

LC Mini TOPLED® RG Low Current LED

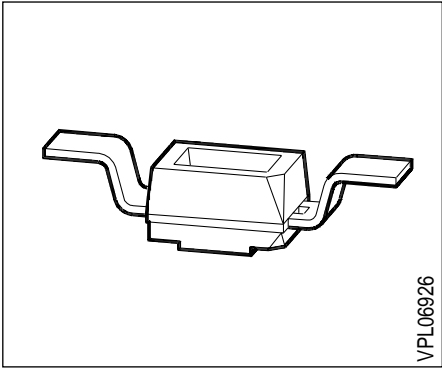
LS M779, LY M779, LG M779

Besondere Merkmale

- Gehäusefarbe: weiß
- als optischer Indikator einsetzbar
- zur Hinterleuchtung, Lichtleiter- und Linseneinkopplung
- für alle SMT-Bestück- und Löttechniken geeignet
- gegurtet (12-mm-Filmgurt)

Features

- color of package: white
- for use as optical indicator
- for backlighting, optical coupling into light pipes and lenses
- suitable for all SMT assembly and soldering methods
- available taped on reel (12 mm tape)



| Typ | Emissions- farbe | Farbe der Lichtaustritts- fläche | Lichtstärke | Lichtstrom | Bestellnummer |
|--------------------------|----------------------|--|--|--|------------------------------|
| Type | Color of Emission | Color of the Light Emitting Area | Luminous Intensity $I_F = 2 \text{ mA}$ $I_V(\text{mcd})$ | Luminous Flux $I_F = 2 \text{ mA}$ $\Phi_V(\text{mlm})$ | Ordering Code |
| LS M779-CF LS M779-DG | super-red | colorless clear | 0.25 ... 0.5 0.40 ... 0.8 | 3.0 typ. | Q62703-Q3740 Q62703-Q3744 |
| LY M779-CF LY M779-DG | yellow | colorless clear | 0.25 ... 0.5 0.40 ... 0.8 | 3.0 typ. | Q62703-Q3945 Q62703-Q3946 |
| LG M779-CO | green | colorless clear | ≥ 0.25 (1.0 typ.) | 3.0 typ. | Q62703-Q3050 |

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V \max} / I_{V \min} \leq 2.0$.
Luminous intensity ratio in one packaging unit $I_{V \max} / I_{V \min} \leq 2.0$.

Grenzwerte Maximum Ratings

| Bezeichnung Parameter | Symbol Symbol | Werte Values | Einheit Unit |
|---|------------------|-----------------|-----------------|
| Betriebstemperatur Operating temperature range | T_{op} | – 55 ... + 100 | °C |
| Lagertemperatur Storage temperature range | T_{stg} | – 55 ... + 100 | °C |
| Sperrschichttemperatur Junction temperature | T_j | + 100 | °C |
| Durchlaßstrom Forward current | I_F | 7.5 | mA |
| Stoßstrom Surge current $t \leq 10 \mu s, D = 0.005$ | I_{FM} | 0.15 | A |
| Sperrspannung Reverse voltage | V_R | 5 | V |
| Verlustleistung Power dissipation | P_{tot} | 20 | mW |
| Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air Montage auf PC-Board*) (Padgröße $\geq 16 \text{ mm}^2$) mounted on PC board*) (pad size $\geq 16 \text{ mm}^2$) | $R_{th JA}$ | 530 | K/W |

*) PC-board: FR4

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

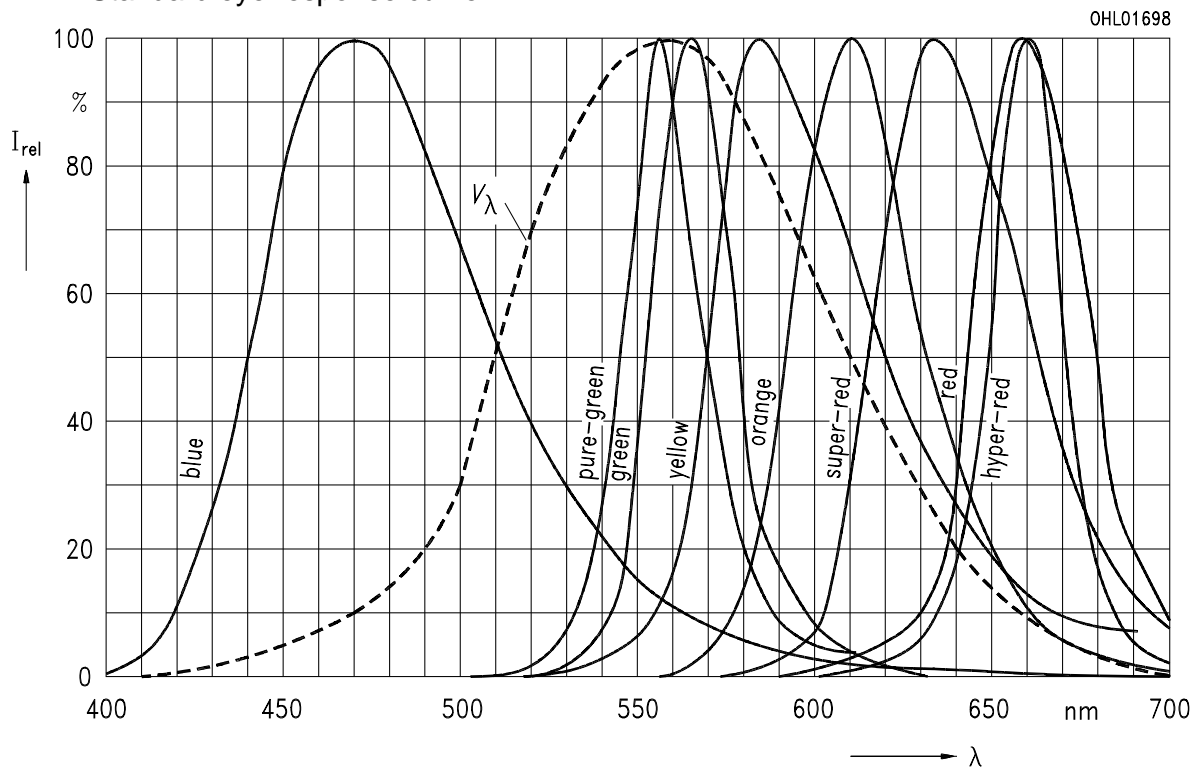
| Bezeichnung Parameter | Symbol Symbol | Werte Values | | | Einheit Unit |
|---|-------------------------|-----------------|------------|------------|--------------------------------|
| | | LS | LY | LG | |
| Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 7.5\text{ mA}$ | λ_{peak} | 635 | 586 | 565 | nm |
| Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 7.5\text{ mA}$ | λ_{dom} | 628 | 590 | 570 | nm |
| Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$ (typ.) Spectral bandwidth at 50 % $I_{\text{rel max}}$ (typ.) $I_F = 7.5\text{ mA}$ | $\Delta\lambda$ | 45 | 45 | 25 | nm |
| Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V | 2ϕ | 120 | 120 | 120 | Grad deg. |
| Durchlaßspannung (typ.) Forward voltage (max.) $I_F = 2\text{ mA}$ | V_F V_F | 1.8 2.6 | 2.0 2.7 | 1.9 2.6 | V V |
| Sperrstrom (typ.) Reverse current (max.) $V_R = 5\text{ V}$ | I_R I_R | 0.01 10 | 0.01 10 | 0.01 10 | μA μA |
| Kapazität (typ.) Capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_0 | 3 | 3 | 15 | pF |
| Schaltzeiten: Switching times: I_V from 10 % to 90 % (typ.) I_V from 90 % to 10 % (typ.) $I_F = 100\text{ mA}, t_p = 10\text{ }\mu\text{s}, R_L = 50\text{ }\Omega$ | t_r t_f | 200 150 | 200 150 | 450 200 | ns ns |

Relative spektrale Emission $I_{\text{rel}} = f(\lambda)$, $T_A = 25^\circ\text{C}$, $I_F = 7.5\text{ mA}$

Relative spectral emission

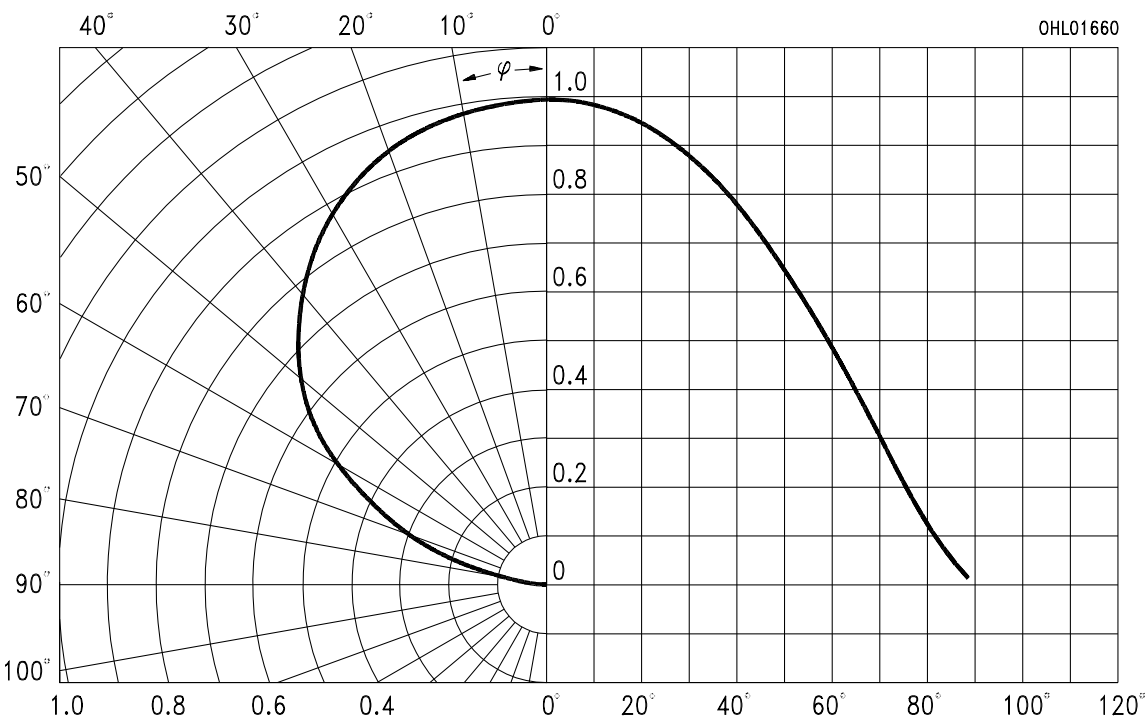
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



Abstrahlcharakteristik $I_{\text{rel}} = f(\varphi)$

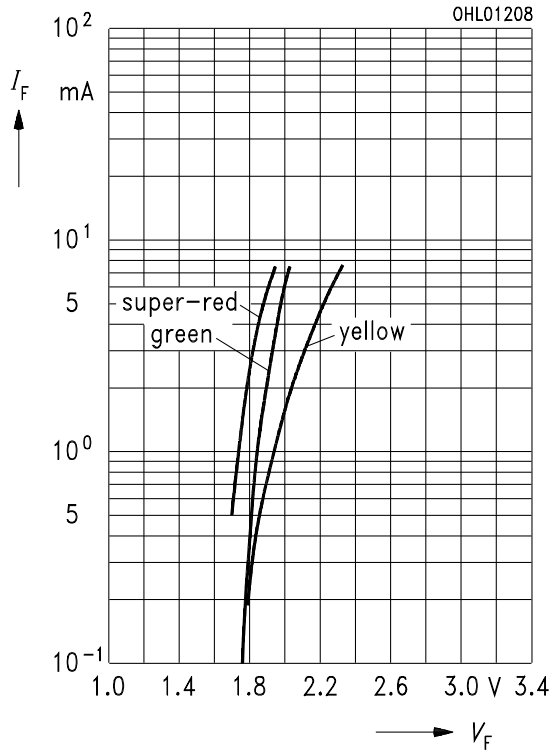
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

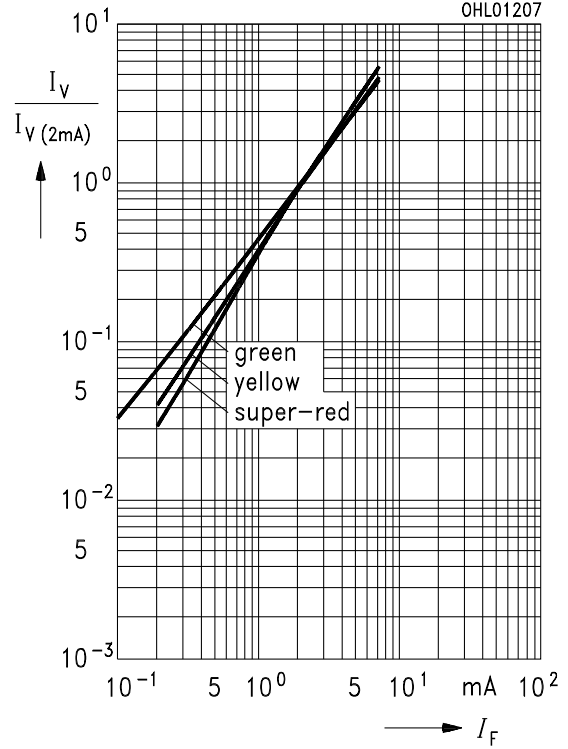
$T_A = 25^\circ\text{C}$



Relative Lichtstärke $I_V / I_{V(2\text{ mA})} = f(I_F)$

Relative luminous intensity

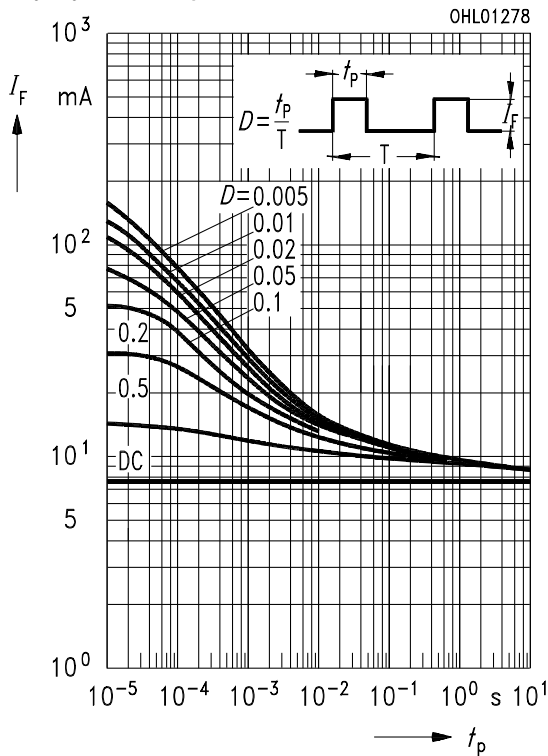
$T_A = 25^\circ\text{C}$



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

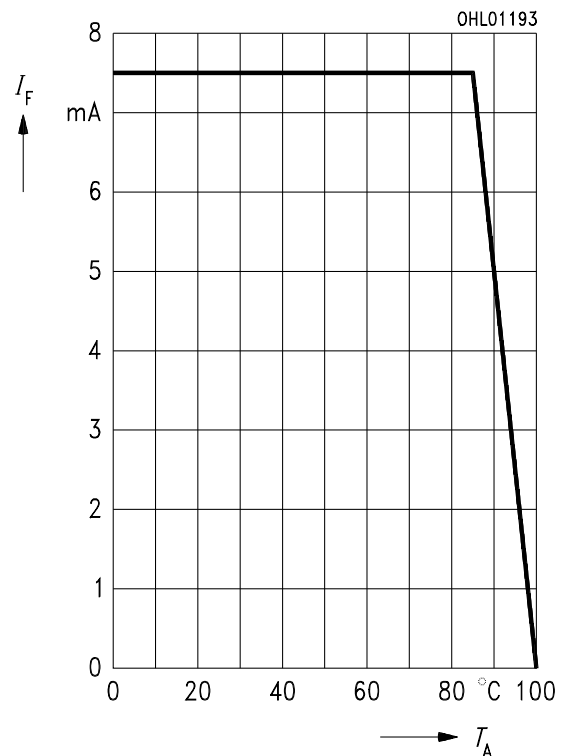
Permissible pulse handling capability

Duty cycle $D = \text{parameter}$, $T_A = 25^\circ\text{C}$



Maximal zulässiger Durchlaßstrom $I_F = f(T_A)$

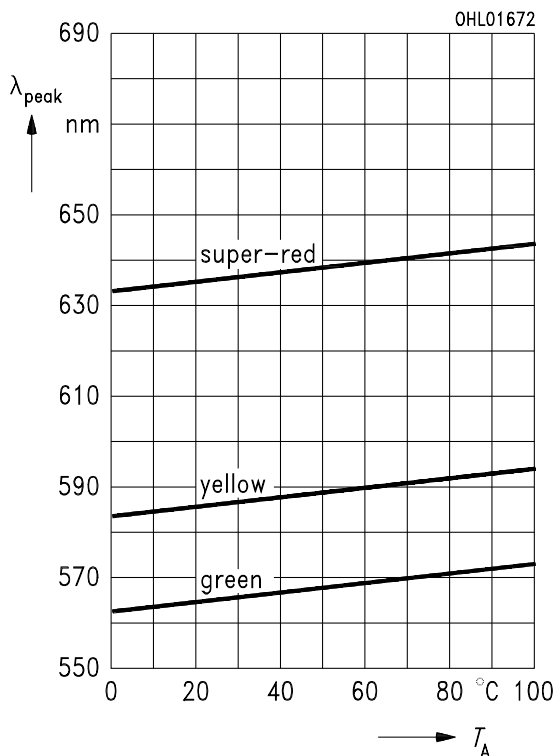
Max. permissible forward current



Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$

Wavelength at peak emission

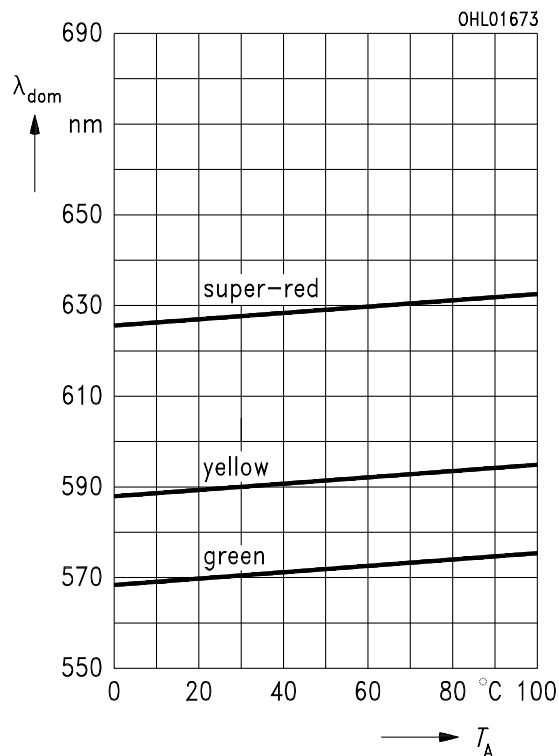
$I_F = 7.5 \text{ mA}$



Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$

Dominant wavelength

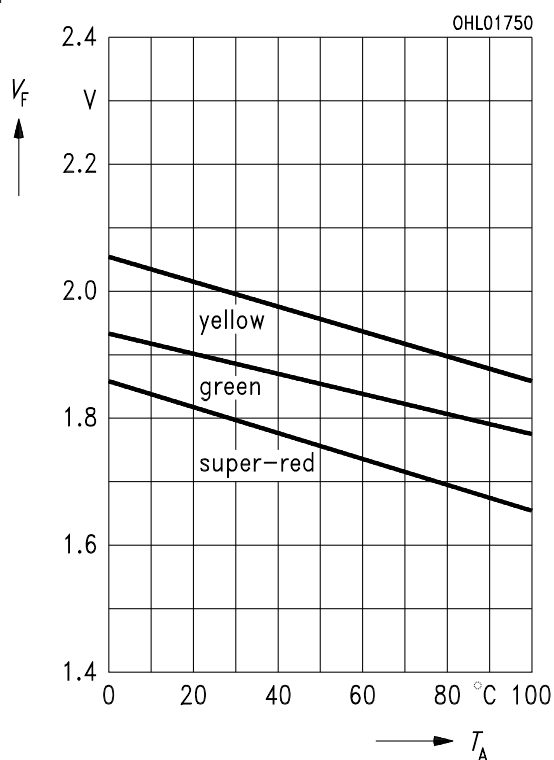
$I_F = 7.5 \text{ mA}$



Durchlaßspannung $V_F = f(T_A)$

Forward voltage

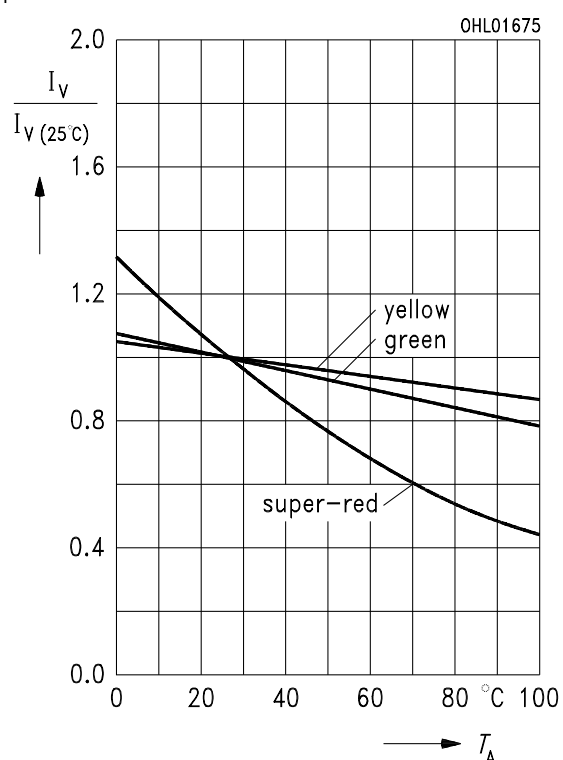
$I_F = 2 \text{ mA}$



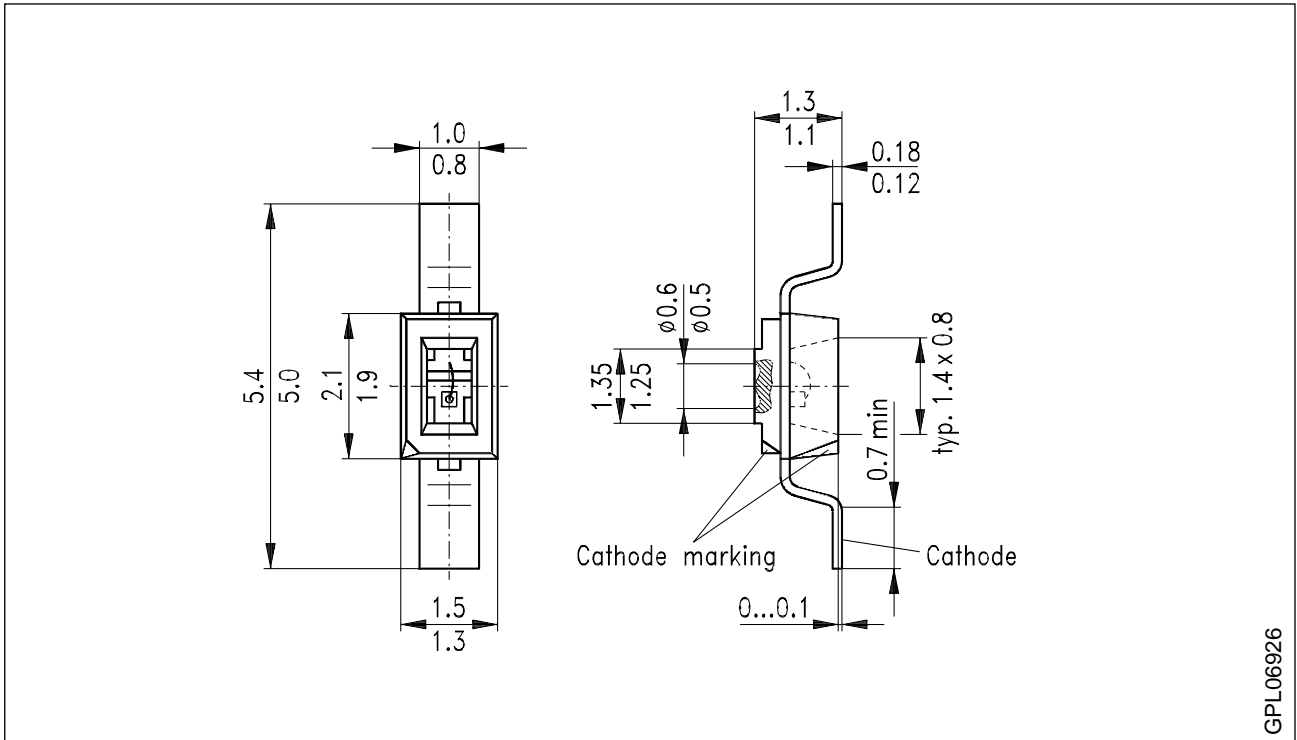
Relative Lichtstärke $I_V / I_{V(25^\circ\text{C})} = f(T_A)$

Relative luminous intensity

$I_F = 2 \text{ mA}$



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)
Package Outlines (Dimensions in mm, unless otherwise specified)



GPL06926

Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge