

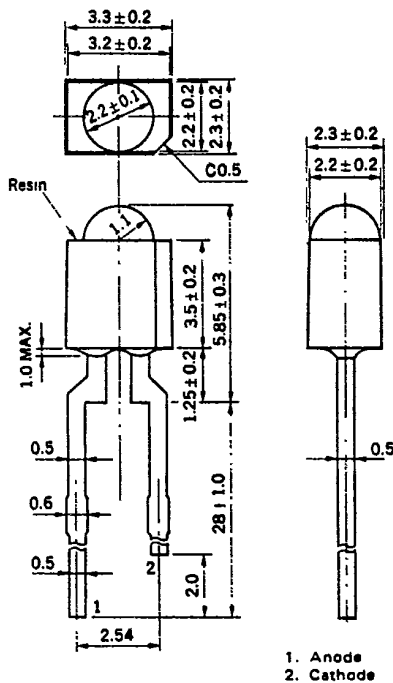
LIGHT EMITTING DIODE SE310

GaAs INFRARED EMITTING DIODE

DESCRIPTION

The SE310 is a GaAs (Gallium Arsenide) Infrared Emitting Diode which is mounted on the lead frames and molded in plastic. On forward bias, it emits a spectrally narrow band of radiation peaking at 940 nm. It is suitable for a optical switch with combination of the PH110

PACKAGE DIMENSIONS in millimeters



FEATURES

- Small size plastic molded package.
- High output power.
- Long life.
- Good linearity.
- Spectrally matched to silicon sensors.

APPLICATIONS

- Light Source for Electro optical switches.
- Paper Tape and Punch Card Readers.
- Optical encoders.
- Photochoppers, Isolator.
- High speed Optoelectronic Data Links.

ABSOLUTE MAXIMUM RATINGS

| | | | |
|--|-----------|-------------|------------------|
| Maximum Power Dissipation ($T_a=25^\circ\text{C}$) | P | 100 | mW |
| Maximum Forward Current ($T_a=25^\circ\text{C}$) | I_F | 50 | mA |
| Maximum Reverse Voltage ($T_a=25^\circ\text{C}$) | V_R | 5.0 | V |
| Maximum Temperatures | | | |
| Junction Temperature | T_j | 100 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -40 to +100 | $^\circ\text{C}$ |

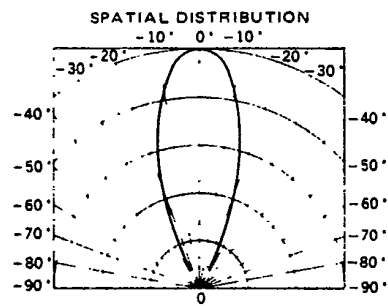
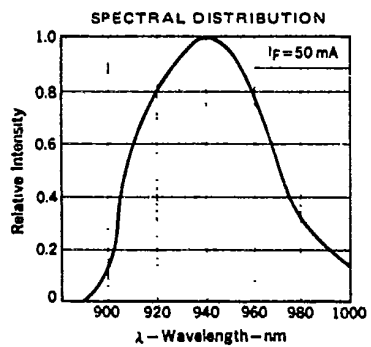
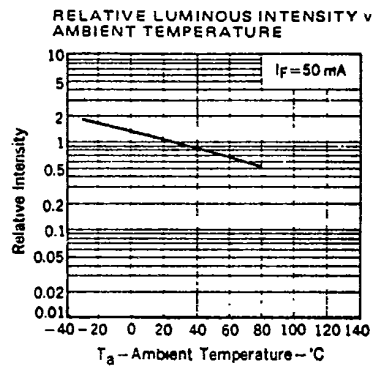
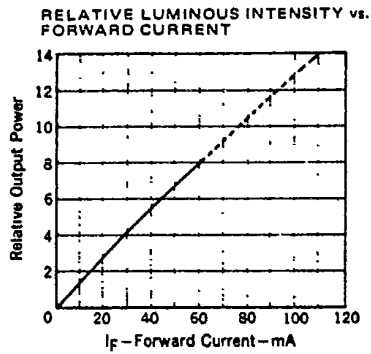
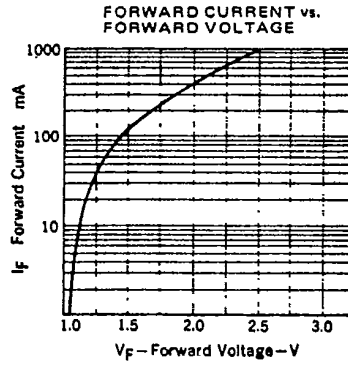
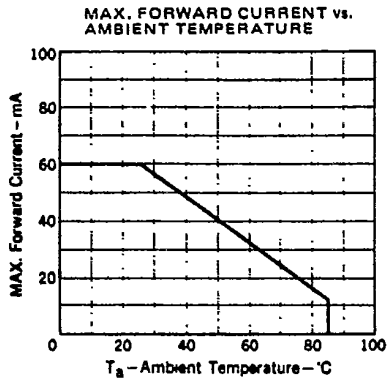
ELECTRO-OPTICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|----------------------------|-------------------|------|------|------|---------------|--------------------|
| Forward Voltage | V_F | | 1.1 | 1.4 | V | $I_F=50\text{ mA}$ |
| Reverse Current | I_R | | 0.01 | 5 | μA | $V_R=5\text{ V}$ |
| Peak Emission Wavelength | λ_{peak} | | 940 | | nm | $I_F=50\text{ mA}$ |
| Spectral Line Half Width | $\Delta\lambda$ | | 60 | | nm | $I_F=50\text{ mA}$ |
| Output Power | I_e | 6 | 11 | | mW/sr | $I_F=50\text{ mA}$ |
| Light Turn-On and Turn-Off | t_{on}, t_{off} | | 1 | | μs | |

SE310

T-41-11

TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)



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