Kingbright

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

L-53F3BT

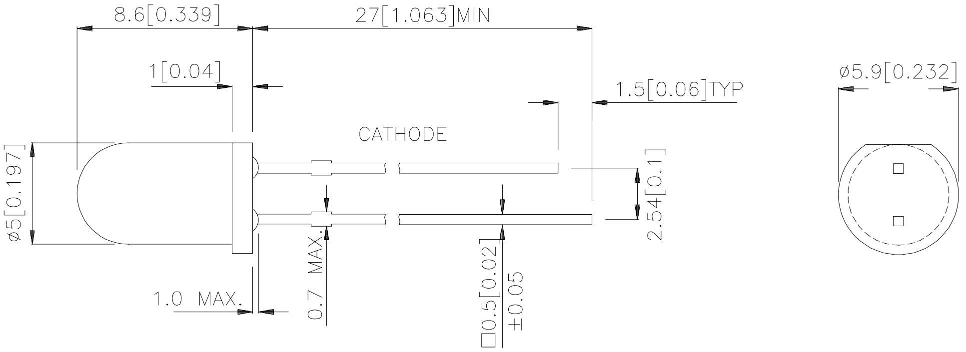
Features

- ●MECHANICALLY AND SPECTRALLY MATCHED TO THE L-51P3C PHOTOTRANSISTOR.
- ● BLUE TRANSPARENT LENS AVAILABLE HIGH POWER OUTPUT.

Description

F3 Made with Gallium Arsenide Infrared Emitting diodes.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±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) @ 20 mA *50 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-53F3BT	GaAs	BLUE TRANSPARENT	4	20	30°
			*7	*30	30°

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. * Luminous intensity with asterisk is measured at 50mA.

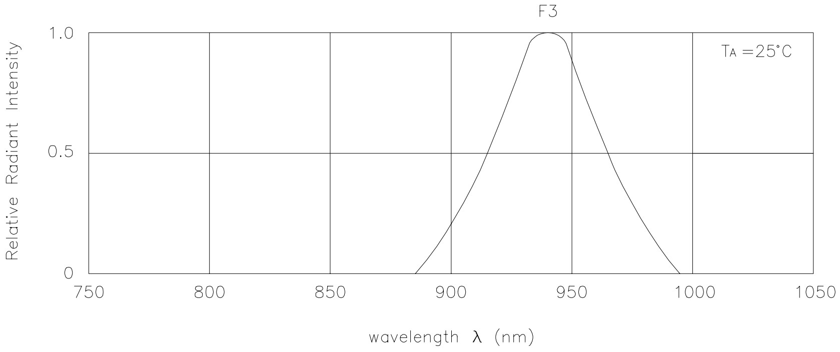
Electrical / Optical Characteristics at T_A=25°C

Item	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	F3	V_F	1.2	1.6	V	I_F=20mA
Reverse Current	F3	I_R	-	10	uA	V_R=5V
Capacitance	F3	C	90	-	pF	V_F=0V; f=1MHz
Peak Wavelength	F3	λP	940	-	nm	I_F=20mA
Spectral Line Half-width	F3	Δλ1/2	50	-	nm	I_F=20mA

Absolute Maximum Ratings at T_A=25°C

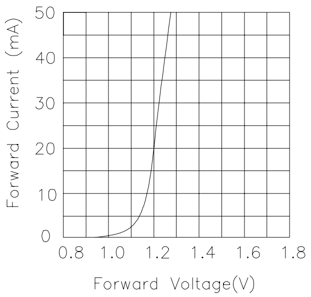
Item	Symbol	F3	Units
Power Dissipation	P_T	100	mW
DC Forward Current	I_F	50	mA
Peak Forward Current [1]	i_{FS}	1.2	A
Reverse Voltage	V_R	5	V
Operating /Storage Temperature	-40° C To +85°C		
Lead Solder Temperature [2]	260°C For 5 Seconds		

Notes:
1. 1/100 Duty Cycle, 10us Pulse Width.
2. 2mm below package base.

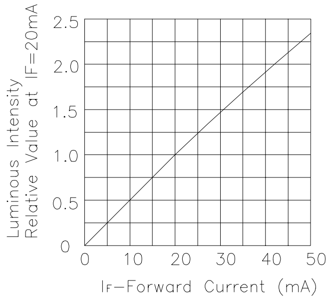


RELATIVE INTENSITY Vs. WAVELENGTH

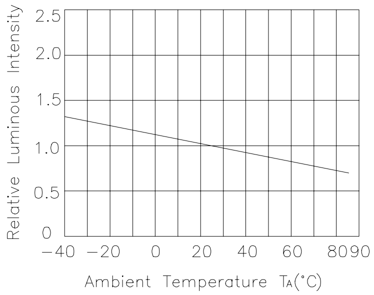
L-53F3BT



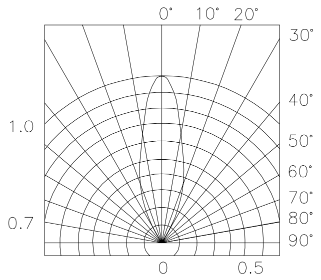
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



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