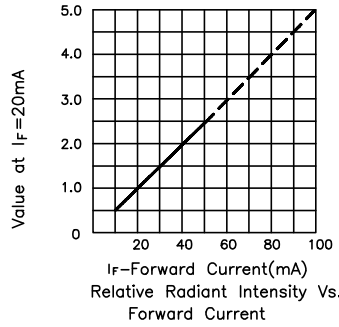


FORWARD CURRENT Vs. FORWARD VOLTAGE

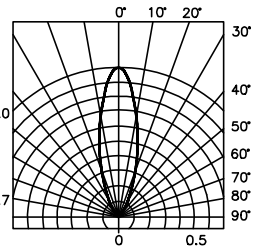


FORWARD CURRENT DERATING CURVE

Output Power Relative TO

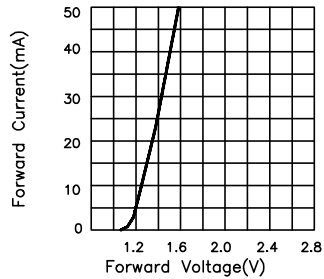


Relative Radiant Intensity

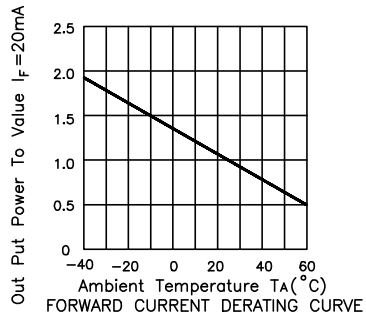


RADIATION DIAGRAM

L-34SF4C / L-34SF4BT

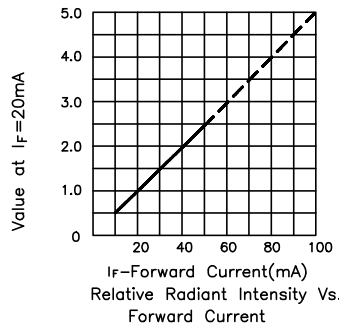


FORWARD CURRENT Vs. FORWARD VOLTAGE

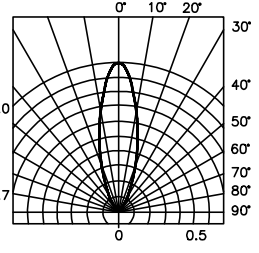


FORWARD CURRENT DERATING CURVE

Output Power Relative TO



Relative Radiant Intensity



RADIATION DIAGRAM