



# LIS05AF-20

## INFRARED LAMP LED

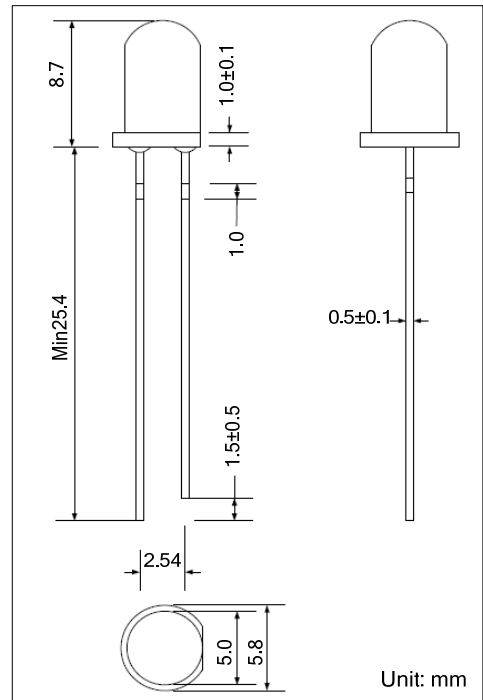
### LIS05AF-20

#### DESCRIPTION

The UTC **LIS05AF-20** is kind of a infrared lamp led which is specially applicatted for the lamp. The features include: free air transmission system, opto-electronic switch and floppy disk drive.

#### FEATURES

- \* With Infrared applied system
- \* Internal smoke detector



#### ORDERING INFORMATION

Ordering Number
LIS05AF-20

<p>L I S 0 5 A F - 2 0</p>	<p>(1)View Angle  (2)Package Outline  (3)Encapsulate Type  (4)Diameter of Lamp  (5)Color Type  (6)Product Type</p>	<p>(1) 20: 20°±3°  (2) F: Round with Brim  (3) A: Colorless Transparent  (4) 05: Φ5  (5) IS: Infrared (850nm)  (6) L: Lamp</p>
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■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	20	mA
Peak Forward current (Note 2)	$I_{FM}$	1000	mA
Power Dissipation	$P_D$	150	mW
Operation Temperature	$T_A$	-30~+65	°C
Lead Soldering Temperature (Note 3)	$T_{SD}$	260	°C
Storage Temperature	$T_{STG}$	-40~+80	°C

Note: 1. 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.

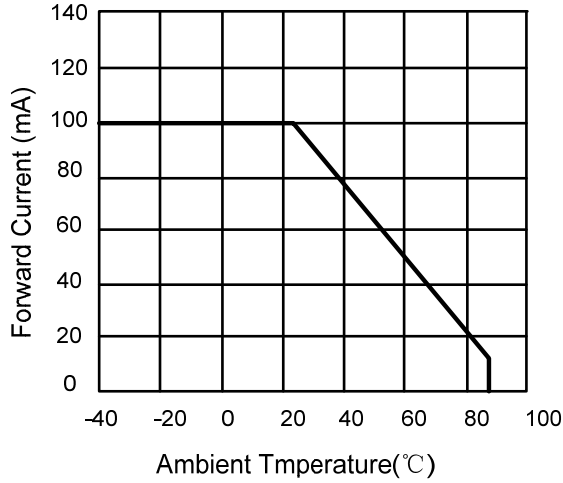
2. IFP Conditions----Pulse Width  $\leq 100\mu s$  and Duty  $\leq 1\%$ . (Pulse test)
3.  $t \leq 5s$ , to shell 2mm

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ C$ , unless otherwise specified)

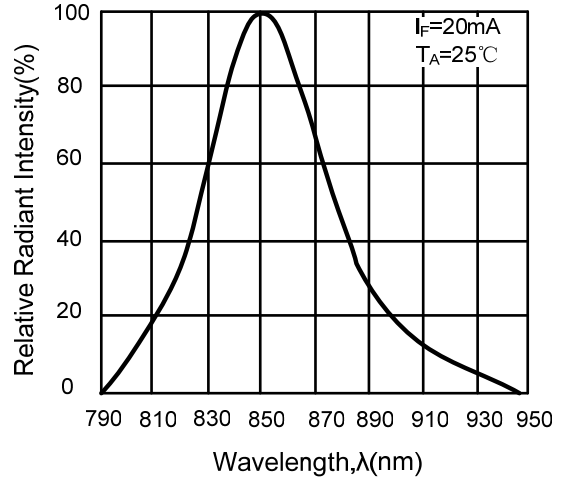
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	$V_F$	$I_F=20mA$	1.1		1.5	V
Reverse Current	$I_R$	$V_R=5V$	0		10	$\mu A$
Radiant Intensity	$E_e$	$I_F=20mA$	30		38	mW/sr
Peak Wavelength	$\lambda_p$	$I_F=20mA$		850		nm
Spectral Radiation Bandwidth	$\Delta\lambda$	$I_F=20mA$		45		nm
Viewing Angle	$2\theta_{1/2}$			20		deg
Rise Time	$T_R$	$I_F=20mA$		2		$\mu s$
Fall Time	$T_F$	$I_F=20mA$		1		$\mu s$

## TYPICAL CHARACTERISTICS

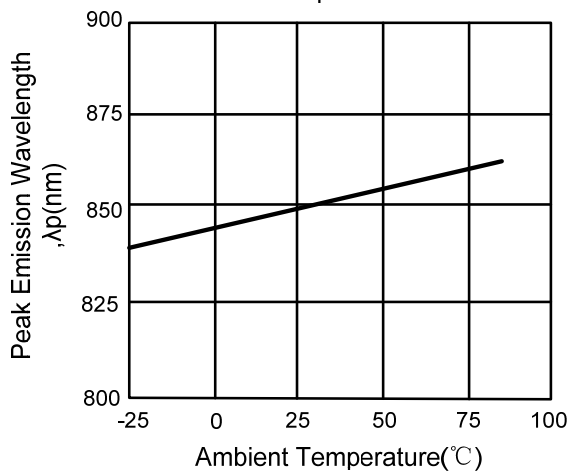
Foward Current vs. Ambient Temperature



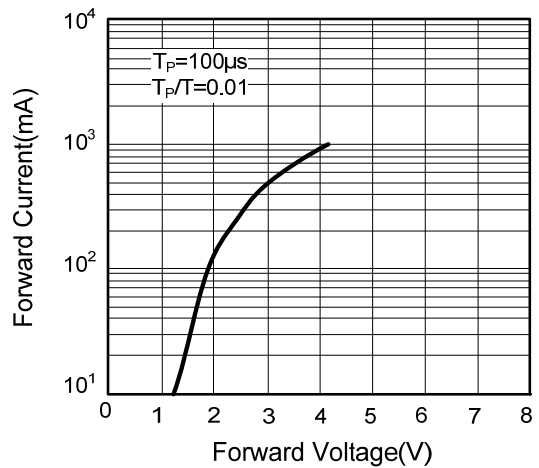
Spectral Distribution



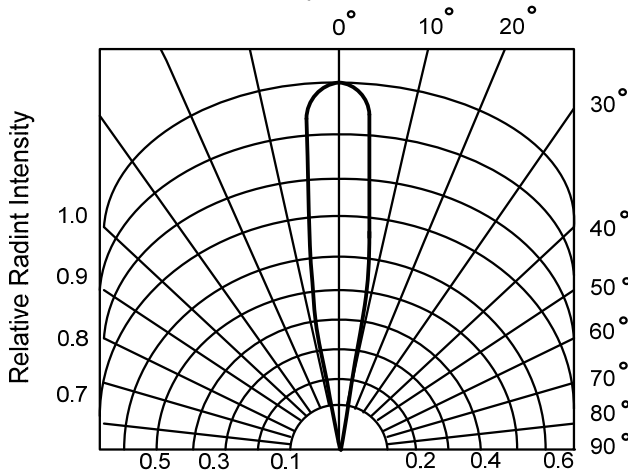
Peak Emission Wavelength Ambient Temperature



Forward Current vs. Forward Voltage



Radiant Intensity vs. Forward Current



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