

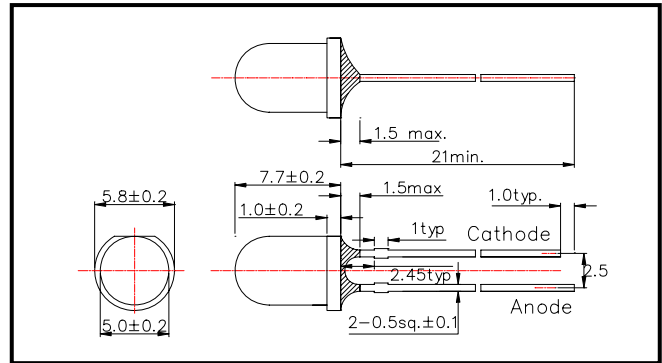
L890-04AU Infrared LED Lamp

L890-04AU is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. On forward bias it emits a spectral band of radiation, which peaks at 880nm.

◆ Specifications

| | |
|----------------------|--------------------|
| 1) Product Name | Infrared LED Lamp |
| 2) Type No. | L890-04AU |
| 3) Chip | |
| (1) Chip Material | AlGaAs |
| (2) Chip Active Area | 400umx400um |
| (2) Peak Wavelength | 880nm typ. |
| 4) Package | |
| (1) Type | Φ5mm clear molding |
| (2) Resin Material | Epoxy Resin |
| (3) Lead Frame | Soldered |

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temperature |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation | P _D | 150 | mW | T _a =25°C |
| Forward Current | I _F | 100 | mA | T _a =25°C |
| Pulse Forward Current | I _{FP} | 500 | mA | T _a =25°C |
| Reverse Voltage | V _R | 5 | V | T _a =25°C |
| Operating Temperature | T _{OPR} | -30 ~ +85 | °C | |
| Storage Temperature | T _{STG} | -30 ~ +100 | °C | |
| Soldering Temperature | T _{SOL} | 260 | °C | |

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

◆ Electro-Optical Characteristics [T_a=25°C]

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|----------------------|------------------|---|---------|---------|---------|-------|
| Forward Voltage | V _F | I _F =50mA DC | | 1.45 | 1.70 | V |
| | | I _F =100mA, t _p =20ms | | 1.65 | 1.95 | |
| Reverse Current | I _R | V _R =5V | | | 10 | uA |
| Total Radiated Power | P _O | I _F =50mA DC | 10.0 | 15.0 | | mW |
| | | I _F =100mA, t _p =20ms | | 30.0 | | |
| Radiant Intensity | I _E | I _F =50mA DC | 15 | 30 | | mW/sr |
| | | I _F =100mA, t _p =20ms | | 60 | | |
| Peak Wavelength | λ _P | I _F =50mA DC | 865 | 880 | 895 | nm |
| Half Width | Δλ | I _F =50mA DC | | 75 | | nm |
| Viewing Half Angle | θ _{1/2} | I _F =50mA DC | | ±20 | | deg. |
| Rise Time | t _r | I _F =50mA DC | | 800 | | ns |
| Fall Time | t _f | I _F =50mA DC | | 400 | | ns |

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512