

CL - 205

The CL - 205 is a high - power GaAlAs IRED, with precision optical designed lens. It emits parallel infrared lights.

FEATURES

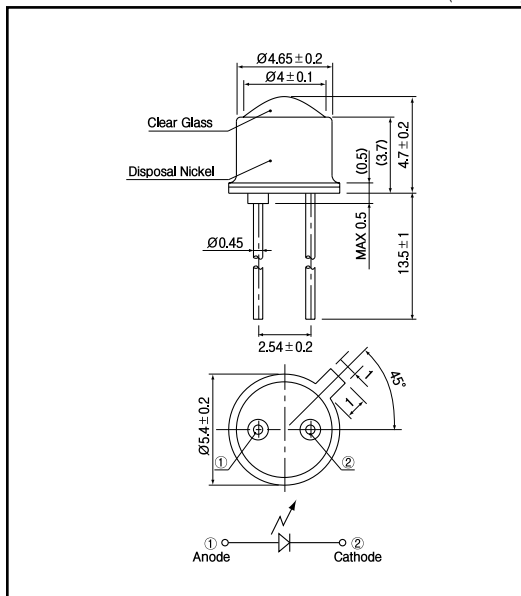
- TO - 18 can type with glass lense
- Peak emission wavelength $\lambda = 880\text{nm}$
- Illuminant for the parallel light
- High reliability

APPLICATIONS

- Encoders

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25 °C)

| Item | Symbol | Rating | Unit |
|-------------------------------------|------------|------------|------|
| Reverse voltage | V_R | 3 | V |
| Forward current | I_F | 80 | mA |
| Power dissipation | P_D | 160 | mW |
| Pulse forward current ^{*1} | I_{FP} | 0.8 | A |
| Operating temp. | $T_{opr.}$ | - 30 + 100 | |
| Storage temp. | $T_{stg.}$ | - 40 + 125 | |
| Soldering temp. ^{*2} | $T_{sol.}$ | 260 | |

*1. pulse width : $t_w \leq 100 \mu\text{sec}$, period : $T = 10\text{msec}$.

*2. For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 °C)

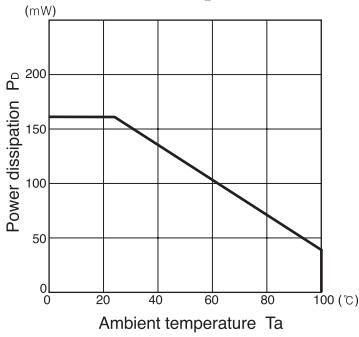
| Item | Symbol | Conditions | Min. | Typ. | Max. | Unit. |
|---------------------------------|-------------|---------------------|------|------|---------|---------------|
| Forward voltage | V_F | $I_F = 50\text{mA}$ | | 1.5 | 2.0 | V |
| Reverse current | I_R | $V_R = 3\text{V}$ | | | 10 | μA |
| Peak emission wavelength | λ_p | $I_F = 50\text{mA}$ | | 870 | | nm |
| Spectral bandwidth | | $I_F = 50\text{mA}$ | | 50 | | nm |
| Radiant intensity ^{*3} | P_D | $I_F = 50\text{mA}$ | | 10 | | mW |
| Half angle | | | | | ± 9 | deg. |

*3. Measured by tester of KODENSHI CORP.

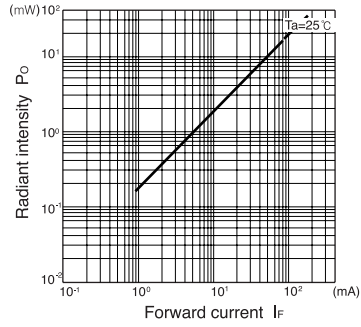
Infrared Emitting Diodes(GaAlAs)

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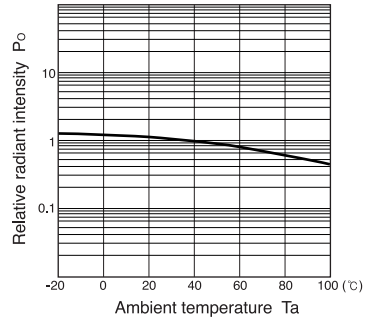
Power dissipation Vs. Ambient temperature



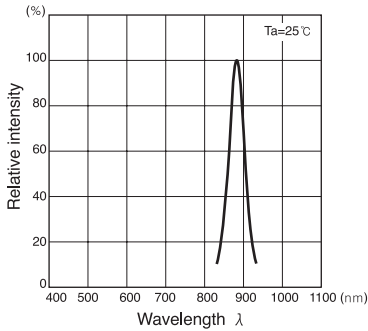
Radiant intensity Vs. Forward current



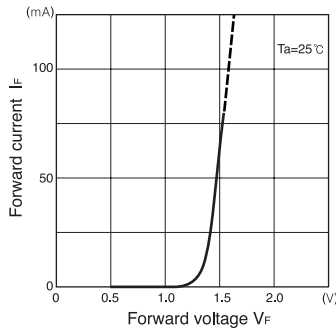
Relative radiant intensity Vs. Ambient temperature



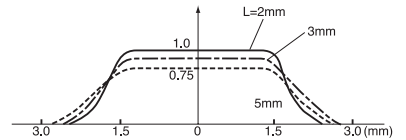
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



RADIATION PATTERN



Relative radiant intensity Vs. Distance

