

INFRARED LIGHT EMITTING DIODE

1.GENERAL DESCRIPTIONS

AT203-A-FZY is high output power AlGaAs infrared light emitting diode,mounted in clear epoxy package.

It emits spectrally narrow band of radiation peaking at 940nm.And the device is matched with phototransistor,photodiode and infrared receiver module.

2.FEATURES

- 1) Wide beam angle.
- 2) Good linearity, high response speed.
- 3) High output power.
- 4) Low cost.

3.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

| PARAMETER | MAXIMUMRATING | UNIT |
|---|-------------------|------|
| Power Dissipation | 110 | mW |
| Peak Forward Current (300pps, 10μs pulse) | 1 | A |
| Continuous Forward Current | 100 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature Range | -40 to 85 °C | °C |
| Storage Temperature Range | -55 to +100°C | °C |
| Lead Soldering Temperature (1.6mm from body) | 260 for 3 seconds | °C |

4.ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25°C

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|--------------------------|-------------------|------|------|------|-------|----------------------|
| Radiant Intensity | I _e | 5.0 | | 9.0 | mW/sr | I _F =20mA |
| Peak Emission Wavelength | λ _{peak} | | 940 | | nm | I _F =20mA |
| Spectral Line Half-Width | Δλ | | 50 | | nm | I _F =20mA |
| Forward Voltage | V _F | | 1.2 | 1.5 | V | I _F =20mA |
| Reverse Current | I _R | | | 10 | μA | V _R =5V |
| Viewing Angle | 2θ _{1/2} | | 25 | | Deg. | |

5. TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

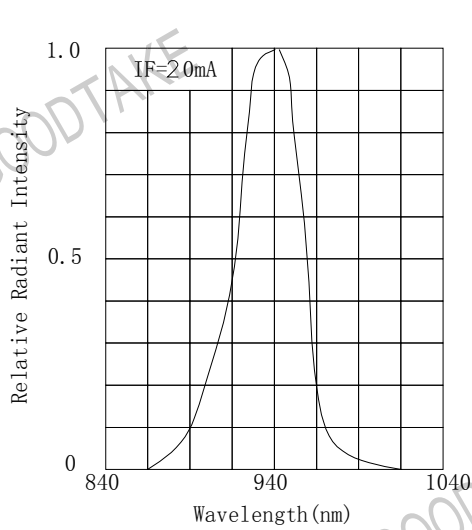


Fig. 1 Spectral Distribution

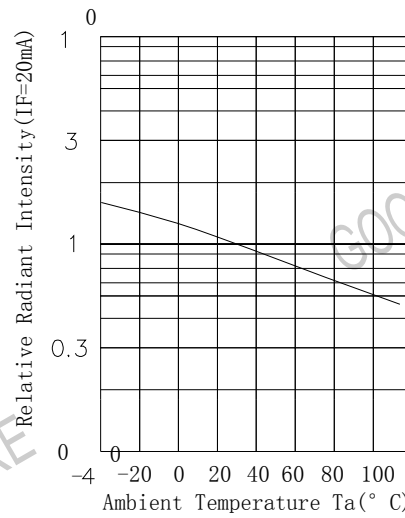


Fig. 2 Relative Radiant Intensity Vs Ambient Temperature

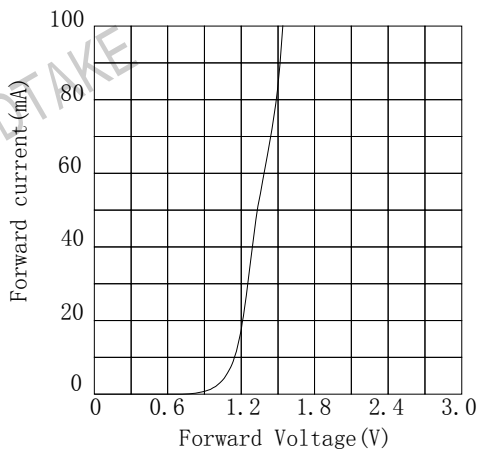


Fig. 3 Forward Current Vs Forward Voltage

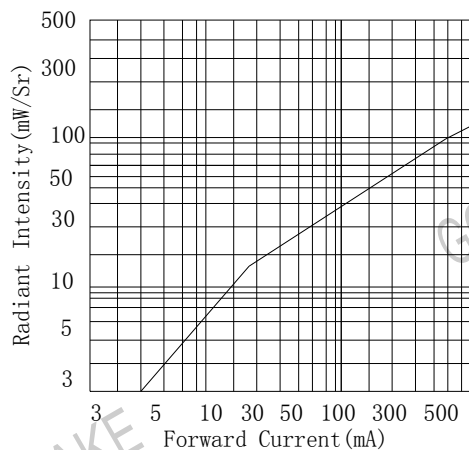


Fig. 4 Forward Current Vs Radiant Intensity

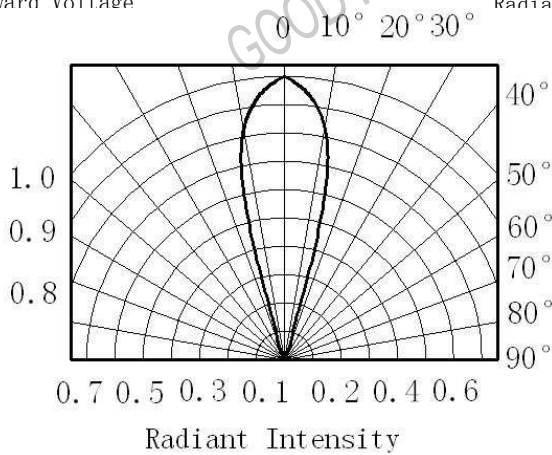
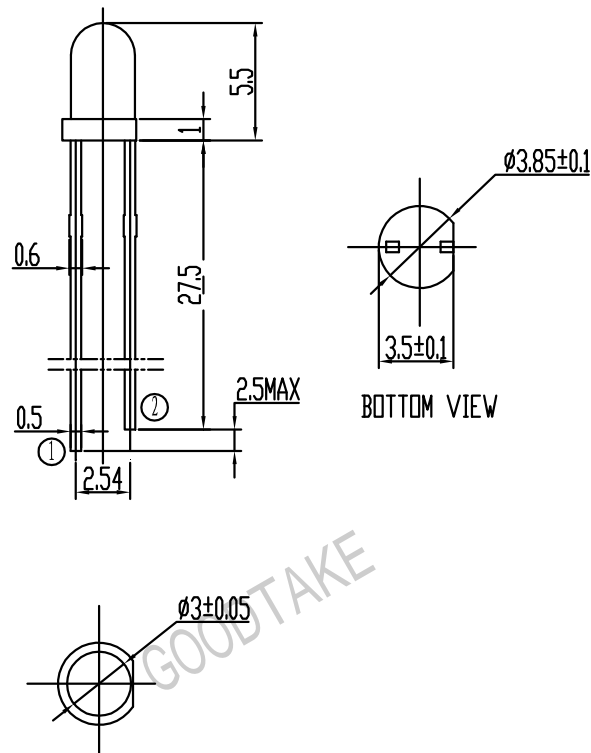


Fig. 5 Angle Vs Radiant Intensity

6.DIMENSIONS



Notes

1. All dimensions are in millimeters.
2. Tolerance is ± 0.2 unless otherwise noted.
3. An epoxy meniscus may extend about "0.5mm" down the leads.