

SPECIFICATIONS **CL50IR840C-70**

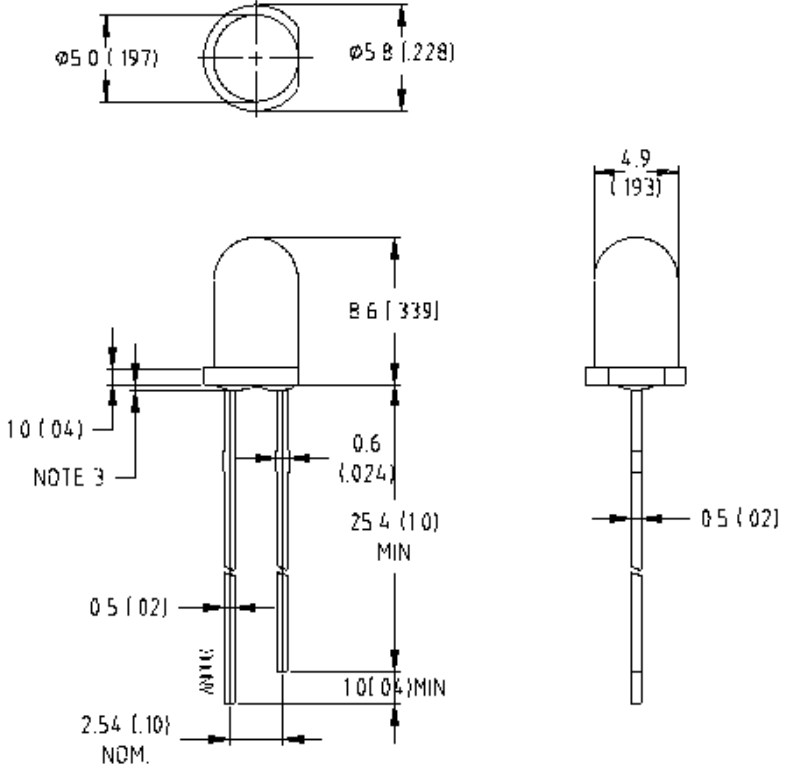
OUTLINES DIMENSIONS

DESCRIPTION

- Round Type
- 5mm Diameter
- Lens Color: Water Clear
- With Flange
- Solder leads without standoff

FEATURES

- Infrared Emitting Diode
- Technology: AlGaAs
- Peak Wavelength $\lambda_p = 840\text{nm}$ Typ



- Notes:
1. All Dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CL50IR840C-70	AlGaAs	Infrared	Water Clear	70°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	70	mW
Pulse Current Forward Current	IFP	100	mA
Continuous Forward Current	IF	35	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-30~+80	°C
Storage Temperature Range	TSTG	-40~+100	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 280 °C/ 5sec			

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Radiant Intensity	IE	IF = 20mA	-	4	-	mW/ Sr
Forward Voltage	VF	IF = 20mA	-	1.4	2.0	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Viewing Angle	2θ1/2	IF = 20mA	-	70	-	deg
Peak Wavelength	λP	IF = 20mA	835	840	845	nm

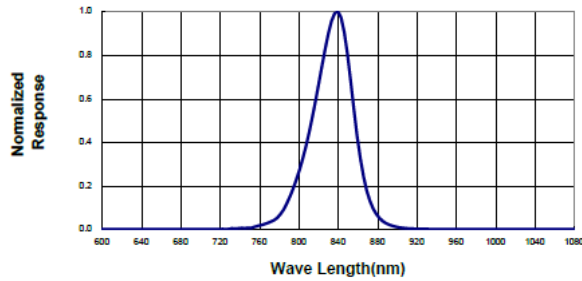
*Tolerance of viewing angle: -10 / +5 deg.



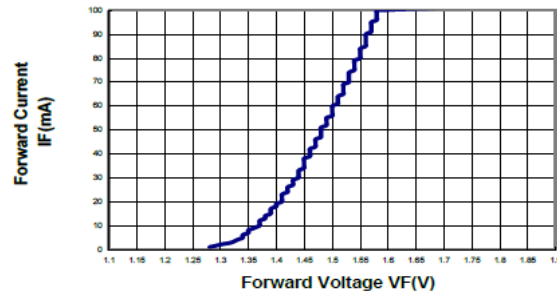
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OPTICAL CHARACTERISTIC CURVES

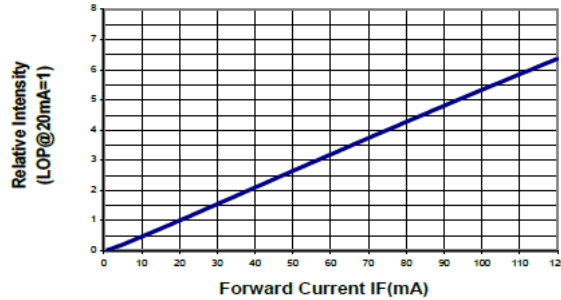
Spectral Radiance (Peak @ 840nm)



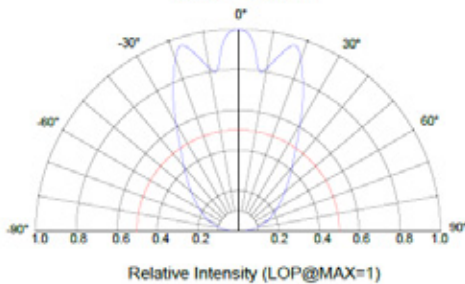
Forward Current vs Forward Voltage



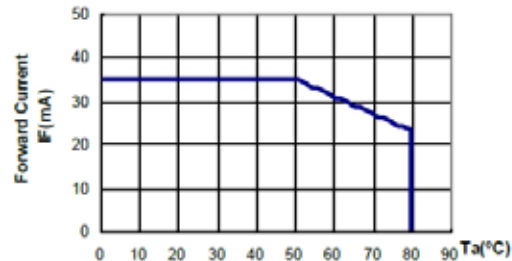
Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Current Derating Curve



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