

ARGUS® LED 3 mm (T1) LED, Non Diffused

LS K380, LO K380, LY K380
LG K380, LP K380

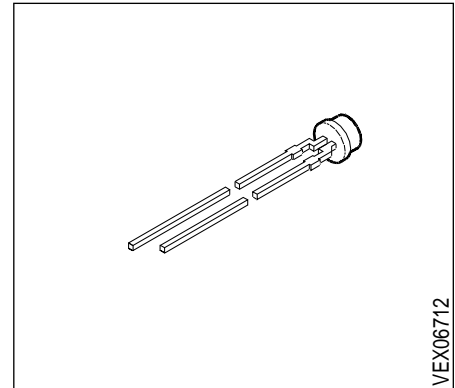
Besondere Merkmale

- eingefärbtes, klares Gehäuse
- Kunststoffgehäuse mit spezieller Formgebung
- bei Einsatz eines äußeren Reflektors zur Hintergrundbeleuchtung von Leuchtfeldern und LCD-Anzeigen geeignet.
- zur Direkteinkopplung in Lichtleiterflächen 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
 - in connection with an additional, custom built reflector suitable for backlighting of display panels
 - for optical coupling into light pipes
 - 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
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- **Note:** If the diffuser screen is tinted, the spectral transmission must be adjusted to the wavelength emitted by the LED.



Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstrom Luminous Flux $I_F = 15 \text{ mA}$ Φ_V (mlm)	Bestellnummer Ordering Code
LS K380-LP LS K380-N LS K380-P LS K380-Q LS K380-NR	super-red	red clear	10 ... 80 25 ... 50 40 ... 80 63 ... 125 25 ... 200	Q62703-Q1768 Q62703-Q0760 Q62703-Q1003 Q62703-Q1004 Q62703-Q2223
LO K380-LP LO K380-N LO K380-P LO K380-Q LO K380-NR	orange	orange clear	16 ... 125 25 ... 50 40 ... 80 63 ... 125 25 ... 200	Q62703-Q1888 Q62703-Q2227 Q62703-Q2228 Q62703-Q2229 Q62703-Q2201
LY K380-LP LY K380-N LY K380-P LY K380-Q LY K380-NR	yellow	yellow clear	16 ... 125 25 ... 50 40 ... 80 63 ... 125 25 ... 200	Q62703-Q1769 Q62703-Q0575 Q62703-Q0576 Q62703-Q3844 Q62703-Q2224
LG K380-LP LG K380-N LG K380-P LG K380-Q LG K380-NR	green	green clear	10 ... 80 25 ... 50 40 ... 80 63 ... 125 25 ... 200	Q62703-Q1770 Q62703-Q0759 Q62703-Q1034 Q62703-Q3193 Q62703-Q2225
LP K380-KN LP K380-L LP K380-M LP K380-N LP K380-LP	pure green	colorless clear	6.3 ... 50 10.0 ... 20 16.0 ... 32 25.0 ... 50 10.0 ... 80	Q62703-Q2506 Q62703-Q3215 Q62703-Q2610 Q62703-Q2605 Q62703-Q3217

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

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

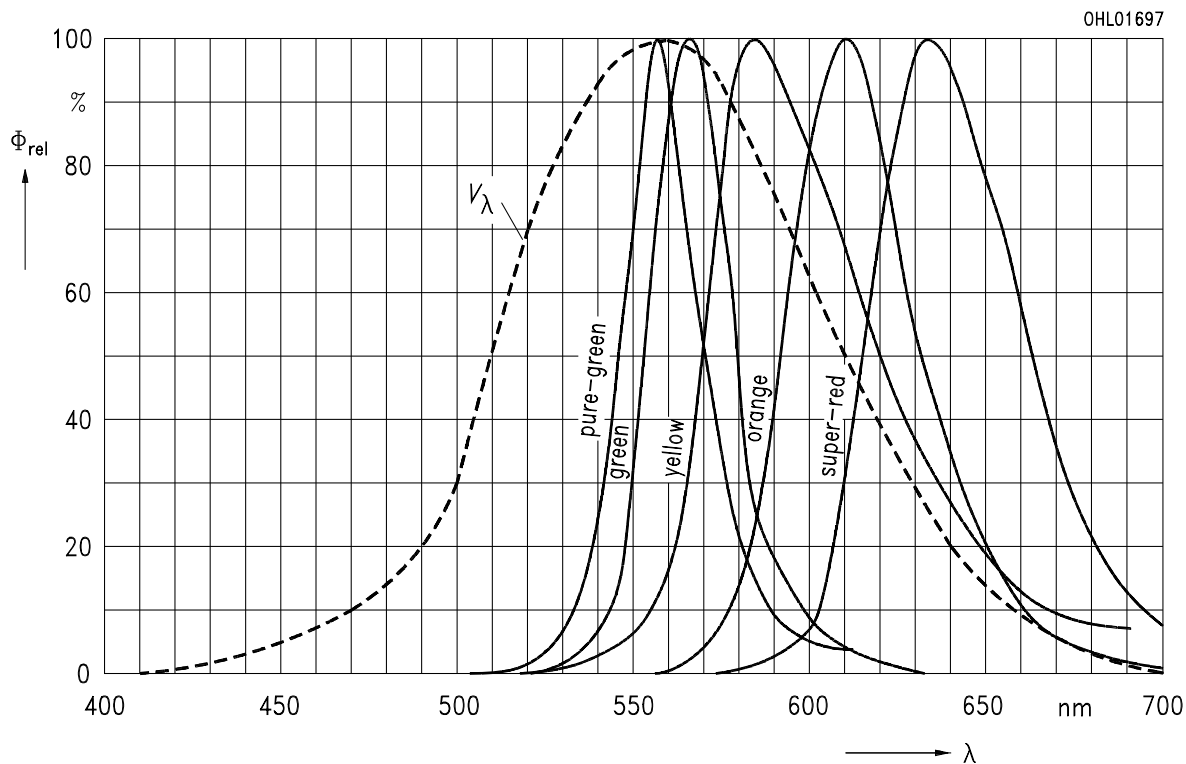
Bezeichnung Parameter	Symbol Symbol	Werte Values					Einheit Unit
		LS	LO	LY	LG	LP	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 20\text{ mA}$	λ_{peak}	635	610	586	565	557	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 20\text{ mA}$	λ_{dom}	628	605	590	570	560	nm
Spektrale Bandbreite bei 50 % $\Phi_{\text{rel max}}$ (typ.) Spectral bandwidth at 50 % $\Phi_{\text{rel max}}$ (typ.) $I_F = 20\text{ mA}$	$\Delta\lambda$	45	40	45	25	22	nm
Durchlaßspannung (typ.) Forward voltage (max.) $I_F = 15\text{ mA}$	V_F	2.1	2.1	2.1	2.1	2.1	V
Sperrstrom (typ.) Reverse current (max.) $V_R = 5\text{ V}$	I_R	0.01	0.01	0.01	0.01	0.01	μA
Kapazität (typ.) Capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_0	12	8	10	15	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	300 150	300 150	300 150	450 200	450 200	ns ns

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

Relative spectral emission

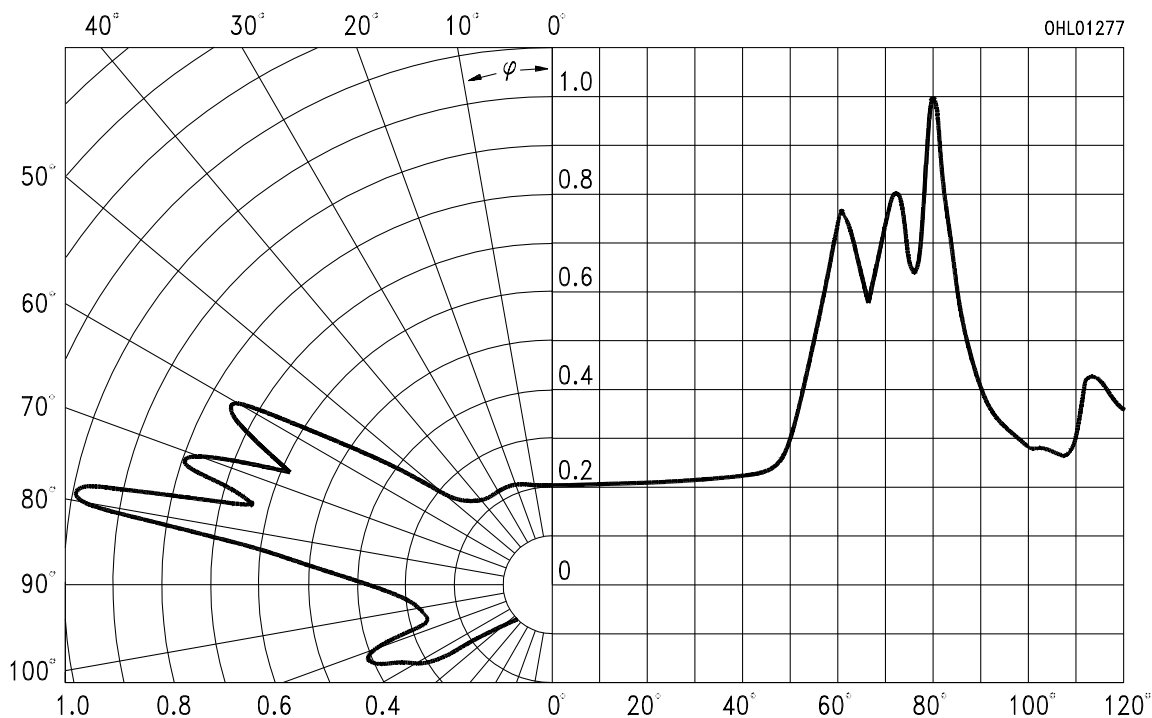
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



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

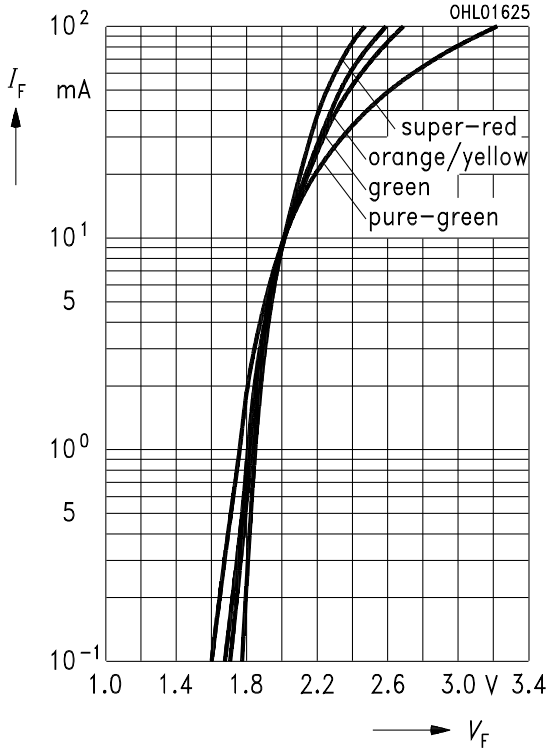
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

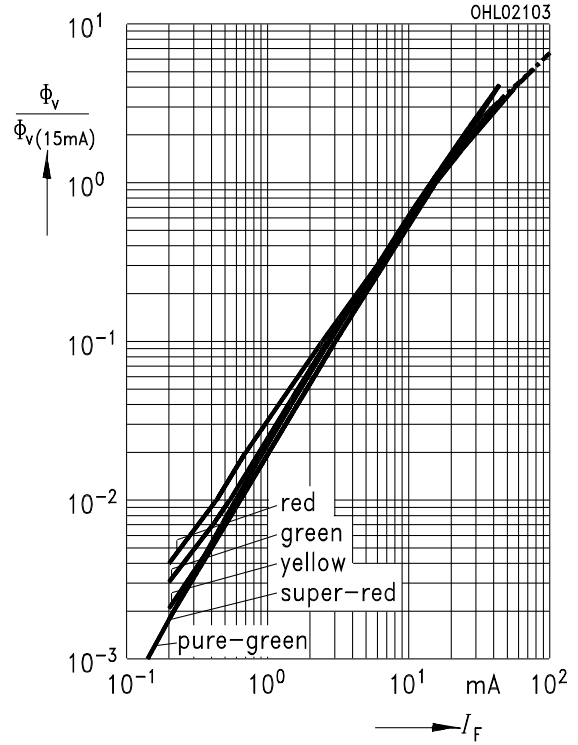
$T_A = 25^\circ\text{C}$



Relativer Lichtstrom $\Phi_V / \Phi_{V(15\text{ mA})} = f(I_F)$

Relative luminous flux

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

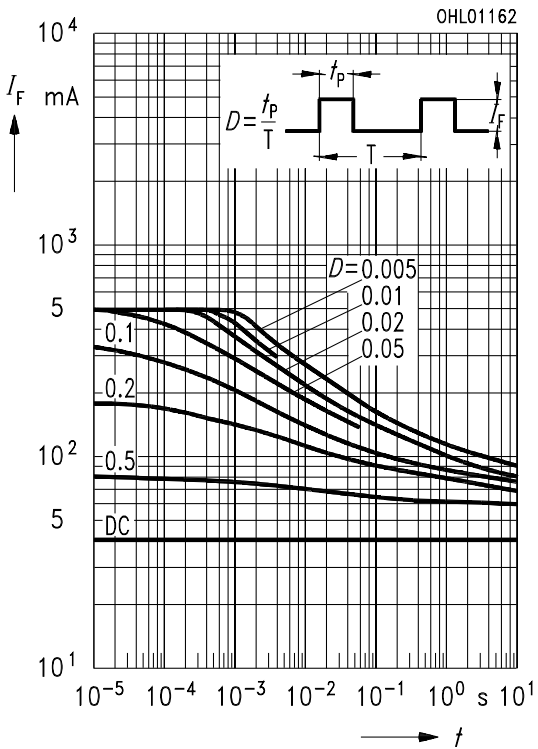


Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

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

LS, LO, LY, LG

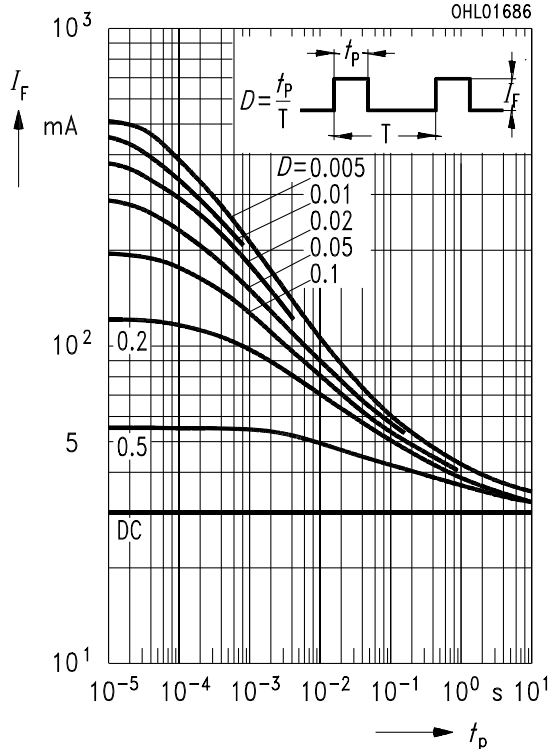


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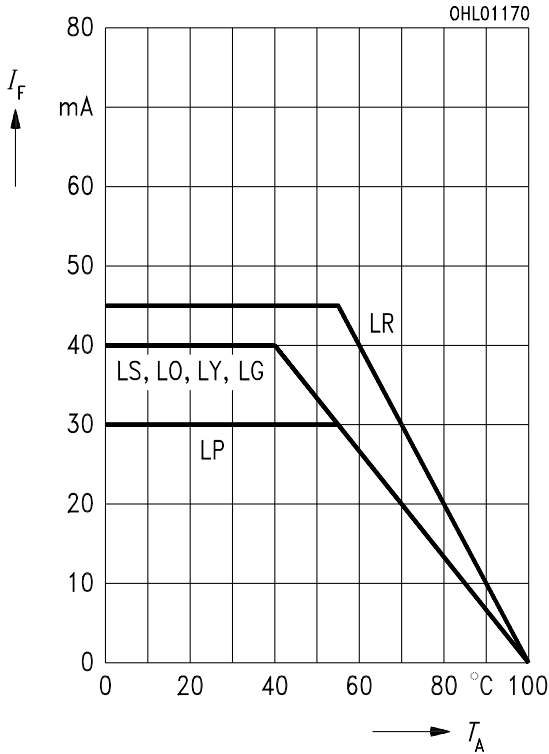
Duty cycle $D =$ parameter, $T_A = 25^\circ\text{C}$

LP



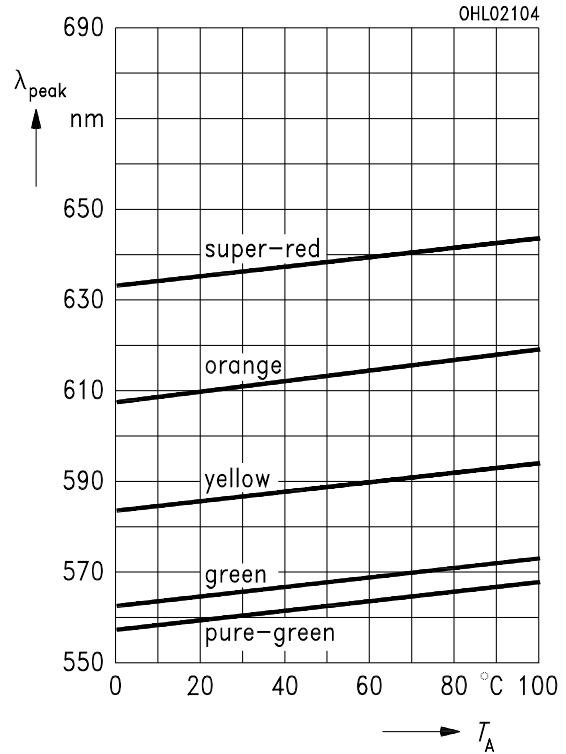
Maximal zulässiger Durchlaßstrom Max. permissible forward current

$$I_F = f(T_A)$$



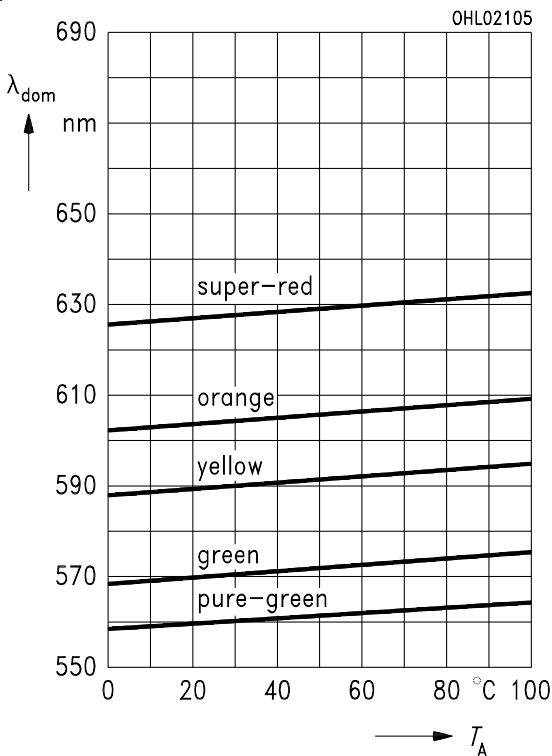
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$ Wavelength at peak emission

$$I_F = 15 \text{ mA}$$



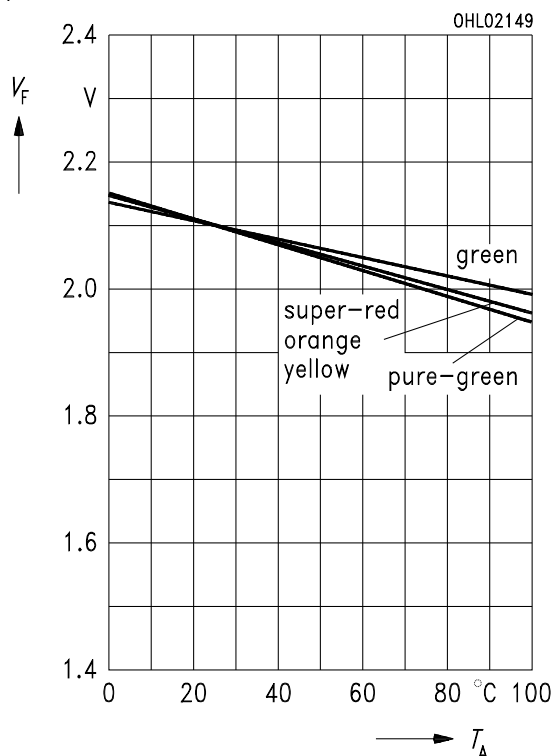
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$ Dominant wavelength

$$I_F = 15 \text{ mA}$$



Durchlaßspannung $V_F = f(T_A)$ Forward voltage

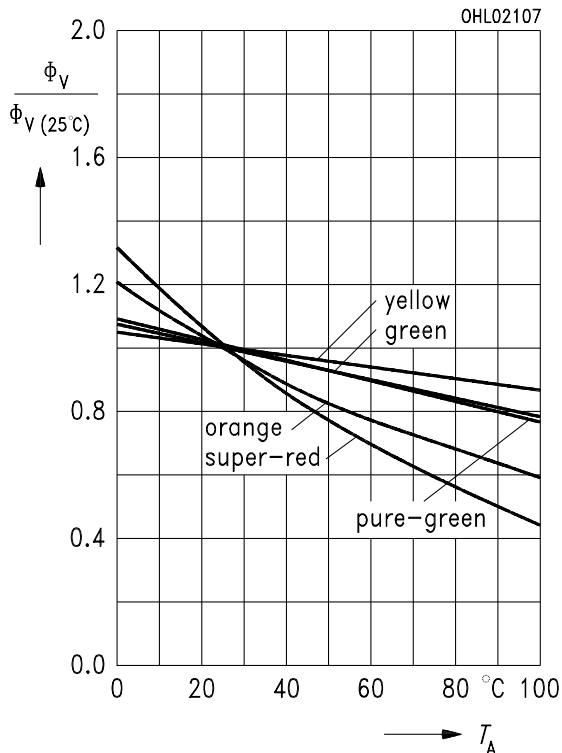
$$I_F = 15 \text{ mA}$$



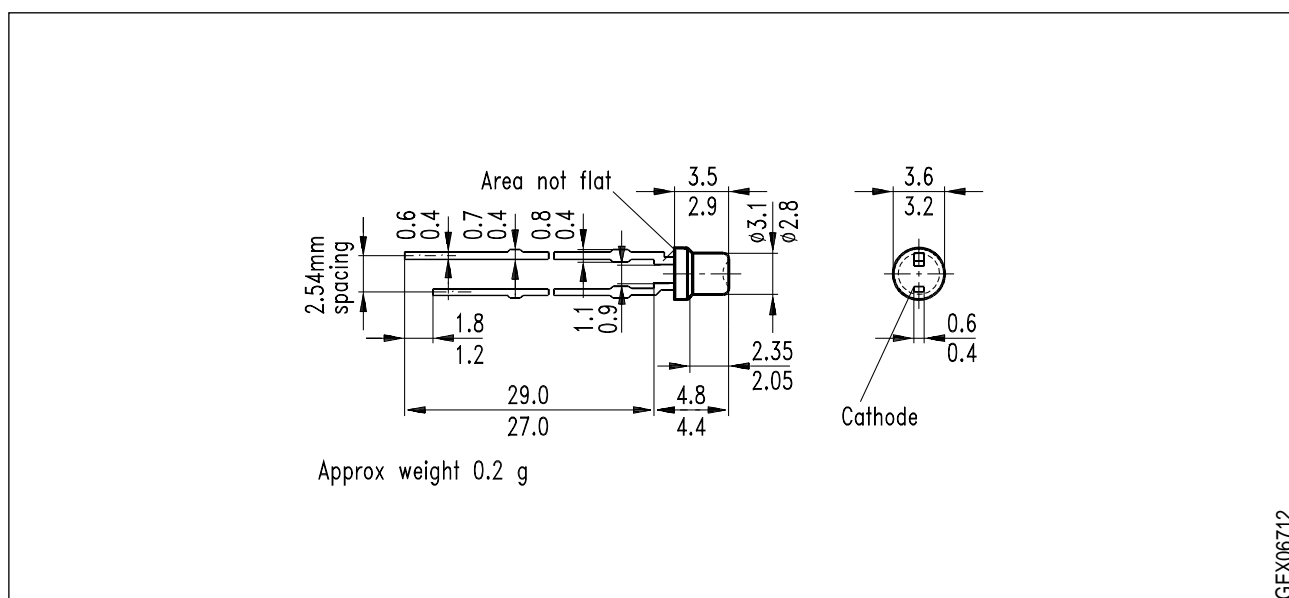
Relativer Lichtstrom $\Phi_V/\Phi_{V(25^\circ\text{C})} = f(T_A)$

Relative luminous flux

$I_F = 15 \text{ mA}$



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



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead