L-53SF7C

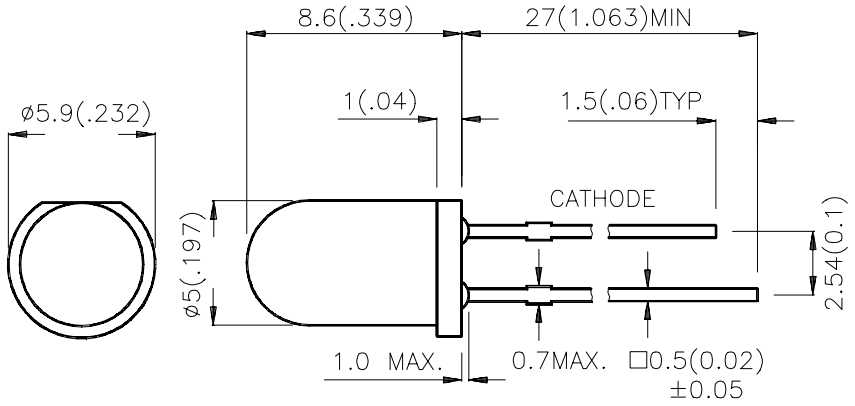
Features

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

Description

SF7 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 package.
4. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Po(mW/sr) @ 20 mA *50mA		Viewing Angle
			Min.	Typ.	2θ1/2
L-53SF7C	GaAlAs	WATER CLEAR	10	40	30°
			*50	*100	30°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

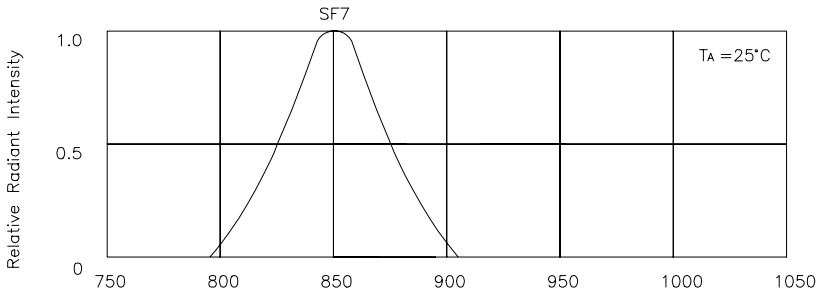
Electrical / Optical Characteristics at T_A=25°C

Parameter	P/N	Symbol	Typ.	Max.	Unit	Condition
Forward Voltage	SF7	V_F	1.4	1.6	V	I_F=20mA
Reverse Current	SF7	I_R	-	10	uA	V_R=5V
Junction Capacitance	SF7	C	30	-	pF	V_F=0V, f=1MHz
Peak Spectral Wavelength	SF7	λP	850	-	nm	I_F=20mA
Spectral Bandwidth	SF7	Δλ1/2	50	-	nm	I_F=20mA

Absolute Maximum Ratings at T_A=25°C

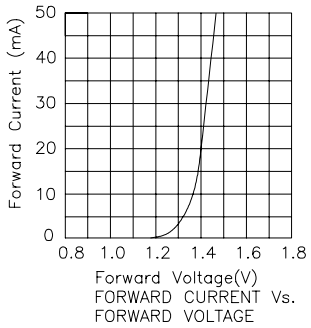
Parameter	Symbol	SF7	Units
Power Dissipation	P_T	100	mW
Forward Current	I_F	50	mA
Peak Forward Current[1]	i_{FS}	1	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_A	-40~ +85	°C
Storage Temperature	T_{STG}	-40~ +85	°C
Lead Solder Temperature[2]	260°C For 5 Seconds		

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

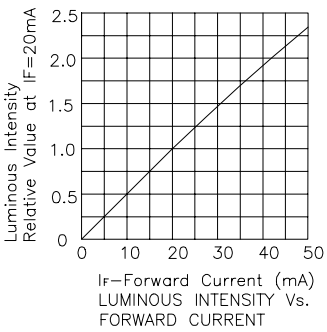


RELATIVE INTENSITY Vs. WAVELENGTH

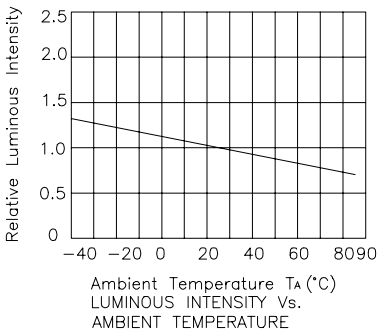
L-53SF7C



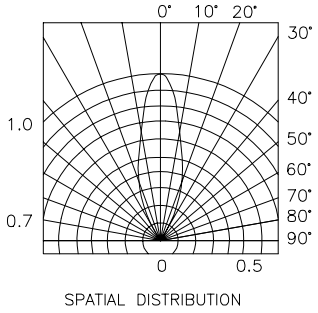
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION