

| Radiation | Type | Technology    | Case              |
|-----------|------|---------------|-------------------|
| Infrared  | DDH  | AlGaAs/AlGaAs | 5 mm plastic lens |

|  |                                                                                                                                                                                                                                                                                                                           |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>Description</b></p> <p>High-power, high-speed infrared LED in standard 5 mm package, with lens for narrow beam focusing, housing with standoff leads</p> <p>Note: Special packages without standoff available on request</p> <p><b>Applications</b></p> <p>Optical communications, safety equipment, automation</p> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Maximum Ratings

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

| Parameter                   | Test conditions                          | Symbol    | Value       | Unit               |
|-----------------------------|------------------------------------------|-----------|-------------|--------------------|
| Forward current (DC)        |                                          | $I_F$     | 150         | mA                 |
| Peak forward current        | $(t_p \leq 50 \mu\text{s}, t_p/T = 1/2)$ | $I_{FM}$  | 200         | mA                 |
| Power dissipation           |                                          | $P_D$     | 200         | mW                 |
| Operating temperature range |                                          | $T_{amb}$ | -20 to +80  | $^{\circ}\text{C}$ |
| Storage temperature range   |                                          | $T_{stg}$ | -40 to +100 | $^{\circ}\text{C}$ |
| Lead soldering temperature  | $t < 5\text{s}$ , 3 mm from case         | $T_{sld}$ | 260         | $^{\circ}\text{C}$ |
| Junction temperature        |                                          | $T_J$     | 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           | $I_F = 20 \text{ mA}$  | $V_F$                 |     | 1,4   | 1,8 | V     |
| Forward voltage           | $I_F = 100 \text{ mA}$ | $V_F$                 |     | 1,6   | 2,0 | V     |
| Reverse voltage           | $I_R = 10 \mu\text{A}$ | $V_R$                 | 5   |       |     | V     |
| Radiant power             | $I_F = 20 \text{ mA}$  | $\Phi_e$              | 7   | 11    |     | mW    |
| Radiant power*            | $I_F = 100 \text{ mA}$ | $\Phi_e$              |     | 45    |     | mW    |
| Radiant intensity*        | $I_F = 100 \text{ mA}$ | $I_e$                 | 150 | 220   |     | mW/sr |
| Peak wavelength           | $I_F = 100 \text{ mA}$ | $\lambda_p$           | 865 | 880   | 895 | nm    |
| Spectral bandwidth at 50% | $I_F = 100 \text{ mA}$ | $\Delta\lambda_{0.5}$ |     | 50    |     | nm    |
| Viewing angle             | $I_F = 100 \text{ mA}$ | $\varphi$             |     | 20    |     | deg.  |
| Switching time            | $I_F = 100 \text{ mA}$ | $t_r, t_f$            |     | 10/20 |     | ns    |

\*measured after 30s current flow

Note: All measurements carried out on *EPIGAP* equipment

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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