

# Kingbright®

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

L-934F3C

L-934SF4C

L-934F3BT

L-934SF4BT

### Features

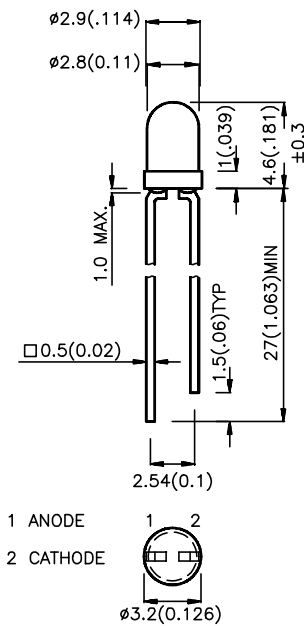
- MECHANICALLY AND SPECTRALLY MATCHED TO THE L-932P3C PHOTOTRANSISTOR.
- BOTH WATER CLEAR LENS AND BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

### Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

SF4 Made with Gallium Aluminum Arsenide Emitting diodes.

### Package Dimensions



- 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 emerges package.
  4. Specifications are subjected to change without notice.

### Selection Guide

Part No.	Lens Type	Iv (mW/sr) @20mA		Viewing Angle
		Min.	Max.	
L-934F3C	Water Clear	3.2	20	50°
L-934F3BT	Blue Transparent	3.2	20	50°
L-934SF4C	Water Clear	3.2	20	50°
L-934SF4BT	Blue Transparent	3.2	20	50°

Note:  
1.  $\theta_{1/2}$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

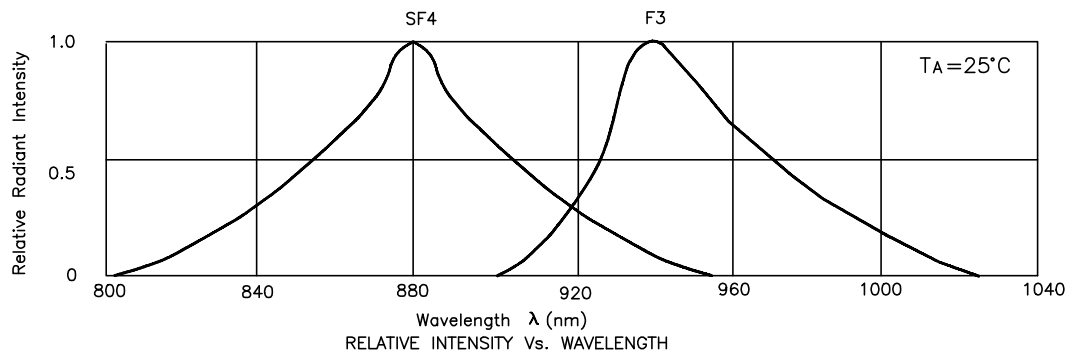
### Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	L-934F3C L-934F3BT L-934SF4C L-934SF4BT	V <sub>F</sub>	1.2 1.2 1.3 1.3	1.5 1.5 1.7 1.7	V	I <sub>F</sub> =20mA
Reverse Current	L-934F3C L-934F3BT L-934SF4C L-934SF4BT	I <sub>R</sub>	-	10 10 10 10	μA	V <sub>R</sub> =5V
Junction Capacitance	L-934F3C L-934F3BT L-934SF4C L-934SF4BT	C <sub>o</sub>	90 90 90 90	-	pF	V=0 f=1MHz
Peak Spectral Wavelength	L-934F3C L-934F3BT L-934SF4C L-934SF4BT	I <sub>R</sub>	940 940 880 880	-	nm	I <sub>F</sub> =20mA
Spectral Bandwidth	L-934F3C L-934F3BT L-934SF4C L-934SF4BT	Δλ	50 50 50 50	-	nm	I <sub>F</sub> =20mA

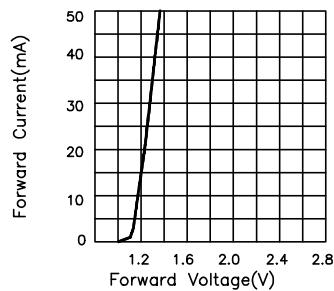
### Absolute Maximum Ratings at T<sub>A</sub>=25°C

Item	Symbol	Maximum Rating	Units
Power Dissipation	P <sub>d</sub>	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>opr</sub>	-45~ +80	°C
Storage Temperature	T <sub>stg</sub>	-45~ +80	°C

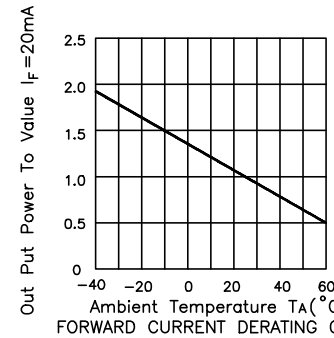
Note:  
1.I<sub>p</sub> Condition : 1/10 Duty Cycle, 0.1ms Pluse Width.



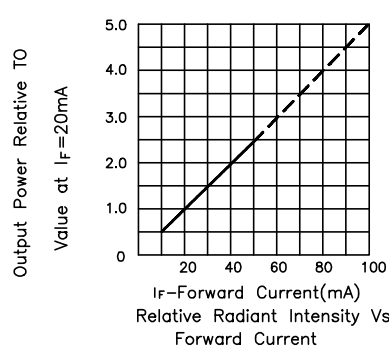
L-934F3C/L-934F3BT



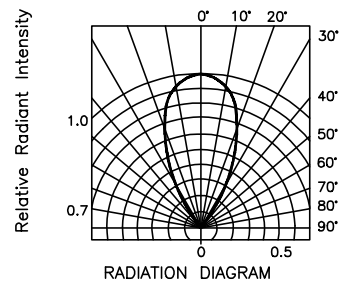
FORWARD CURRENT VS. FORWARD VOLTAGE



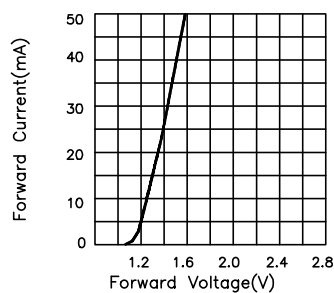
FORWARD CURRENT DERATING CURVE



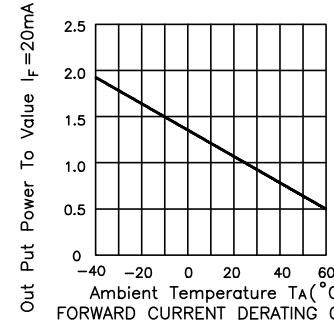
Relative Radiant Intensity Vs. Forward Current



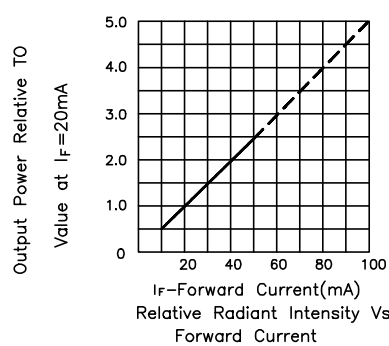
L-934SF4C/L-934SF4BT



FORWARD CURRENT VS. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



Relative Radiant Intensity Vs. Forward Current

