

| Radiation | Type | Technology | Case |
|-----------|------------|---------------|--------------------------|
| Infrared | 20 degrees | AlGaAs/AlGaAs | plastic lens, metal case |

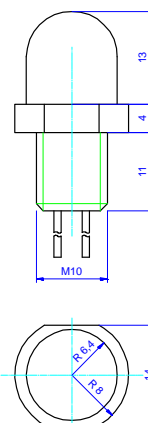
Description

High-power infrared-LED module, double-hetero AlGaAs structure, six chips are soldered on metal header, fast switching time

Applications

Illumination for CCD-cameras, remote control and optical communications, traffic signals, measurement systems

Outline: H=13 mm (± 0,5)



Absolute Maximum Ratings

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

| Parameter | Test conditions | Symbol | Value | Unit |
|-----------------------------|---|-----------|------------|--------------------|
| DC forward current | on heat sink | I_F | 250 | mA |
| Peak forward current | $t_p \leq 10 \mu\text{s}$, $f \leq 500 \text{ Hz}$ | I_{FM} | 2000 | mA |
| Reverse voltage* | $I_R = 10 \mu\text{A}$ | V_R | 20 | V |
| Power dissipation | on heat sink ($S \geq 50 \text{ cm}^2$) | P | 3 | W |
| Operating temperature range | | T_{amb} | -60 to +85 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | -60 to +85 | $^{\circ}\text{C}$ |
| Junction temperature | | T_j | 100 | $^{\circ}\text{C}$ |

*Always protect the LED source against reverse currents

Optical and Electrical Characteristics

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

| Parameter | Test conditions | Symbol | Min | Typ | Max | Unit |
|----------------------------------|------------------------|-----------------------|-----|------|-----|------|
| Forward voltage | $I_F = 100 \text{ mA}$ | V_F | | 10.5 | | V |
| Forward voltage | $I_F = 250 \text{ mA}$ | V_F | | 13 | | V |
| Radiant power | $I_F = 250 \text{ mA}$ | Φ_e | | 225 | | mW |
| Radiant intensity | $I_F = 250 \text{ mA}$ | I_e | | 1.2 | | W/sr |
| Peak wavelength | $I_F = 250 \text{ mA}$ | λ_p | 790 | 810 | 830 | nm |
| Spectral bandwidth at 50% | $I_F = 250 \text{ mA}$ | $\Delta\lambda_{0.5}$ | | 30 | | nm |
| Viewing angle | $I_F = 250 \text{ mA}$ | φ | | 20 | | deg |
| Switching time | $I_F = 250 \text{ mA}$ | t_r, t_f | | 150 | | ns |
| Thermal resistance junction-case | | R_{thJC} | | 10 | | K/W |

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