

# SIEMENS

3 mm (T1) LED, Non Diffused

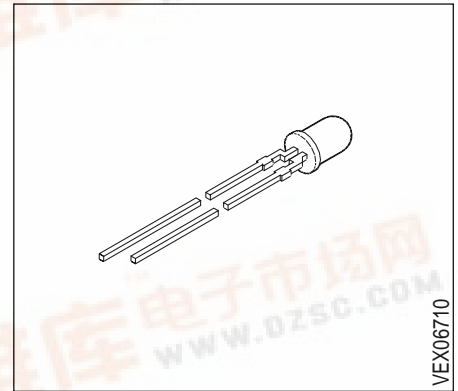
LS 3340, LO 3340, LY 3340  
LG 3330, LP 3340

## Besondere Merkmale

- eingefärbtes, klares Gehäuse
- zur Einkopplung in Lichtleiter
- als optischer Indikator einsetzbar
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

## Features

- colored, clear package
- optical coupling into light pipes
- for use as optical indicator
- solder leads with stand-off
- available taped on reel
- load dump resistant acc. to DIN 40839



VEX06710

| Typ<br>Type   | Emissionsfarbe<br>Color of<br>Emission | Gehäusefarbe<br>Color of<br>Package | Lichtstärke<br>Luminous<br>Intensity<br>$I_F = 10 \text{ mA}$<br>$I_V \text{ (mcd)}$ | Bestellnummer<br>Ordering Code   |
|---|--|-------------------------------------|--|--|
| LS 3340-KN<br>LS 3340-L<br>LS 3340-M<br>LS 3340-N<br>LS 3340-LP | super-red                              | red clear                           | 6.3 ... 50.0<br>10.0 ... 20.0<br>16.0 ... 32.0<br>25.0 ... 50.0<br>10.0 ... 80.0     | Q62703-Q1701<br>Q62703-Q1702<br>Q62703-Q1704<br>Q62703-Q2320<br>Q62703-Q3223 |
| LO 3340-KN<br>LO 3340-L<br>LO 3340-M<br>LO 3340-N<br>LO 3340-LP | orange                                 | orange clear                        | 6.3 ... 50.0<br>10.0 ... 20.0<br>16.0 ... 32.0<br>25.0 ... 50.0<br>10.0 ... 80.0     | Q62703-Q1886<br>Q62703-Q2256<br>Q62703-Q2255<br>Q62703-Q2473<br>Q62703-Q2628 |
| LY 3340-JM<br>LY 3340-L<br>LY 3340-M<br>LY 3340-N<br>LY 3340-LP | yellow                                 | yellow clear                        | 4.0 ... 32.0<br>10.0 ... 20.0<br>16.0 ... 32.0<br>25.0 ... 50.0<br>10.0 ... 80.0     | Q62703-Q1789<br>Q62703-Q1791<br>Q62703-Q1999<br>Q62703-Q2652<br>Q62703-Q1792 |
| LG 3330-KN<br>LG 3330-L<br>LG 3330-M<br>LG 3330-N<br>LG 3330-LP | green                                  | colorless clear                     | 6.3 ... 50.0<br>10.0 ... 20.0<br>16.0 ... 32.0<br>25.0 ... 50.0<br>10.0 ... 80.0     | Q62703-Q1698<br>Q62703-Q1699<br>Q62703-Q1700<br>Q62703-Q2010<br>Q62703-Q2011 |
| LP 3340-JL<br>LP 3340-K<br>LP 3340-L<br>LP 3340-KM              | pure green                             | green clear                         | 4.0 ... 20.0<br>6.3 ... 12.5<br>10.0 ... 20.0<br>6.3 ... 32.0                        | Q62703-Q2749<br>Q62703-Q2982<br>Q62703-Q2980<br>Q62703-Q3211                 |

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<br>Parameter   | Symbol<br>Symbol | Werte<br>Values |     | Einheit<br>Unit |
|--|------------------|-----------------|-----|-----------------|
|  |                  | LS, LO, LY, LG  | LP  |                 |
| 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   | $I_F$            | 40              | 30  | mA              |
| Stoßstrom<br>Surge current<br>$t \leq 10 \mu s, D = 0.005$                     | $I_{FM}$         | 0.5             |     | A               |
| Sperrspannung<br>Reverse voltage   | $V_R$            | 5               |     | V               |
| Verlustleistung<br>Power dissipation<br>$T_A \leq 25 \text{ °C}$               | $P_{tot}$        | 140             | 100 | mW              |
| Wärmewiderstand<br>Thermal resistance<br>Sperrschicht / Luft<br>Junction / air | $R_{th JA}$      | 400             |     | K/W             |

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

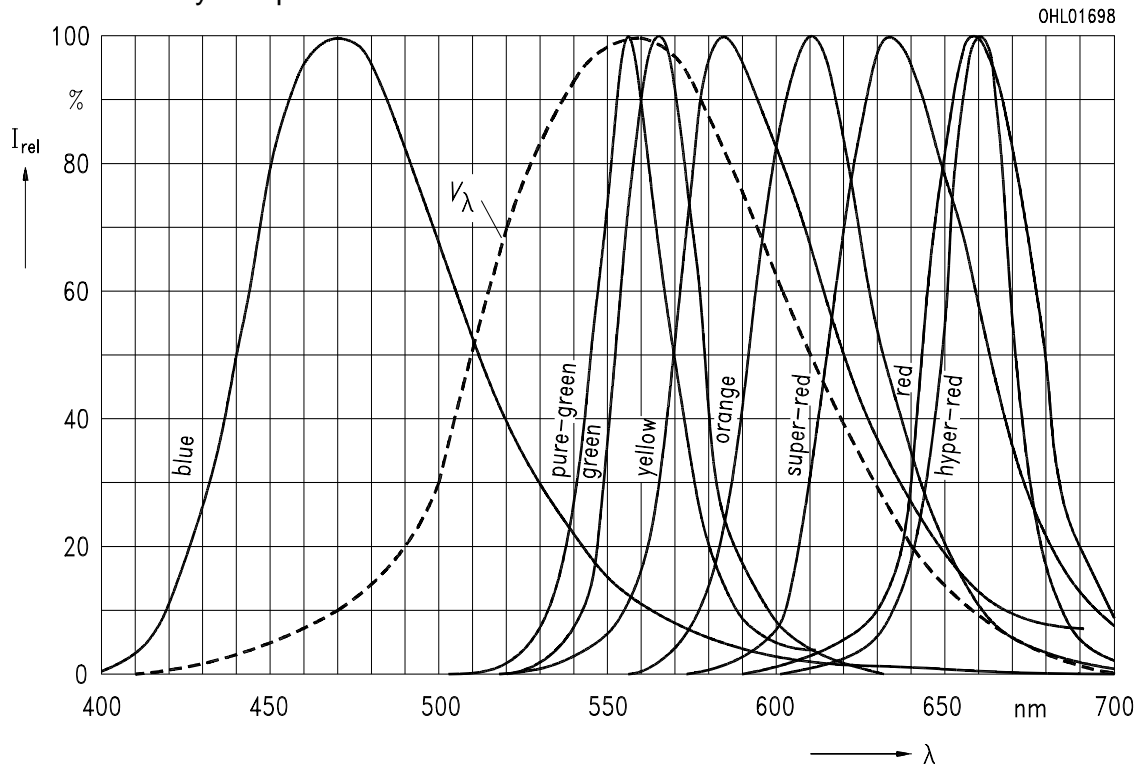
### Characteristics

| Bezeichnung<br>Parameter  | Symbol<br>Symbol                         | Werte<br>Values |            |            |            |            | Einheit<br>Unit                |
|---|--|-----------------|------------|------------|------------|------------|--------------------------------|
|   |  | LS              | LO         | LY         | LG         | LP         |                                |
| Wellenlänge des emittierten Lichtes<br>Wavelength at peak emission<br>$I_F = 20\text{ mA}$  | (typ.) $\lambda_{\text{peak}}$<br>(typ.) | 635             | 610        | 586        | 565        | 557        | nm                             |
| Dominantwellenlänge<br>Dominant wavelength<br>$I_F = 20\text{ mA}$  | (typ.) $\lambda_{\text{dom}}$<br>(typ.)  | 628             | 605        | 590        | 570        | 560        | nm                             |
| Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$<br>Spectral bandwidth at 50 % $I_{\text{rel max}}$<br>$I_F = 20\text{ mA}$   | (typ.) $\Delta\lambda$<br>(typ.)         | 45              | 40         | 45         | 25         | 22         | nm                             |
| Abstrahlwinkel bei 50 % $I_V$ (Vollwinkel)<br>Viewing angle at 50 % $I_V$   | $2\phi$                                  | 50              | 50         | 50         | 50         | 50         | Grad<br>deg.                   |
| Durchlaßspannung<br>Forward voltage<br>$I_F = 10\text{ mA}$   | (typ.) $V_F$<br>(max.) $V_F$             | 2.0<br>2.6      | 2.0<br>2.6 | 2.0<br>2.6 | 2.0<br>2.6 | 2.0<br>2.6 | V<br>V                         |
| Sperrstrom<br>Reverse current<br>$V_R = 5\text{ V}$   | (typ.) $I_R$<br>(max.) $I_R$             | 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<br>Capacitance<br>$V_R = 0\text{ V}, f = 1\text{ MHz}$  | (typ.) $C_0$                             | 12              | 8          | 10         | 15         | 15         | pF                             |
| Schaltzeiten:<br>Switching times:<br>$I_V$ from 10 % to 90 %<br>$I_V$ from 90 % to 10 %<br>$I_F = 100\text{ mA}, t_p = 10\text{ }\mu\text{s}, R_L = 50\text{ }\Omega$ | (typ.) $t_r$<br>(typ.) $t_f$             | 300<br>150      | 300<br>150 | 300<br>150 | 450<br>200 | 450<br>200 | ns<br>ns                       |

**Relative spektrale Emission**  $I_{rel} = f(\lambda)$ ,  $T_A = 25\text{ °C}$ ,  $I_F = 20\text{ mA}$

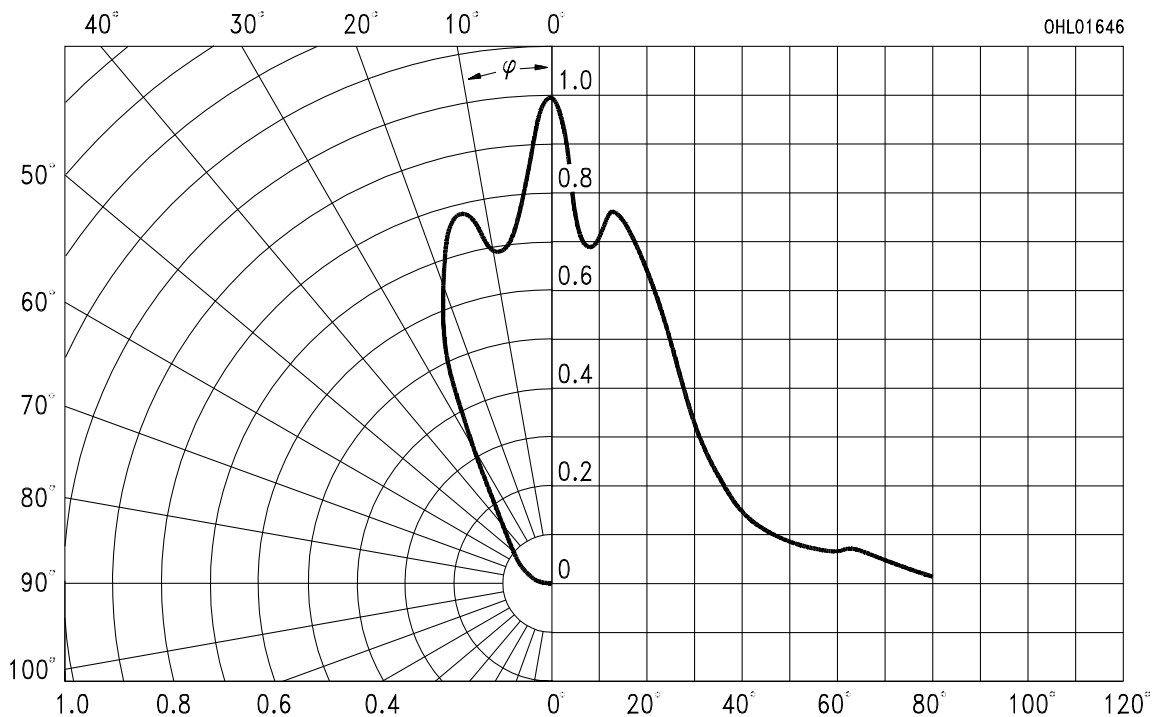
**Relative spectral emission**

$V(\lambda)$  = spektrale Augenempfindlichkeit  
 Standard eye response curve



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

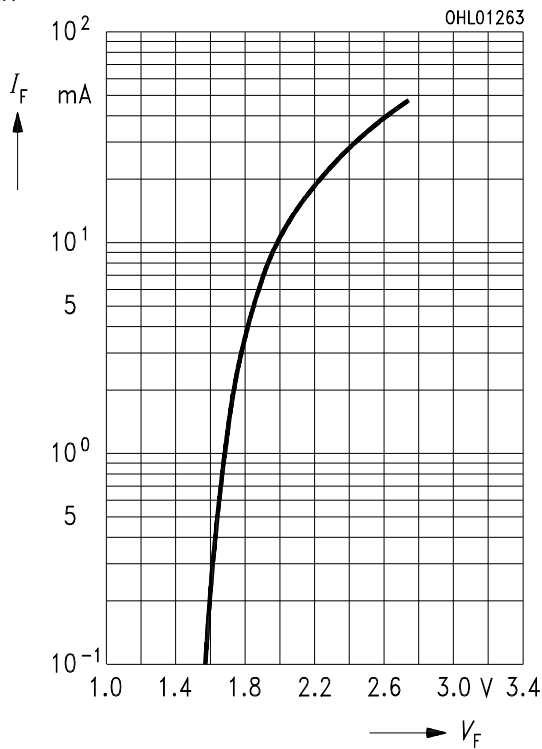
**Radiation characteristic**



### Durchlaßstrom $I_F = f(V_F)$

### Forward current

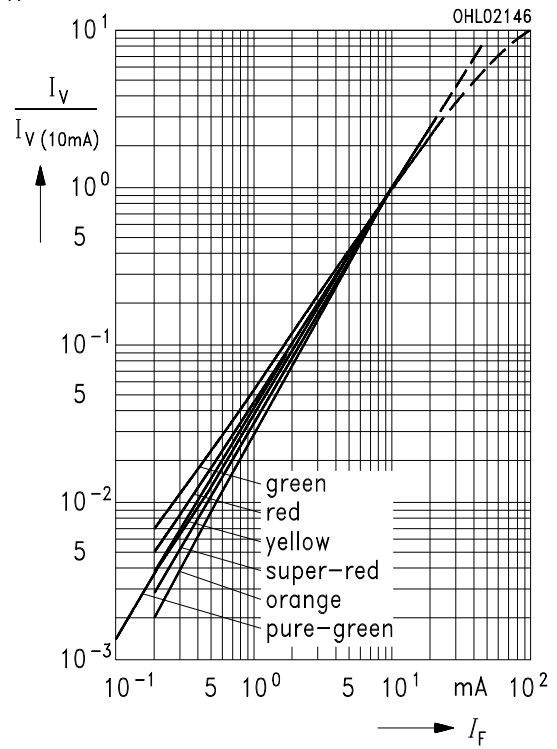
$T_A = 25\text{ °C}$



### Relative Lichtstärke $I_V/I_{V(10\text{ mA})} = f(I_F)$

### Relative luminous intensity

$T_A = 25\text{ °C}$

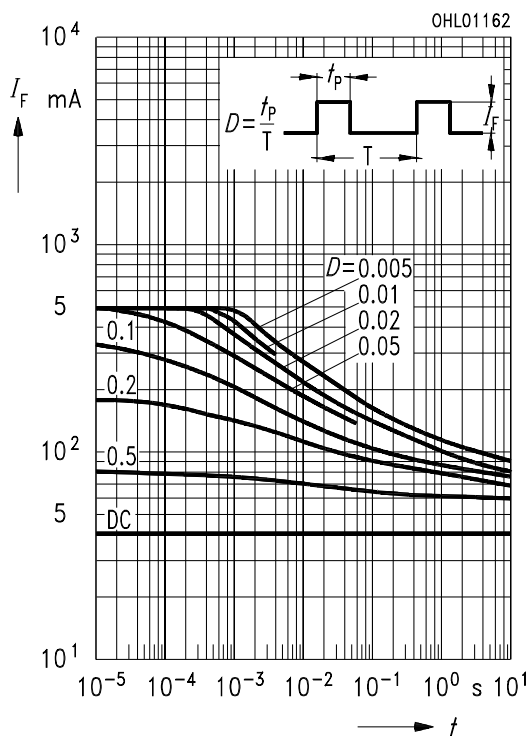


### Zulässige Impulsbelastbarkeit $I_F = f(t_P)$

### Permissible pulse handling capability

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

LS, LO, LY, LG

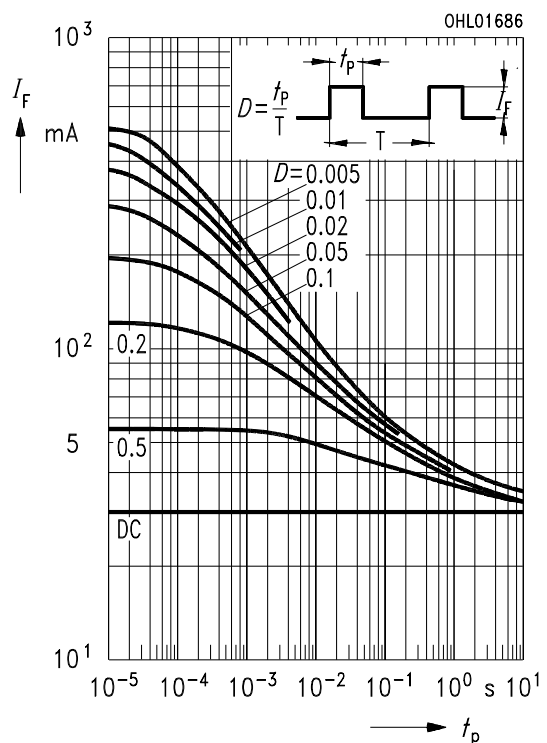


### Zulässige Impulsbelastbarkeit $I_F = f(t_P)$

### Permissible pulse handling capability

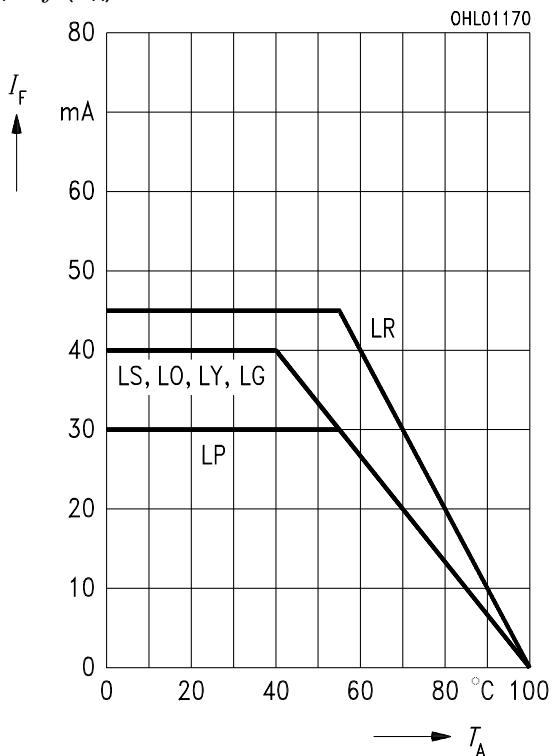
Duty cycle  $D =$  parameter,  $T_A = 25\text{ °C}$

LP



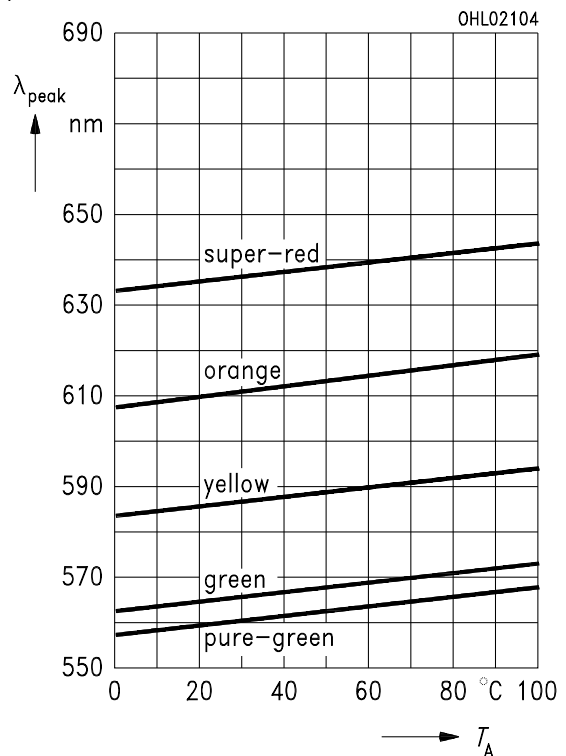
**Maximal zulässiger Durchlaßstrom**  
**Max. permissible forward current**

$I_F = f(T_A)$



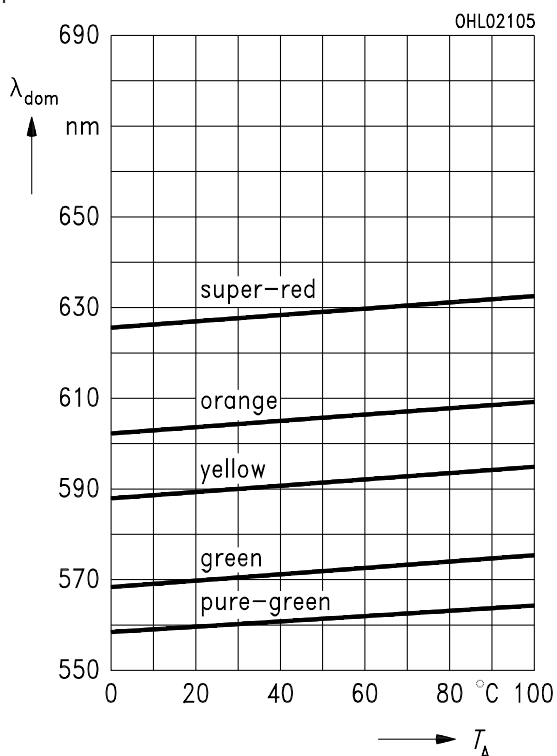
**Wellenlänge der Strahlung  $\lambda_{\text{peak}} = f(T_A)$**   
**Wavelength at peak emission**

$I_F = 20 \text{ mA}$



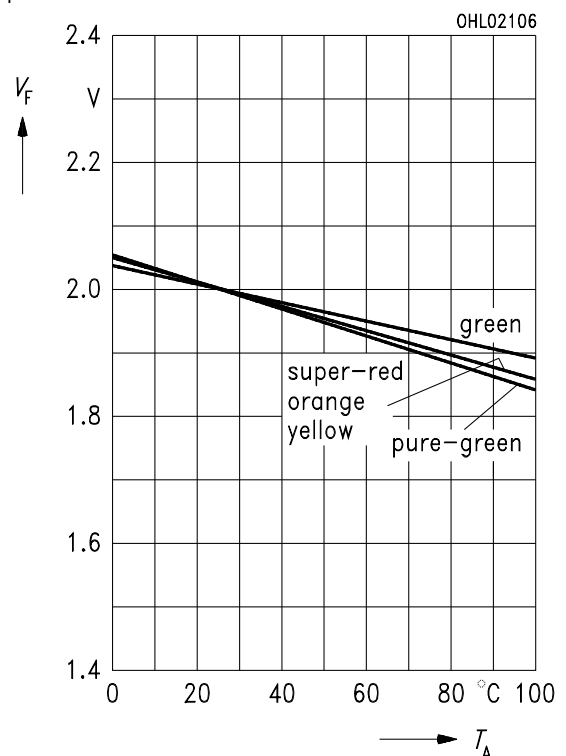
**Dominantwellenlänge  $\lambda_{\text{dom}} = f(T_A)$**   
**Dominant wavelength**

$I_F = 20 \text{ mA}$



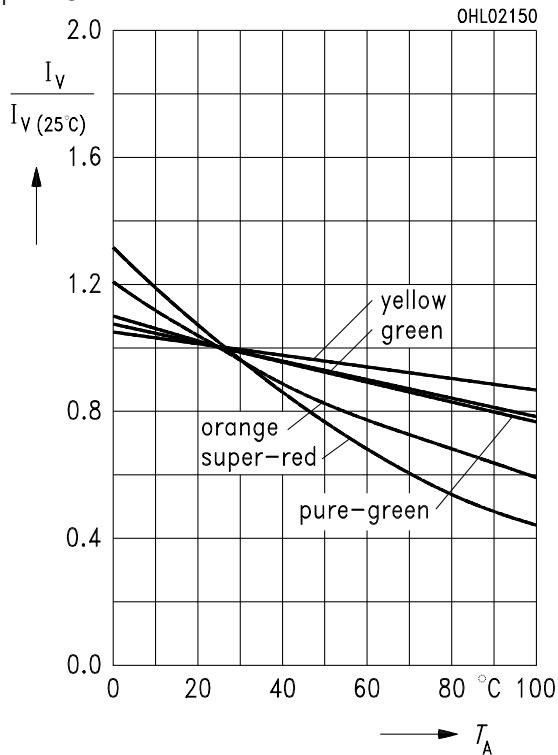
**Durchlaßspannung  $V_F = f(T_A)$**   
**Forward voltage**

$I_F = 10 \text{ mA}$

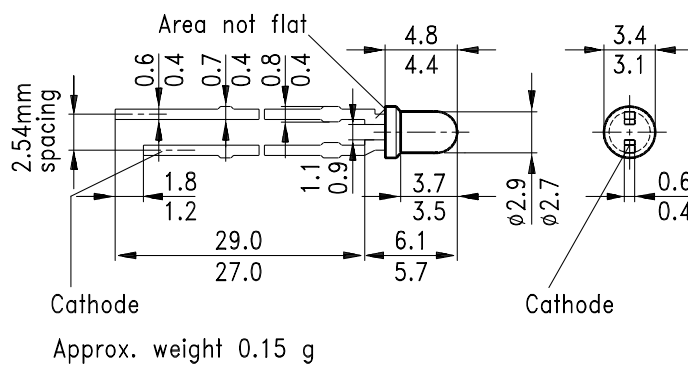


Relative Lichtstärke  $I_V/I_{V(25^\circ\text{C})} = f(T_A)$   
Relative luminous intensity

$I_F = 10 \text{ mA}$



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



GEX06951

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