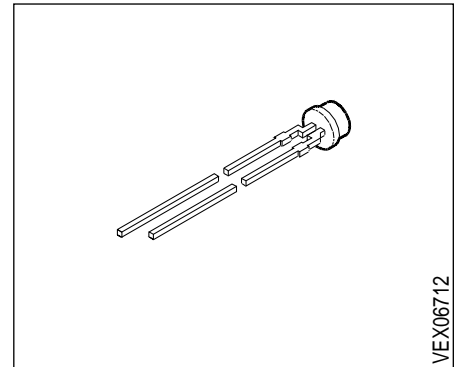


## Super ARGUS® LED High-Current, 3 mm (T1) LED, Non Diffused

LS K382, LO K382, LY K382  
LG K382, LP K382

### Besondere Merkmale

- eingefärbtes, klares Gehäuse
  - Kunststoffgehäuse mit spezieller Formgebung
  - besonders geeignet bei hohem Umfeldlicht durch erhöhten Betriebsstrom (typ. 50 mA)
  - bei Einsatz eines äußeren Reflektors zur Hintergrundbeleuchtung von Leuchtfeldern und LCD-Anzeigen geeignet
  - gleichmäßige Ausleuchtung einer Streuscheibe (Weißdruck) vor dem äußeren Reflektor
  - Lötspieße mit Aufsetzebene
  - gegurtet lieferbar
  - Störimpulsfest nach DIN 40839
- **Hinweis:** Bei farbigen Streuscheiben muß die spektrale Transmission an die von der LED emittierte Wellenlänge angepaßt werden.



### Features

- colored, clear package
  - plastic package with a special design
  - appropriate for high ambient light because of the higher operating current (typ. 50 mA)
  - in connection with an additional, custom built reflector suitable for backlighting of display panels
  - uniform illumination of a diffuser screen in front of the custom built reflector
  - solder leads with stand-off
  - available taped on reel
  - load dump resistant acc. to DIN 40839
- **Note:** If the diffuser screen is tinted, the spectral transmission must be adjusted to the wavelength emitted by the LED.

| Typ<br>Type  | Emissionsfarbe<br>Color of<br>Emission | Gehäusefarbe<br>Color of<br>Package | Lichtstrom<br>Luminous Flux<br>$I_F = 50 \text{ mA}$<br>$\Phi_V \text{ (mlm)}$ | Bestellnummer<br>Ordering Code   |
|--|--|-------------------------------------|--|--|
| <ul style="list-style-type: none"> <li>■ LS K382-QT</li> <li>■ LS K382-R</li> <li>■ LS K382-S</li> <li>■ LS K382-RU</li> </ul> | super-red                              | red clear                           | 63 ... 500<br>100 ... 200<br>160 ... 320<br>100 ... 800                        | Q62703-Q2633<br>Q62703-Q2634<br>Q62703-Q2635<br>Q62703-Q1956                 |
| <ul style="list-style-type: none"> <li>■ LO K382-QT</li> <li>■ LO K382-R</li> <li>■ LO K382-S</li> <li>■ LO K382-RU</li> </ul> | orange                                 | orange clear                        | 63 ... 500<br>100 ... 200<br>160 ... 320<br>100 ... 800                        | Q62703-Q2636<br>Q62703-Q2637<br>Q62703-Q2638<br>Q62703-Q1957                 |
| <ul style="list-style-type: none"> <li>■ LY K382-QT</li> <li>■ LY K382-R</li> <li>■ LY K382-S</li> <li>■ LY K382-RU</li> </ul> | yellow                                 | yellow clear                        | 63 ... 500<br>100 ... 200<br>160 ... 320<br>100 ... 800                        | Q62703-Q2639<br>Q62703-Q2640<br>Q62703-Q2641<br>Q62703-Q1958                 |
| LG K382-QT<br>LG K382-R<br>LG K382-S<br>LG K382-T<br>LG K382-RU  | green                                  | green clear                         | 63 ... 500<br>100 ... 200<br>160 ... 320<br>250 ... 500<br>100 ... 800         | Q62703-Q2642<br>Q62703-Q2643<br>Q62703-Q2644<br>Q62703-Q2645<br>Q62703-Q1959 |
| LP K382-NR<br>LP K382-P<br>LP K382-Q<br>LP K382-R<br>LP K382-PS  | pure green                             | colorless clear                     | 25 ... 200<br>40 ... 80<br>63 ... 125<br>100 ... 200<br>40 ... 320             | Q62703-Q2646<br>Q62703-Q2339<br>Q62703-Q2338<br>Q62703-Q2337<br>Q62703-Q2123 |

■ Not for new design / Nicht für Neuentwicklungen

Streuung des Lichtstromes in einer Verpackungseinheit  $\Phi_{V \max} / \Phi_{V \min} \leq 2.0$ .

Luminous flux ratio in one packaging unit  $\Phi_{V \max} / \Phi_{V \min} \leq 2.0$ .

**Grenzwerte**  
**Maximum Ratings**

| Bezeichnung<br>Parameter   | Symbol<br>Symbol | Werte<br>Values   | Einheit<br>Unit |
|--|------------------|-------------------|-----------------|
| Betriebstemperatur<br>Operating temperature range                              | $T_{op}$         | - 55 ... + 100    | °C              |
| Lagertemperatur<br>Storage temperature range                                   | $T_{stg}$        | - 55 ... + 100    | °C              |
| Sperrschichttemperatur<br>Junction temperature                                 | $T_j$            | + 100             | °C              |
| Durchlaßstrom<br>Forward current   | $I_F$            | 75                | mA              |
| Stoßstrom<br>Surge current<br>$t \leq 10 \mu s, D = 0.005$                     | $I_{FM}$         | 1                 | A               |
| Sperrspannung<br>Reverse voltage   | $V_R$            | 5                 | V               |
| Verlustleistung<br>Power dissipation<br>$T_A \leq 25 \text{ °C}$               | $P_{tot}$        | 240               | mW              |
| Wärmewiderstand<br>Thermal resistance<br>Sperrschicht / Luft<br>Junction / air | $R_{th JA}$      | 250 <sup>1)</sup> | K/W             |

<sup>1)</sup> Montiert auf Platine mit min. Anschlußlänge (bis Aufsatzebene, Lötfläche  $\geq 16 \text{ mm}^2$ ).

<sup>1)</sup> Mounted on PC board with min. lead length (up to stand-off, pad size  $\geq 16 \text{ mm}^2$ ).

## Kennwerte ( $T_A = 25\text{ °C}$ ) Characteristics

| Bezeichnung<br>Parameter  | Symbol<br>Symbol        | Werte<br>Values |            |            |            |              | Einheit<br>Unit                |
|---|-------------------------|-----------------|------------|------------|------------|--------------|--------------------------------|
|   |                         | LS              | LO         | LY         | LG         | LP           |                                |
| Wellenlänge des emittierten Lichtes (typ.)<br>Wavelength at peak emission (typ.)<br>$I_F = 20\text{ mA}$  | $\lambda_{\text{peak}}$ | 635             | 610        | 586        | 565        | 557          | nm                             |
| Dominantwellenlänge (typ.)<br>Dominant wavelength (typ.)<br>$I_F = 20\text{ mA}$  | $\lambda_{\text{dom}}$  | 628             | 605        | 590        | 570        | 560          | nm                             |
| Spektrale Bandbreite bei 50 % $\Phi_{\text{rel max}}$ (typ.)<br>Spectral bandwidth at 50 % $\Phi_{\text{rel max}}$ (typ.)<br>$I_F = 20\text{ mA}$                                   | $\Delta\lambda$         | 45              | 40         | 45         | 25         | 22           | nm                             |
| Durchlaßspannung (typ.)<br>Forward voltage (max.)<br>$I_F = 50\text{ mA}$   | $V_F$<br>$V_F$          | 2.0<br>3.8      | 2.4<br>3.8 | 2.4<br>3.8 | 2.6<br>3.8 | 2.6<br>3.8*) | V<br>V                         |
| Sperrstrom (typ.)<br>Reverse current (max.)<br>$V_R = 5\text{ V}$   | $I_R$<br>$I_R$          | 0.01<br>10      | 0.01<br>10 | 0.01<br>10 | 0.01<br>10 | 0.01<br>10   | $\mu\text{A}$<br>$\mu\text{A}$ |
| Kapazität (typ.)<br>Capacitance<br>$V_R = 0\text{ V}, f = 1\text{ MHz}$   | $C_O$                   | 55              | 40         | 30         | 55         | 80           | pF                             |
| Schaltzeiten:<br>Switching times:<br>$I_V$ from 10 % to 90 % (typ.)<br>$I_V$ from 90 % to 10 % (typ.)<br>$I_F = 100\text{ mA}, t_p = 10\text{ }\mu\text{s}, R_L = 50\text{ }\Omega$ | $t_r$<br>$t_f$          | –<br>–          | –<br>–     | –<br>–     | –<br>–     | –<br>–       | ns<br>ns                       |

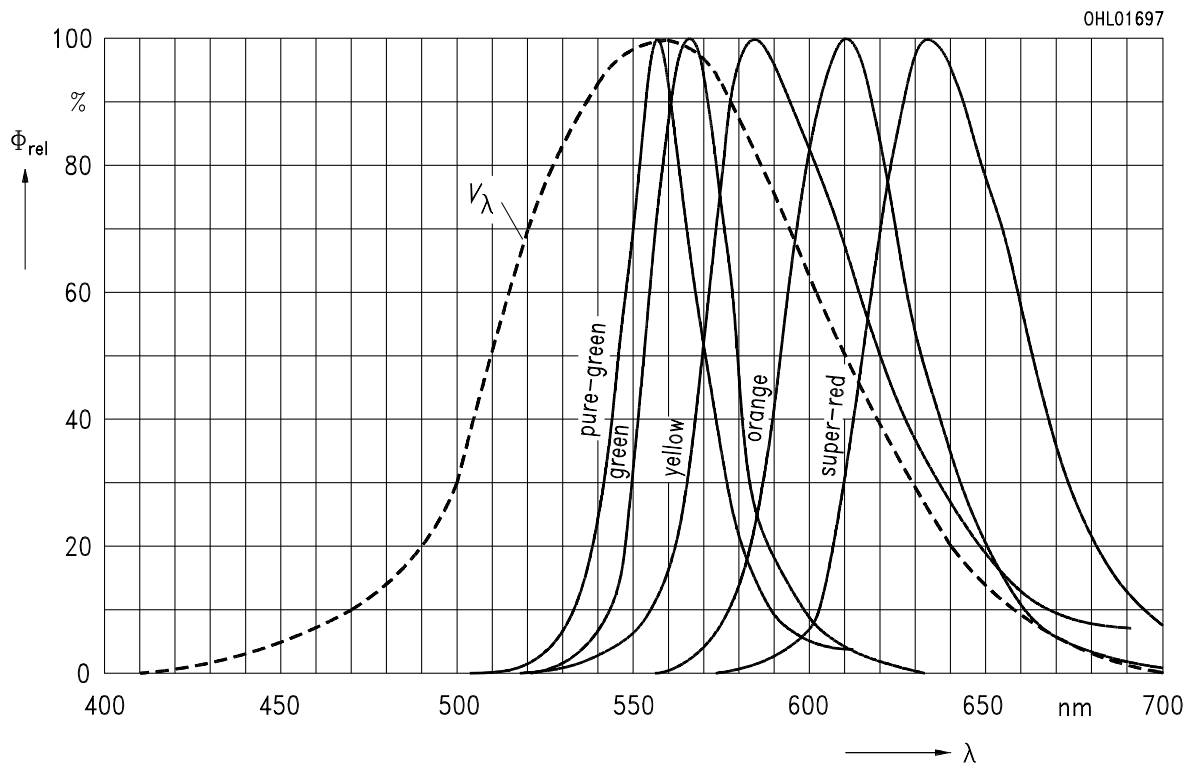
\*)  $V_F \text{ max} = 3.2\text{ V}$  as of Febr. 97

Relative spektrale Emission  $\Phi_{rel} = f(\lambda)$ ,  $T_A = 25^\circ\text{C}$ ,  $I_F = 20\text{ mA}$

Relative spectral emission

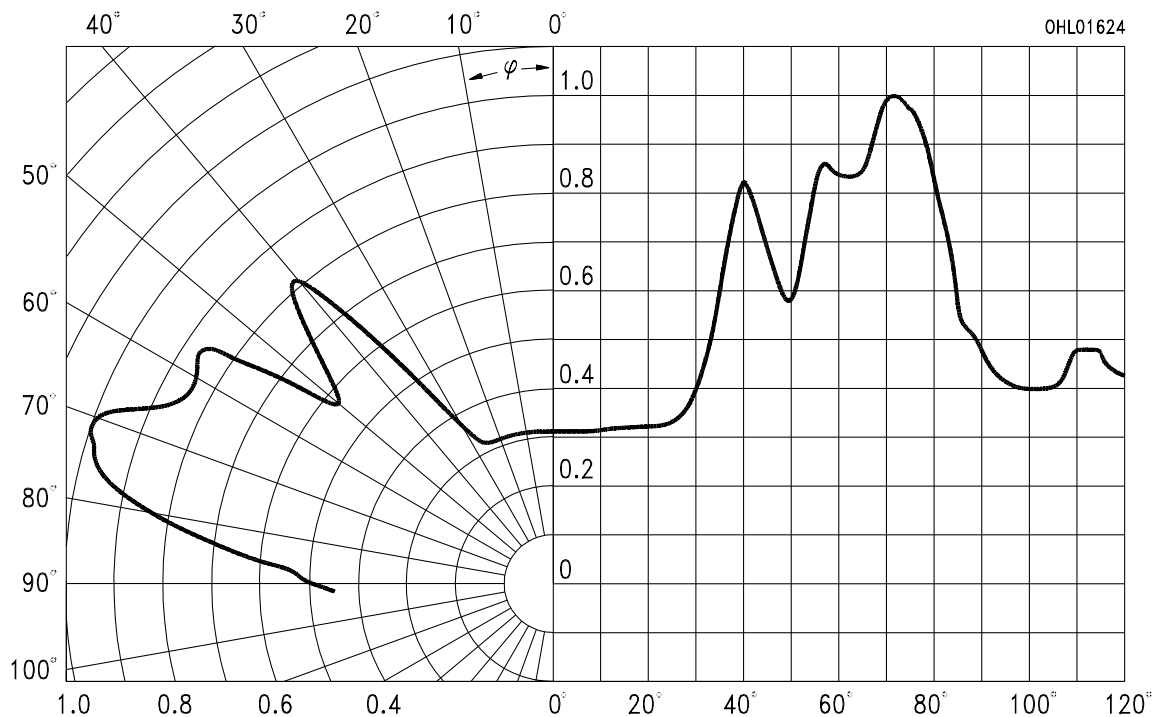
$V(\lambda)$  = spektrale Augenempfindlichkeit

Standard eye response curve



Abstrahlcharakteristik  $\Phi_{rel} = f(\varphi)$

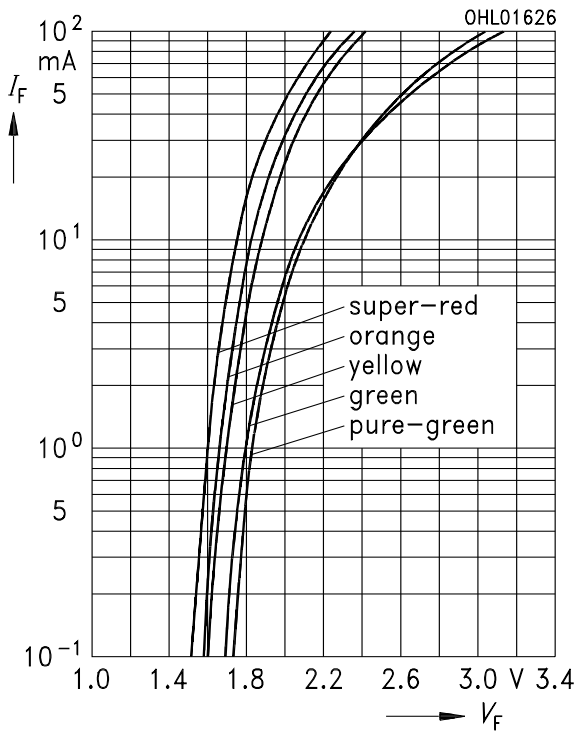
Radiation characteristic



### Durchlaßstrom $I_F = f(V_F)$

#### Forward current

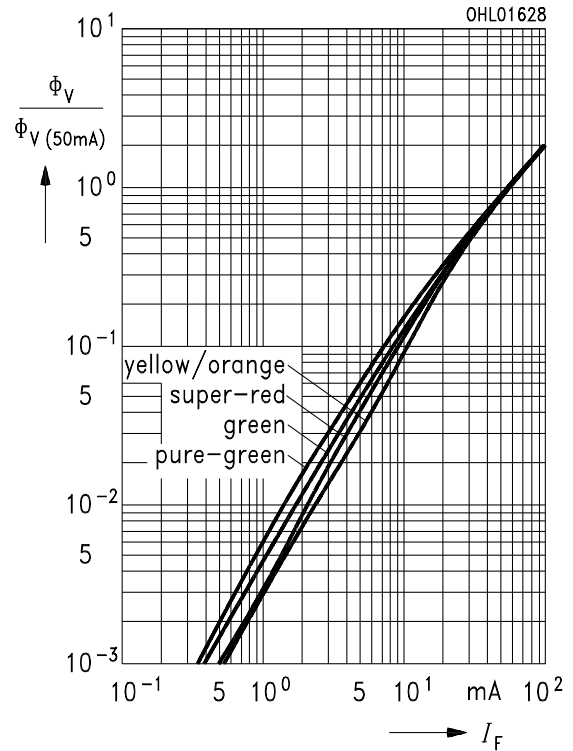
$T_A = 25^\circ\text{C}$



### Relativer Lichtstrom $\Phi_V / \Phi_{V(50\text{mA})} = f(I_F)$

#### Relative luminous flux

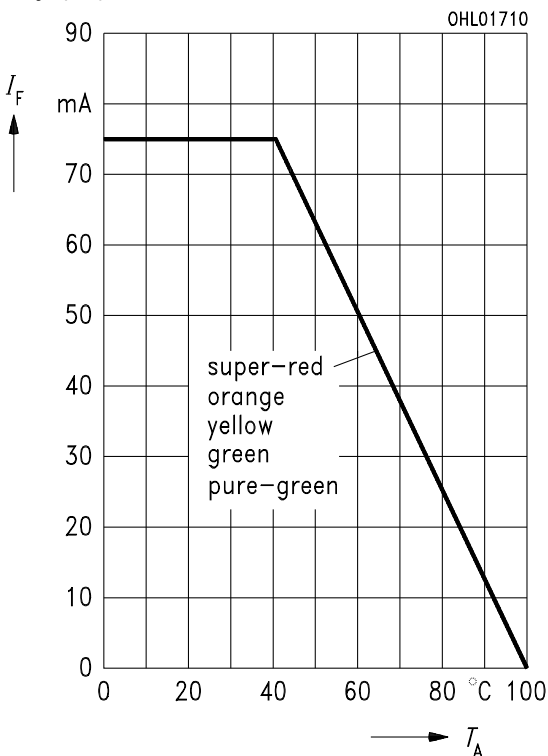
$T_A = 25^\circ\text{C}$



### Maximal zulässiger Durchlaßstrom

#### Max. permissible forward current

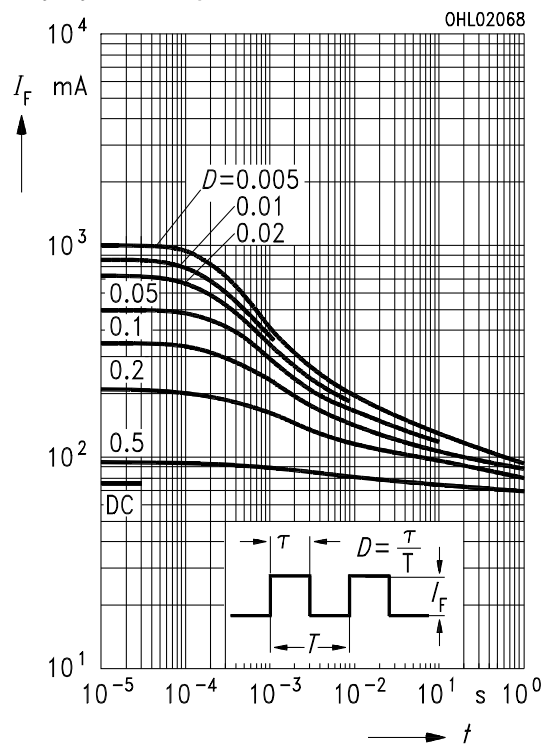
$I_F = f(T_A)$



### Zulässige Impulsbelastbarkeit $I_{F\Lambda} = f(t_p)$

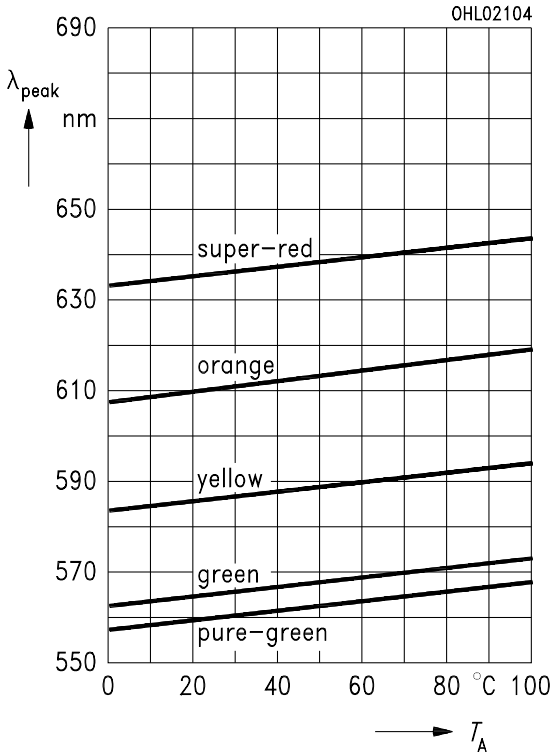
#### Permissible pulse handling capability

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



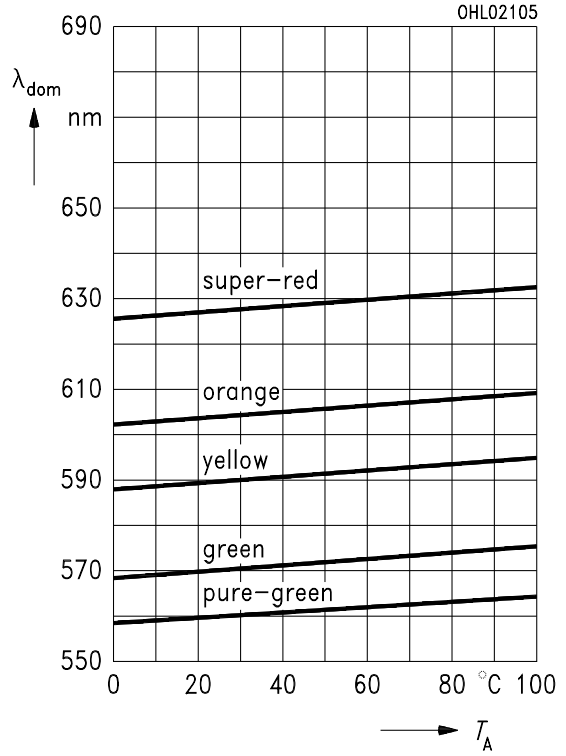
**Wellenlänge der Strahlung  $\lambda_{\text{peak}} = f(T_A)$**   
**Wavelength at peak emission**

$I_F = 20 \text{ mA}$



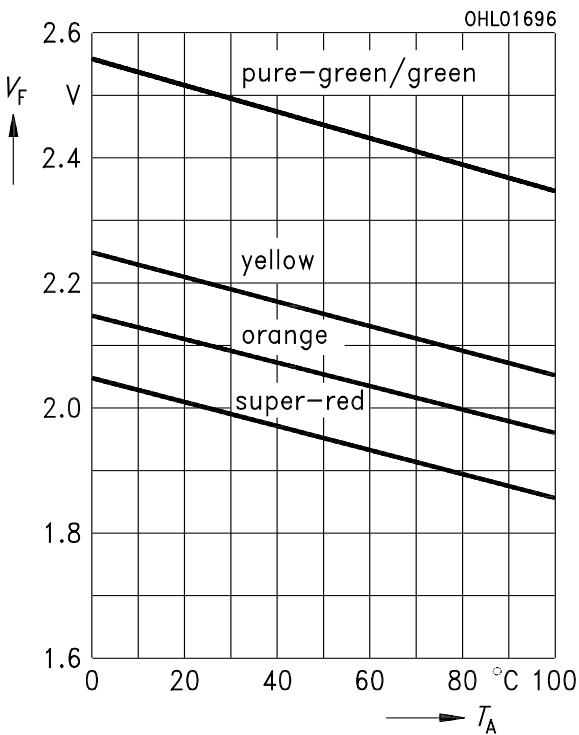
**Dominantwellenlänge  $\lambda_{\text{dom}} = f(T_A)$**   
**Dominant wavelength**

$I_F = 20 \text{ mA}$



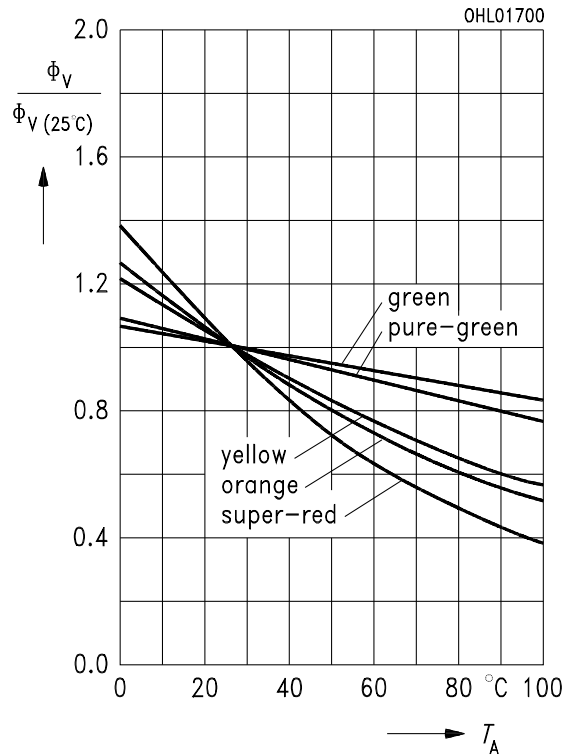
**Durchlaßspannung  $V_F = f(T_A)$**   
**Forward voltage**

$I_F = 50 \text{ mA}$

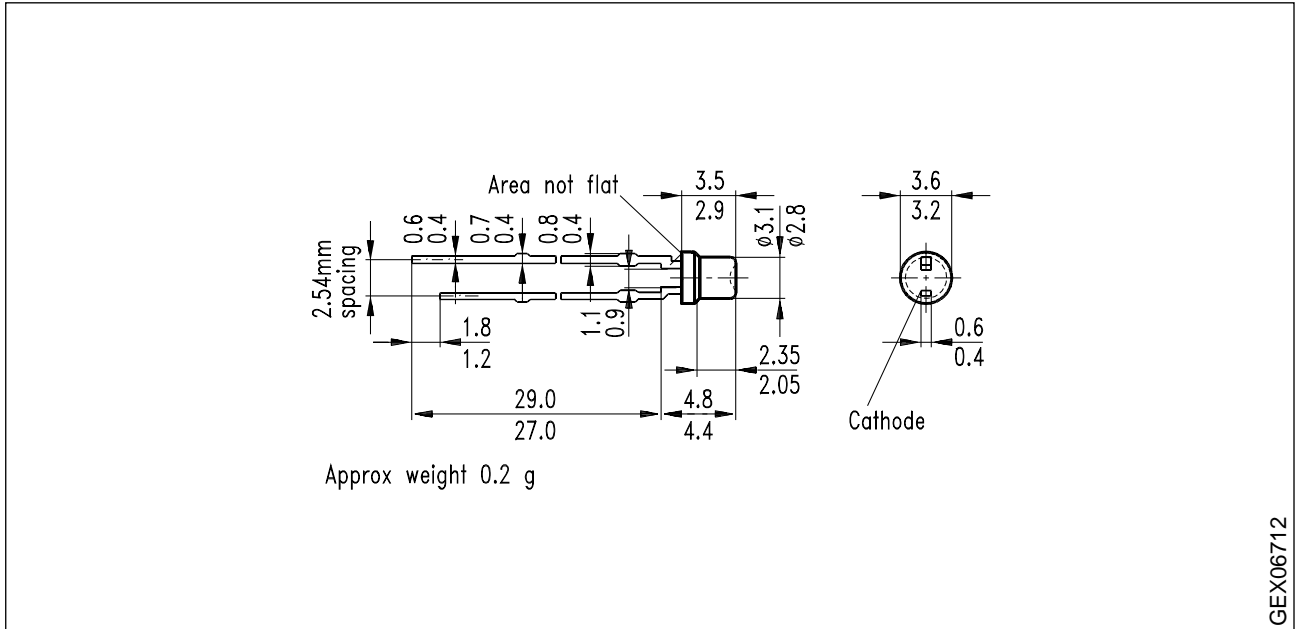


**Relativer Lichtstrom  $\Phi_V / \Phi_{V(25^\circ\text{C})} = f(T_A)$**   
**Relative luminous flux**

$I_F = 50 \text{ mA}$



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



GEX06712

**Kathodenkennzeichnung:** Kürzerer Lötspieß  
**Cathode mark:** Short solder lead



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