Kingbright

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

Part Number: WP7113SF4BT

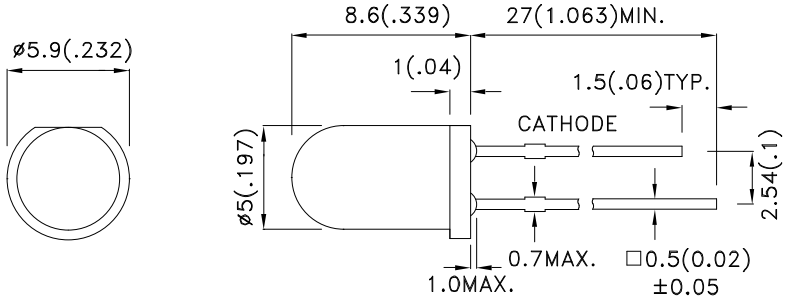
Features

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

Description

SF4 Made with Gallium Aluminum 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 from the package.
4. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) [2] @ 20mA *50mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP7113SF4BT	SF4 (GaAlAs)	BLUE TRANSPARENT	4	20	20°
			*7	*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;Radiant Intensity/ luminous flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

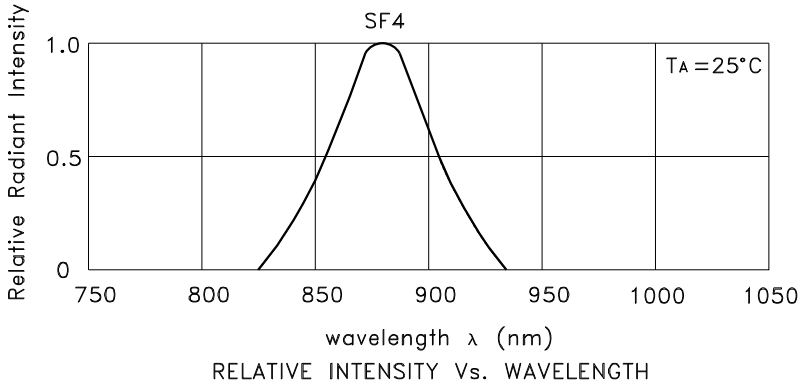
Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	SF4	V_F	1.3	1.6	V	I_F=20mA
Reverse Current	SF4	I_R		10	uA	V_R = 5V
Capacitance	SF4	C	90		pF	V_F=0V;f=1MHz
Peak Spectral Wavelength	SF4	λP	880		nm	I_F=20mA
Spectral Bandwidth	SF4	Δλ1/2	50		nm	I_F=20mA

Note:
1. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

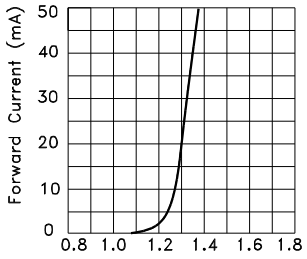
Parameter	Symbol	SF4	Units
Power dissipation	P_T	80	mW
DC Forward Current	I_F	50	mA
Peak Forward Current [1]	i_{FS}	1.2	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_A	-40 To +85	°C
Storage Temperature	T_{STG}	-40 To +85	°C
Lead Solder Temperature [2]	260°C For 3 Seconds		
Lead Solder Temperature [3]	260°C For 5 Seconds		

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

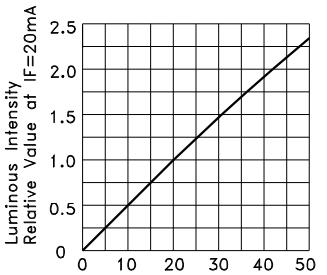


RELATIVE INTENSITY Vs. WAVELENGTH

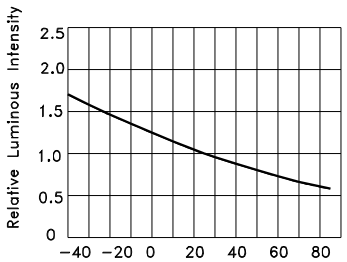
WP7113SF4BT



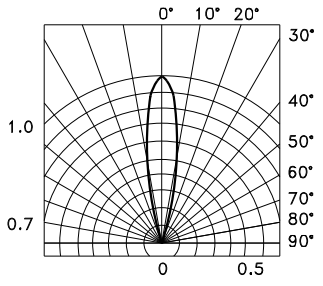
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



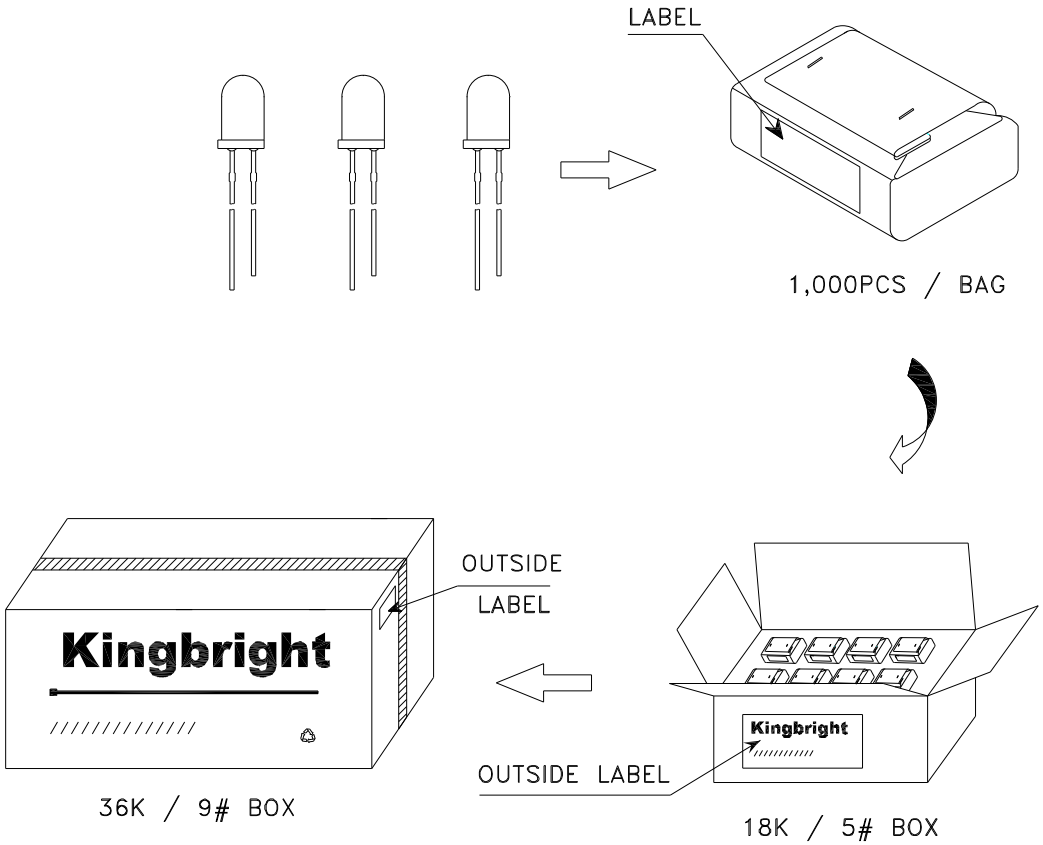
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Kingbright

PACKING & LABEL SPECIFICATIONS **WP7113SF4BT**



Kingbright

Q.C. QC XX XX XX PASSED

TYPE NO : WP7113xxx

QUANTITY : 1,000 pcs

S/N : XX CODE: XX

LOT NO : XX-XXXXX

RoHS Compliant