



LIS05AF-15

INFRARED LAMP LED

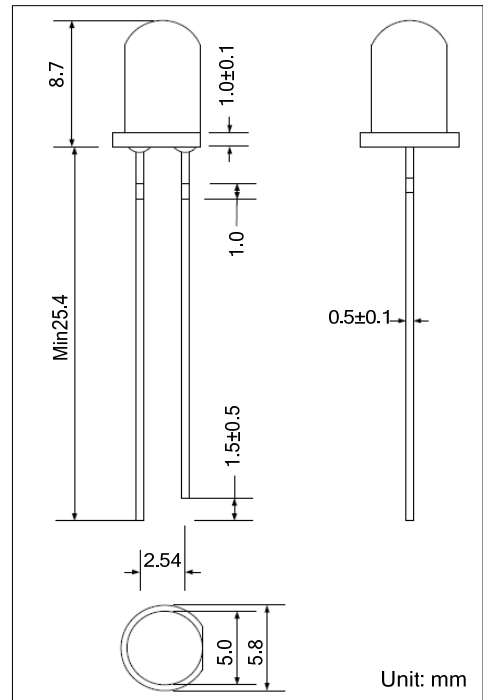
LIS05AF-15

DESCRIPTION

The UTC LIS05AF-15 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-15 |

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>L I S 0 5 A F - 1 5</p> <p>(1)View Angle (2)Package Outline (3)Encapsulate Type (4)Diameter of Lamp (5)Color Type (6)Product Type</p> | <p>(1) 15: 15°±3° (2) F: Round with Brim (3) A: Colorless Transparent (4) 05: Φ5 (5) IS: Infrared (850nm) (6) L: Lamp</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

■ 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.

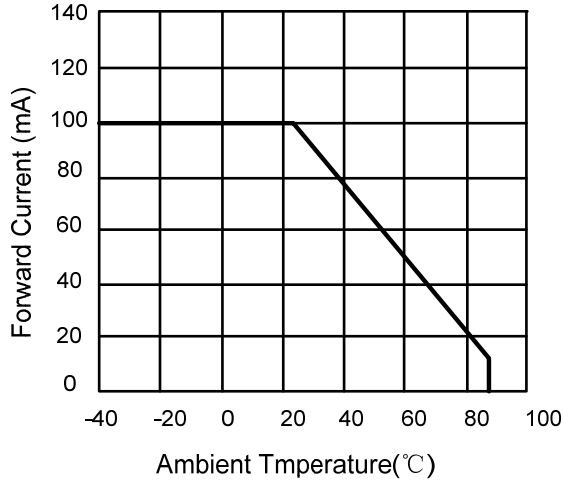
2. IFP Conditions----Pulse Width $\leq 100\mu s$ and Duty $\leq 1\%$. (Pulse test)
3. $t \leq 5s$, to shell 2mm

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

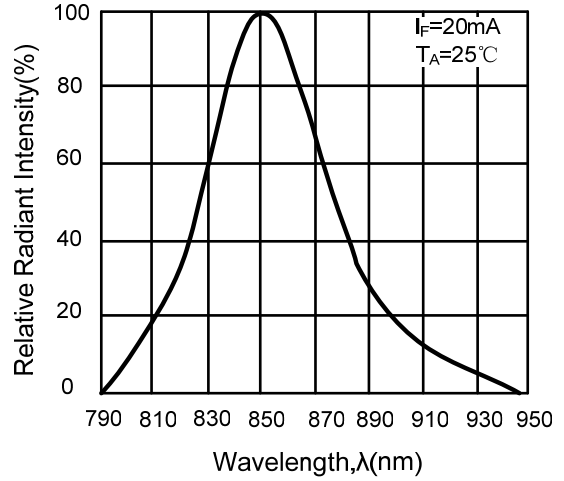
| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|------------------------------|-----------------|-----------------|-----|-----|-----|---------|
| Forward Voltage | V_F | $I_F=20mA$ | 1.1 | | 1.5 | V |
| Reverse Current | I_R | $V_R=5V$ | 0 | | 10 | μA |
| Radiant Intensity | E_e | $I_F=20mA$ | 10 | | 30 | mW/sr |
| Peak Wavelength | λ_p | $I_F=20mA$ | | 850 | | nm |
| Spectral Radiation Bandwidth | $\Delta\lambda$ | $I_F=20mA$ | | 45 | | nm |
| Viewing Angle | $2\theta_{1/2}$ | | | 15 | | deg |
| Rise Time | T_R | $I_F=20mA$ | | 2 | | μs |
| Fall Time | T_F | $I_F=20mA$ | | 1 | | μs |

TYPICAL CHARACTERISTICS

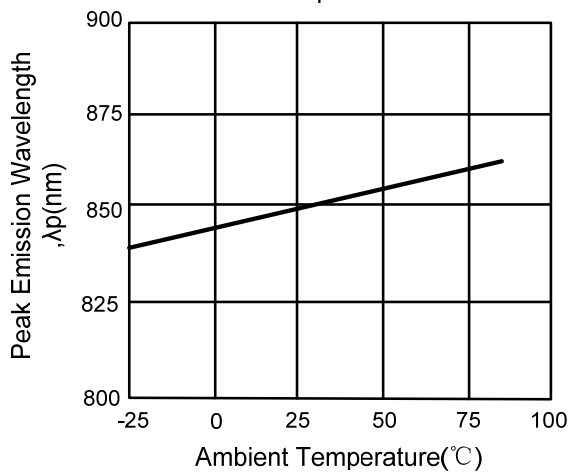
Foward Current vs. Ambient Temperature



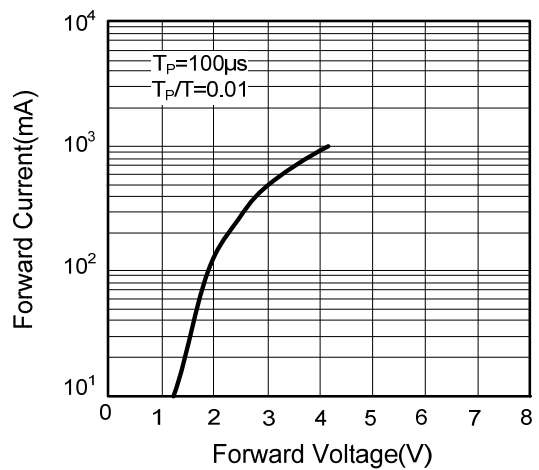
Spectral Distribution



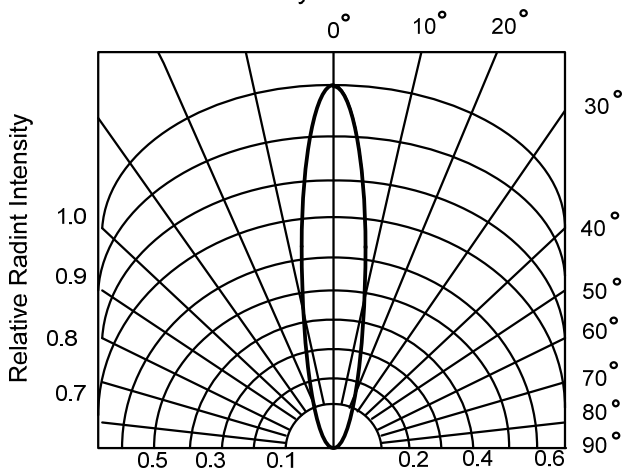
Peak Emission Wavelength Ambient Temperature



Forward Current vs. Forward Voltage



Radiant Intensity vs. Forward Current



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