

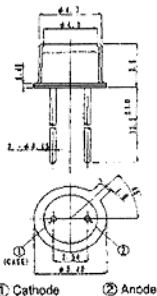
| Radiation | Type | Technology | Case |
|-----------|---------------|---------------|-------|
| Infrared | ELD-880-045-1 | AlGaAs/AlGaAs | TO-46 |

Description

High-power, high-speed, double heterostructure with removed substrate, in TO-52 housing

Applications

Optical communications, safety equipment

**Maximum Ratings**

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

| Parameter | Test conditions | Symbol | Value | Unit |
|-----------------------------|--|-----------|-------------|--------------------|
| Forward current (DC) | | I_F | 100 | mA |
| Peak forward current | $(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$ | I_{FM} | 200 | mA |
| Surge forward current | $(t_p \leq 10 \mu\text{s})$ | I_{FSM} | 2000 | mA |
| Reverse voltage | $I_R = 100 \mu\text{A}$ | V_R | 5 | V |
| Operating temperature range | | T_{amb} | -20 to +85 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | -30 to +100 | $^{\circ}\text{C}$ |

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

| Parameter | Test conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------|------------------------|-----------------------|-----|-----|-----|-------|
| Forward voltage | $I_F = 100 \text{ mA}$ | V_F | | 1.6 | 2.1 | V |
| Radiant power | $I_F = 100 \text{ mA}$ | Φ_e | 15 | 20 | | mW |
| Radiant intensity | $I_F = 100 \text{ mA}$ | I_o | | 11 | | mW/sr |
| Peak wavelength | $I_F = 100 \text{ mA}$ | λ_p | | 880 | | nm |
| Spectral bandwidth at 50% | $I_F = 100 \text{ mA}$ | $\Delta\lambda_{0.5}$ | | 45 | | nm |
| Viewing angle | | ϕ | | 40 | | deg. |
| Switching time | $I_F = 100 \text{ mA}$ | t_r, t_f | | 40 | | ns |