

**Phototransistor****18°****CSR68541PDK**

- \* 4.8mm Phototransistor with separate Base for general purpose
- \* Mountable in row with 5mm distance
- \* **Small Response Angle of typ. 18 degree**
- \* Daylight filtered black housing optimized for LED with 855nm - 870nm
- \* Mechanical matched with CQR65 LED-serie
- \* SMT-Version CSS68541PDK mountable in row with 5mm distance
- \* Current Gain selected

**Optical and Electrical Characteristics @Tambient =25°C**

| Symbol           | Parameter                            | MIN  | Typ   | MAX  | UNIT            | Test conditions                            |
|------------------|--------------------------------------|------|-------|------|-----------------|--|
| $I_{Light}$      | Collector Light Current              | 7,5  | 9,8   |      | $\mu A$         | $E_e = 0,5mW/cm^2 @940nm ; V_r=10V$        |
| $I_{CEO}$        | Collector Dark Current               |      |       | 70   | nA              | $E_e = 0 mW/cm^2 ; V_r=10V$                |
| $V_{(BR)CEO}$    | Collector Emitter Breakdown Voltage  | 30   |       |      | V               | $I_c = 100 \mu A ; I_b = 0$                |
| $V_{(BR)ECO}$    | Emitter Collector Breakdown Voltage  | 5    |       |      | V               | $I_e = 100 \mu A ; I_b = 0$                |
| $V_{CEsat}$      | Collector-Emitter Saturation Voltage |      | 0,3   |      | V               | $I_b = 100\mu A ; I_c = 2mA$               |
| $\lambda_{peak}$ | Wavelength of Peak Sensitivity       | 855  | 860   | 880  | nm              | max. sensitivity                           |
| $\lambda_{0,5}$  | Range of Spectral Bandwidth          | 700  |       | 1100 | nm              | $I = 10\%$ , typical                       |
| $t_f$            | Fall Time                            |      | 15    |      | $\mu S$         | $V_{ce} = 5V ; I_c = 1mA ; R_L = 1K\Omega$ |
| $t_r$            | Rise Time                            |      | 15    |      | $\mu S$         | $V_{ce} = 5V ; I_c = 1mA ; R_L = 1K\Omega$ |
| A                | Active Array                         |      | 0,145 |      | mm <sup>2</sup> |  |
| $\beta$          | Current Gain                         | 1000 |       | 1800 |                 | $V_{ce} = 5 V ; I_c = 2mA$                 |
| $2\Phi_{0,5}$    | Full Response Angle                  |      | 18    |      | deg.            | $\Phi E = 50\%$                            |
| $T_{Operating}$  | Operating Temperature                | -30  |       | 85   | °C              |  |
| $T_{Storage}$    | Storage Temperature                  | -30  |       | 100  | °C              |  |
| $T_{Soldering}$  | Soldering Temperature                |      |       | 260  | °C              | Iron Soldering; 5mm from case @ max 5 sec. |
| $R_{thJA}$       | Thermal Resistance                   |      | 450   |      | K/W             |  |
| $P_{tot}$        | Total Power Dissipation              |      |       | 50   | mW              | $T_{amb} 25^\circ C$                       |

**Order informations:**

CSR68541PDK

CSR68541PDK-TC

CSR68541PDK-TR

Bulk (1000 pcs/Bag)

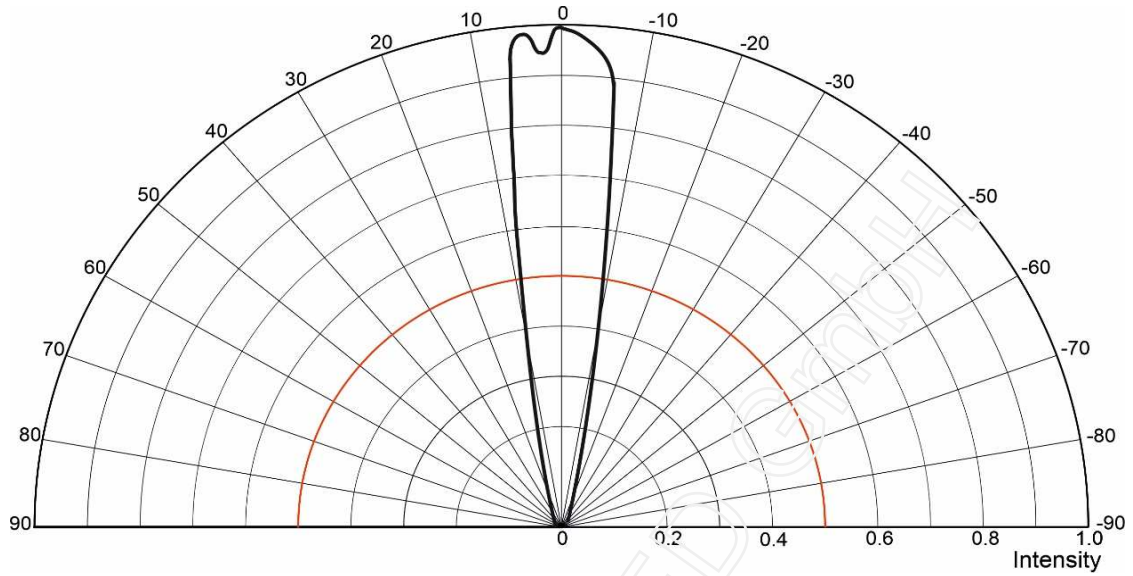
Bended according to customer specifications (on request)

Tape &amp; Reel (1000 pcs./Reel) on request

CSR68541PDK

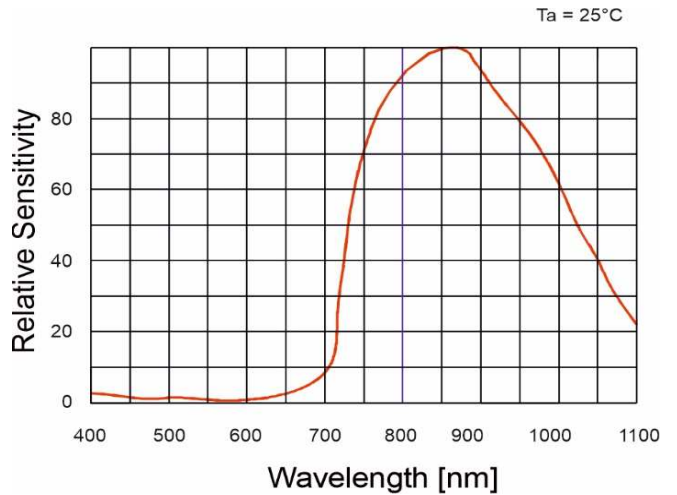
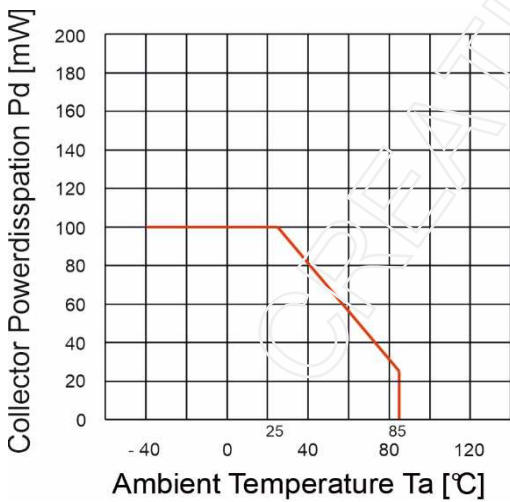
Relative Radiation Sensitivity

@ T<sub>ambient</sub> = 25°C



Collector Powerdissipation vs. Ambient Temperature

Relative Sensitivity vs. Wavelength

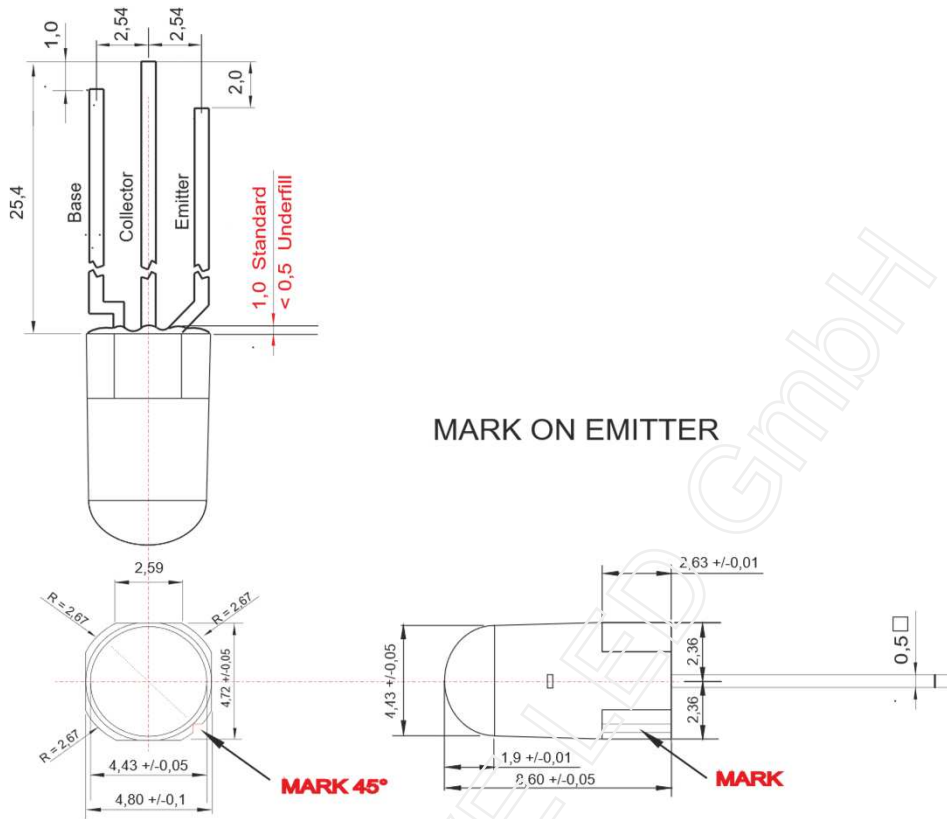


Pls. Contact us for more technical detail information !

CREATIVE LED GMBH reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact us for latest device specification sheets before using.

CSR68541PDK

Mechanical Drawing



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