Kingbright

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

PRELIMINARY SPEC

L-7104F3C

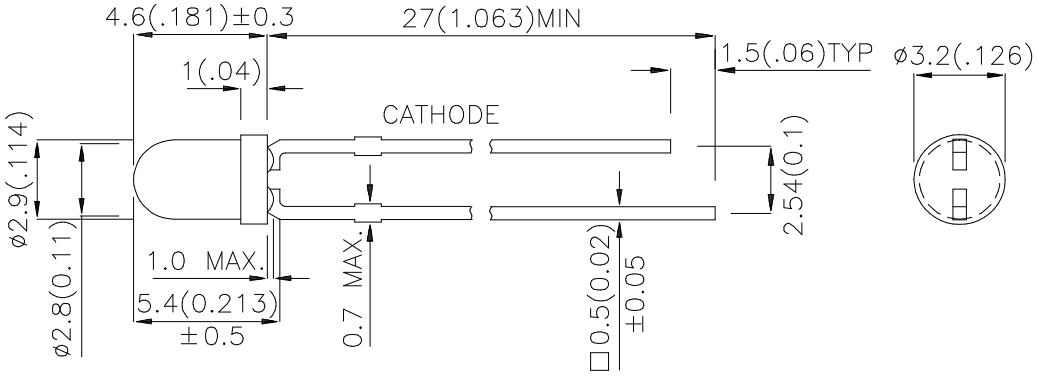
Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- WATER CLEAR LENS.
- RoHS COMPLIANT.

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 leads emerge from the package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) @ 20mA*50mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-7104F3C	GaAs	WATER CLEAR	7	30	34°
			*18	*80	

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.

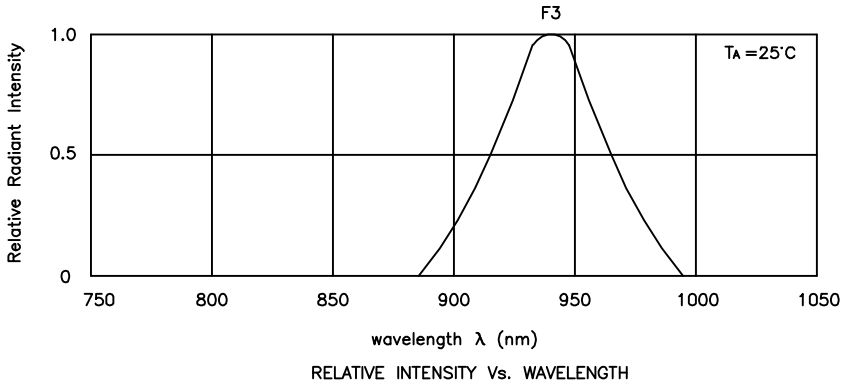
Electrical / Optical Characteristics at T_A=25°C

Item	P/N	Symbol	Typ.	Max.	Units	Test Conditions
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 Spectral Wavelength	F3	λP	940	-	nm	I_F=20mA
Spectral Bandwidth	F3	Δλ1/2	50	-	nm	I_F=20mA

Absolute Maximum Ratings at T_A=25°C

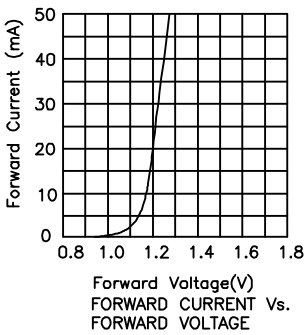
Parameter	Symbol	F3	Units
Power Dissipation	P_T	100	mW
DC Forward Current	I_F	50	mA
Peak Forward Current[1]	i_{FS}	1.2	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_A	-40 To +85	°C
Storage Temperature	T_{STG}	-40 To +85	°C
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

Notes:
1. 1/100 Duty Cycle, 10us Pulse Width.
2. 2mm below package base.
3. 5mm below package base.

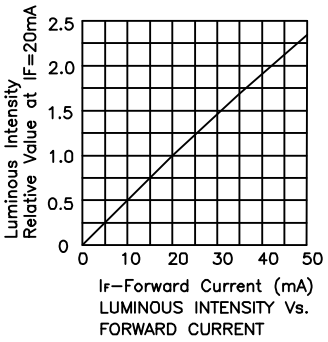


RELATIVE INTENSITY Vs. WAVELENGTH

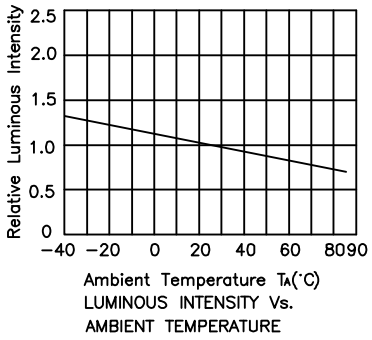
L-7104F3C



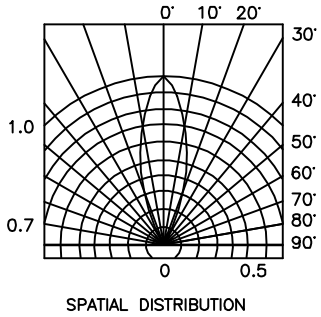
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Remarks:
If special sorting is required (e.g. binning based on forward voltage or radiant intensity),
the typical accuracy of the sorting process is as follows:
1. Radiant Intensity: +/-15%
2. Forward Voltage: +/-0.1V
Note: Accuracy may depend on the sorting parameters.