



# LIR03AF-30

## LIGHT EMITTING DIODE

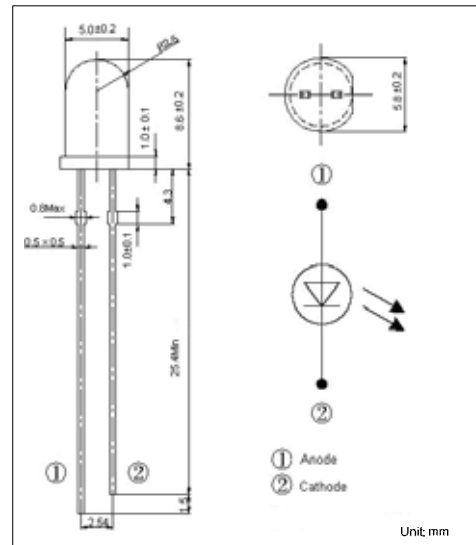
### LED LAMP

#### DESCRIPTION

UTC **LIR03AF-30** is a high intensity infrared emitting diode, molded in a water clear plastic package.

#### APPLICATIONS

- \* TV, VCR, DVD
- \* Sound equipment
- \* Air conditioner
- \* Infrared applied system



#### ORDERING INFORMATION

Ordering Number
LIR03AF-30

<p>L I R 0 3 A F - 3 0</p>	<ul style="list-style-type: none"> <li>(1)View Angle</li> <li>(2)Package Outline</li> <li>(3)Encapsulate Type</li> <li>(4)Diameter of Lamp</li> <li>(5)Color Type</li> <li>(6)Product Type</li> </ul>	<ul style="list-style-type: none"> <li>(1) 30: 30°±3°</li> <li>(2) F: Round with Brim</li> <li>(3) A: Colorless Transparent</li> <li>(4) 03: Φ3</li> <li>(5) IR: Infra Red 940nm</li> <li>(6) L: Lamp</li> </ul>
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25 )

PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	20	mA
Peak Forward Current (Pulse Test)	$I_{FM}$	1000	mA
Power Dissipation	$P_D$	150	mW
Operation Temperature	$T_{OPR}$	-30 ~ 65	
Storage Temperature	$T_{STG}$	-40 ~ 80	

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL OPTICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	$V_F$	$I_F=20mA$	1.1		1.3	V
	$V_F$	$I_F=200mA$	1.3		1.5	V
Reverse Current	$I_R$	$V_R=5V$			10	$\mu A$
Peak Wavelength	$\lambda_p$	$I_F=20mA$		940		nm
Spectral Radiation Bandwidth	$\Delta\lambda$	$I_F=20mA$		45		nm
Viewing Angle	2 $\theta$ 1/2			30		deg
Raise Time	$t_R$	$I_F=20mA$		2		$\mu s$
Fall Time	$t_F$	$I_F=20mA$		1		$\mu s$
Luminous Intensity	$I_e$	$I_F=100mA,$ $t_p=20ms$	50		100	mW/sr

■ TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

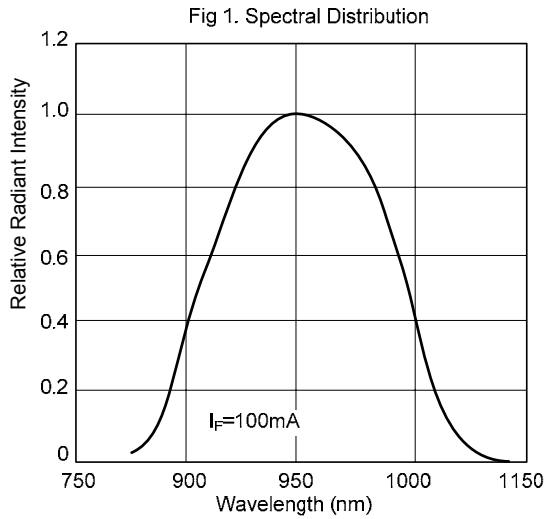
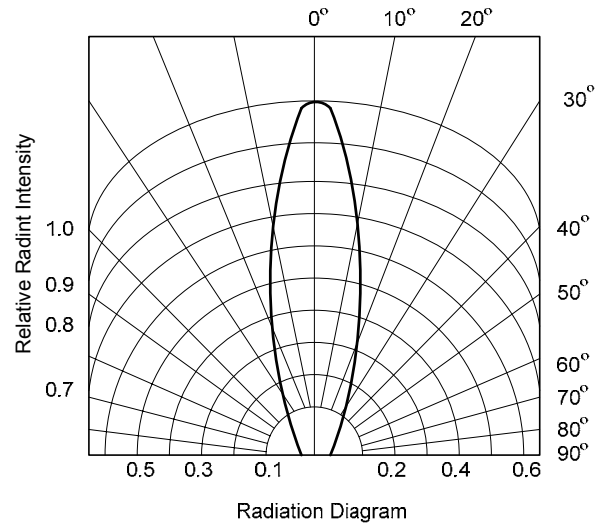


Fig 2. Relative Radiant Intensity vs. Angular Displacement  
Radiation Diagram Ta=25°C



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