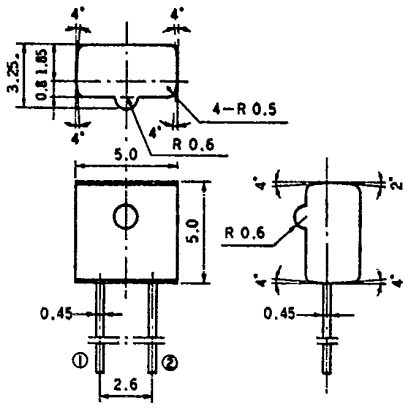
# LIGHT EMITTING DIODE
# SE306

## GaAs INFRARED EMITTNG DIODE

**PACKAGE DIMENSIONS**
in millimeters







① Cathode
② Anode

The SE306 is a GaAs(Gallium Arsenide) Infrared LED in a plastic molded package, and very suitable for a detecter of a photo interrupter. On forward bias, it emits a spectrally narrow band of radiation peaking at 940 nm.

**ABSOLUTE MAXIMUM RATINGS ($T_a$ = 25 °C)**

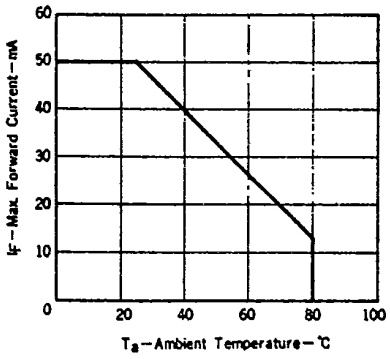
| | | | |
|---|---|---|---|
| Power Dissipation | $P_D$ | 100 | mW |
| Forward Current | $I_F$ | 50 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Junction Temperature | $T_j$ | 100 | °C |
| Storage Temperature | $T_{stg}$ | −40 to +100 | °C |

**ELECTRICAL CHARACTERISTICS ($T_a$ = 25 °C)**

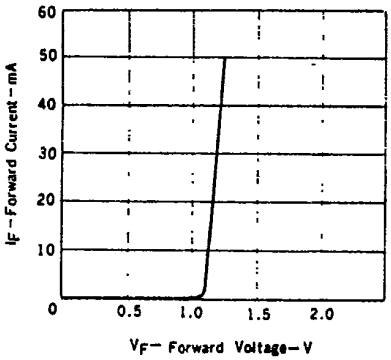
| CHARACTERISTIC | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | | 1.1 | 1.4 | V | $I_F$ = 10 mA |
| Reverse Current | $I_R$ | | | 10 | μA | $V_R$ = 5 V |
| Capacitance | $C_t$ | | 100 | | pF | V = 0, f = 1.0 MHz |
| Peak Emission Wavelength | λpeak | | 940 | | nm | $I_F$ = 10 mA |
| Spectral Line Half Width | Δλ | | 60 | | nm | $I_F$ = 10 mA |
| Output Power | $I_e$ | 0.2 | 0.5 | | mW/sr | $I_F$ = 10 mA |

## TYPICAL CHARACTERISTICS ($T_a$ = 25 °C)

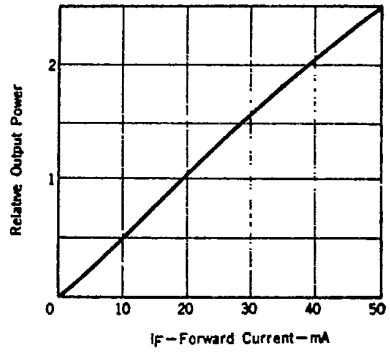
MAX. FORWARD CURRENT vs. AMBIENT TEMPERATURE



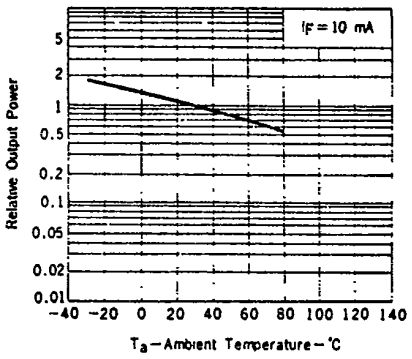

FORWARD CURRENT vs. FORWARD VOLTAGE




RELATIVE OUTPUT POWER vs. FORWARD CURRENT




RELATIVE OUTPUT POWER vs. AMBIENT TEMPERATURE




SPECTRAL DISTRIBUTION

