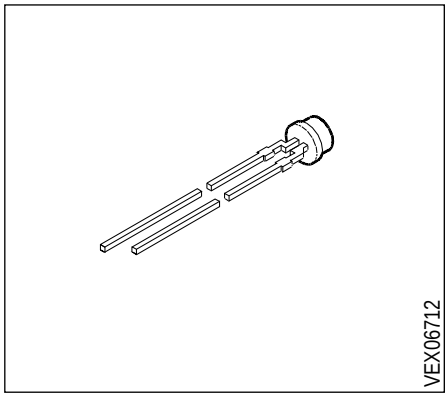
SIEMENS

LC ARGUS® LED LS K389, LY K389, LG K389
Low current 3 mm (T1) LED, Non Diffused



Besondere Merkmale

- eingefärbtes, klares Gehäuse
- Kunststoffgehäuse mit spezieller Formgebung
- hohe Lichtstärke bei kleinen Strömen (typ. 2 mA)
- bei Einsatz eines äußeren Reflectors 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
- plasic package with a special design
- high light intensity at low currents (typ. 2 mA)
- 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
- **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 **= 2 mA** Φ_V **(mlm)**	**Bestellnummer** **Ordering Code**
LS K389-FO	super-red	red clear	≥1 (5.0 typ.)	Q62703-Q1771
LY K389-FO	yellow	yellow clear	≥1 (3.2 typ.)	Q62703-Q1772
LG K389-FO	green	green clear	≥1 (3.2 typ.)	Q62703-Q1773

Streuung des Lichtstromes in einer Verpackungseinheit $\Phi_{V\,max}/\Phi_{V\,min} \leq 2.0$.
Luminous flux ratio in one packaging unit $\Phi_{V\,max}/\Phi_{V\,min} \leq 2.0$.

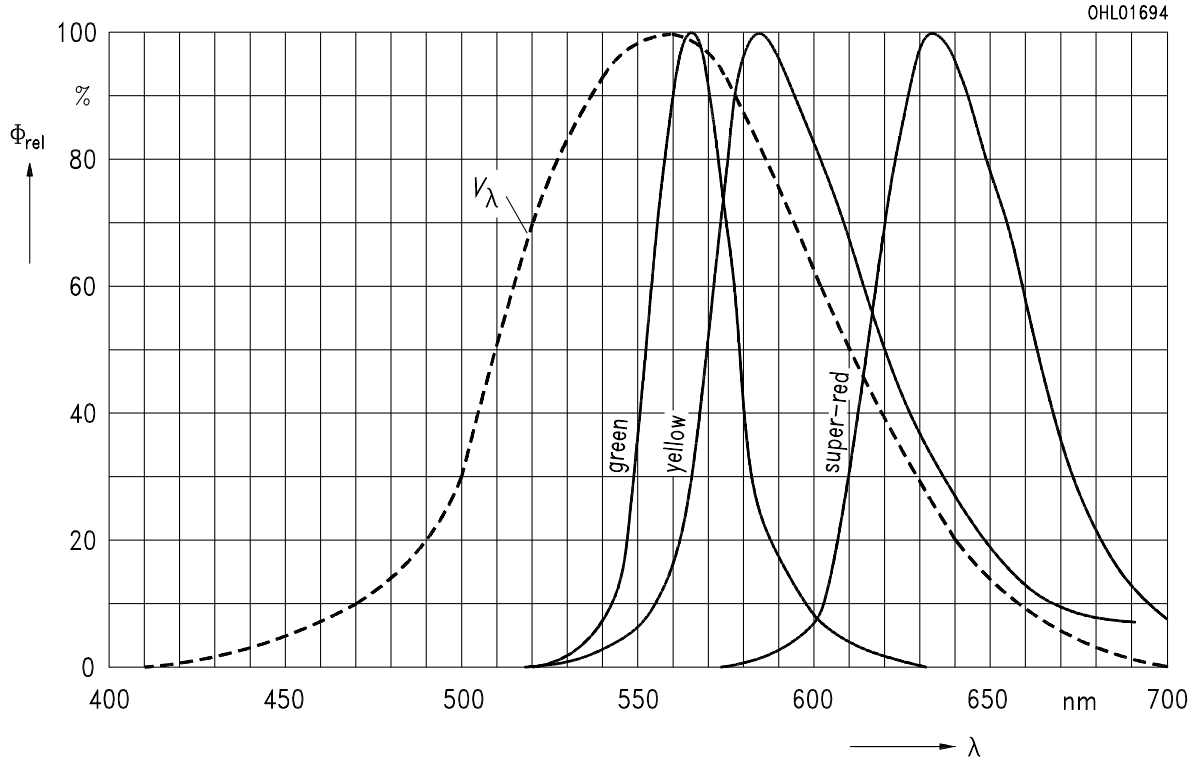
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**	**Einheit** **Unit**
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 $t \leq 10$ µs, D = 0.005	I_{FM}	150	mA
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25$ °C	P_{tot}	20	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th\ JA}$	500	K/W

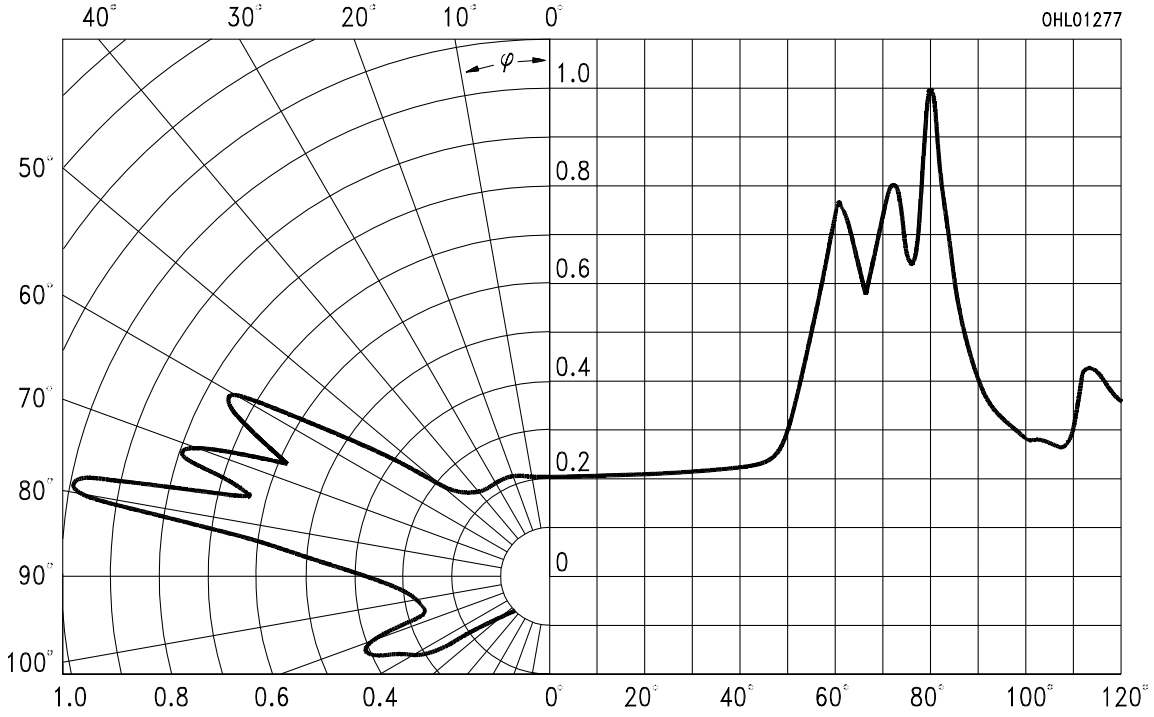
Kennwerte (T_A = 25 ˚C)
Characteristics

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 mA	λ_{peak}	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 7.5 mA	λ_{dom}	628	590	570	nm
Spektrale Bandbreite bei 50 % $\Phi_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $\Phi_{rel\ max}$ (typ.) I_F = 7.5 mA	$\Delta\lambda$	45	45	25	nm
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 2 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 V	I_R I_R	0.01 10	0.01 10	0.01 10	µA µA
Kapazität (typ.) Capacitance V_R = 0 V, f = 1 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 mA, t_P = 10 µs, R_L = 50 Ω	 t_r t_f	 200 150	 200 150	 450 200	 ns ns

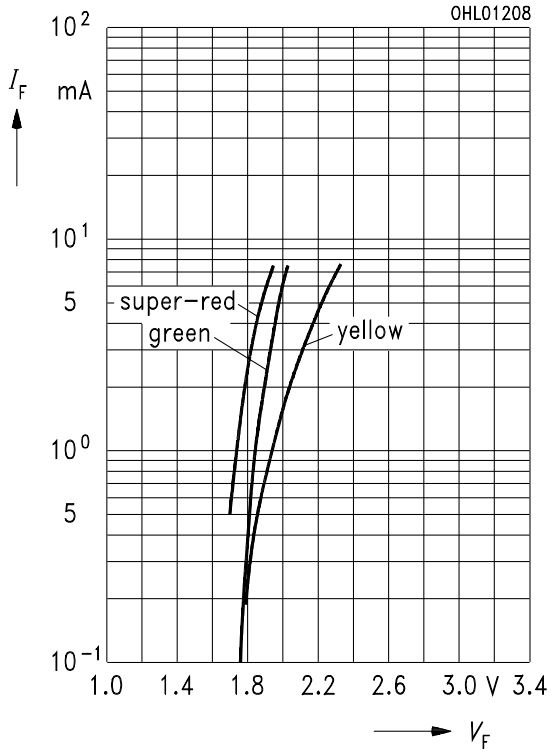
Relative spektrale Emission $\Phi_{rel} = f(\lambda)$, T_A = 25 °C, I_F = 7.5 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



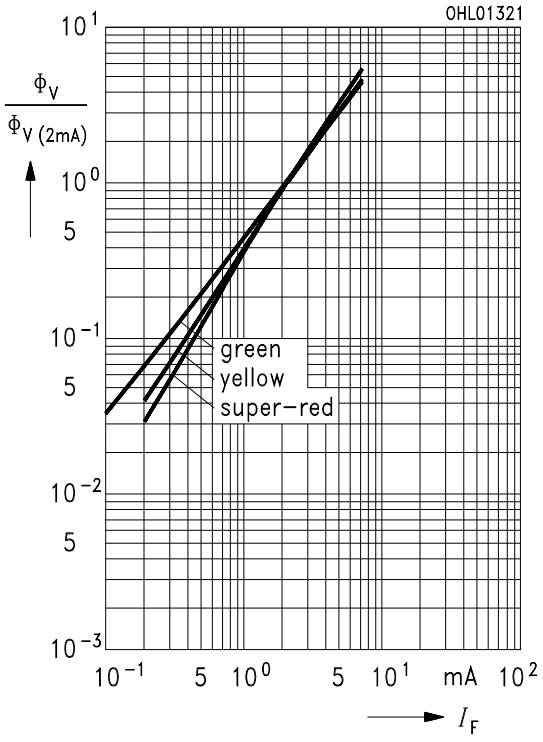
Abstrahlcharakteristik $\Phi_{rel} = f(\varphi)$
Radiation characteristic



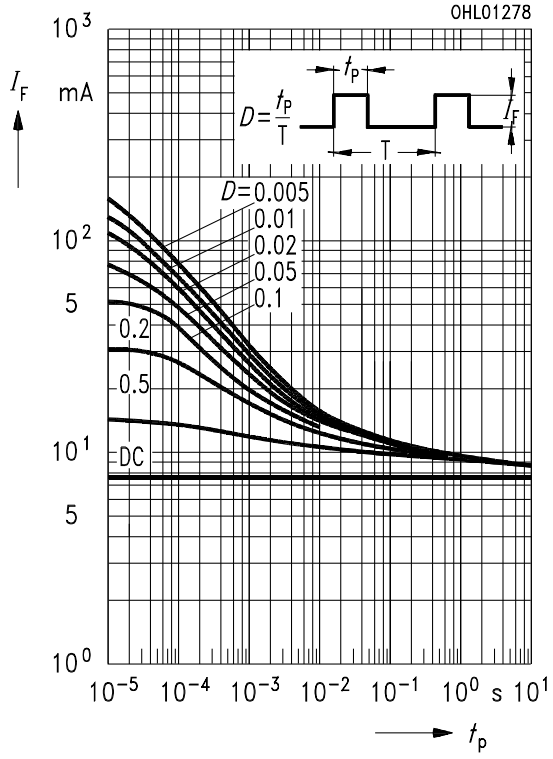
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ℃



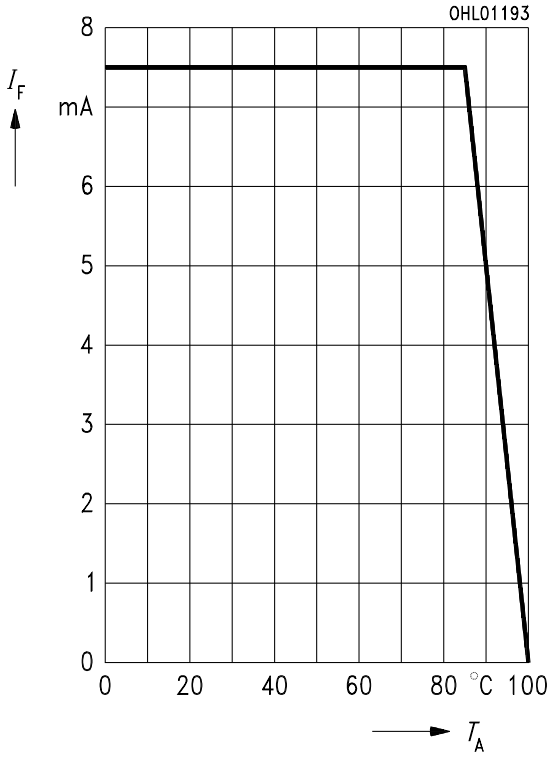
Relativer Lichtstrom $\Phi_V/\Phi_{V\,(2\ mA)} = f(I_F)$
Relative luminous flux
T_A = 25 ℃



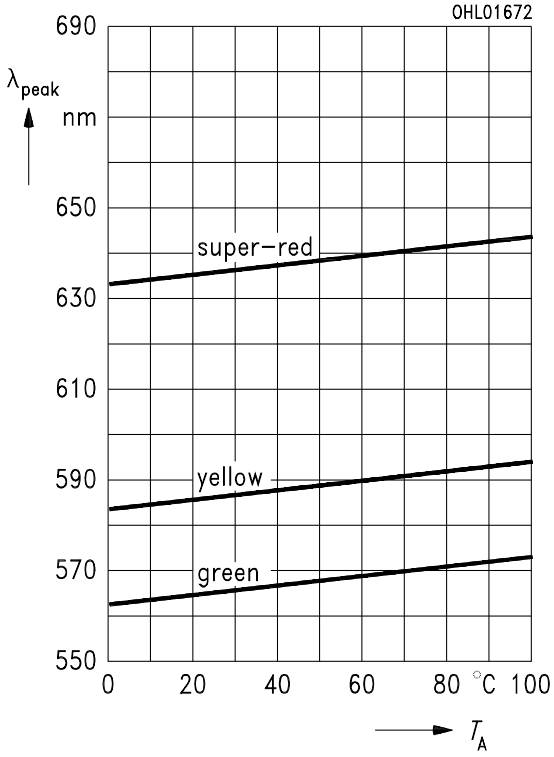
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ℃



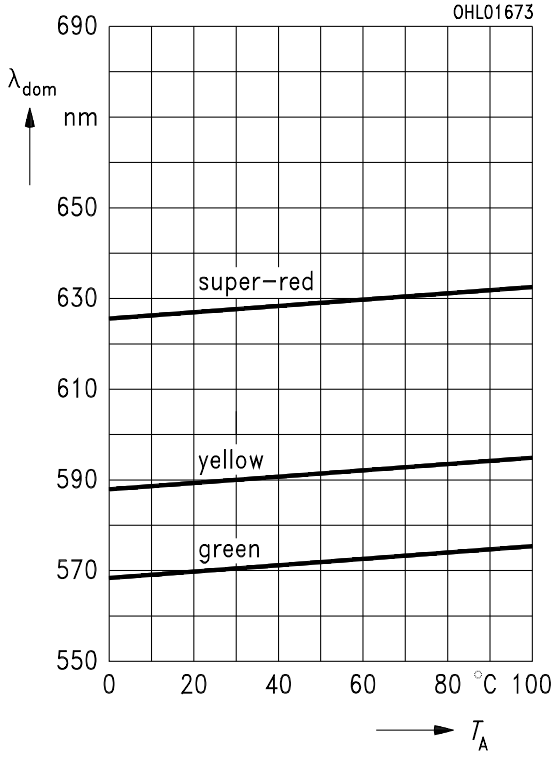
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



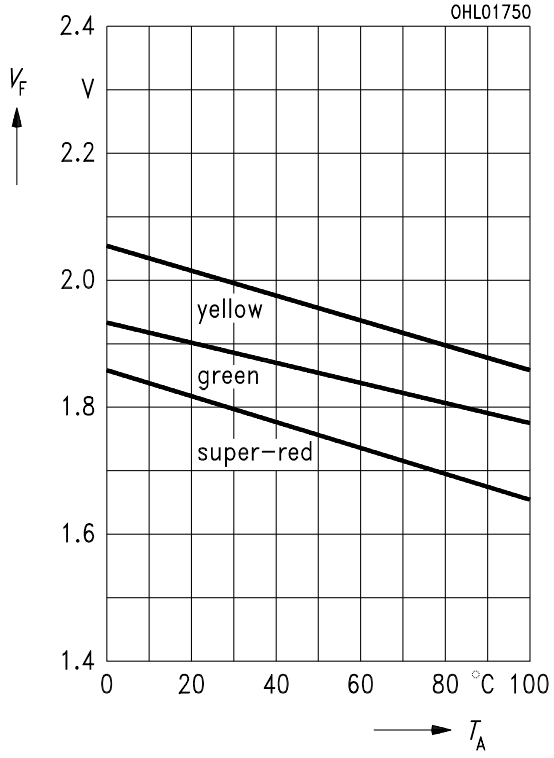
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 7.5 mA



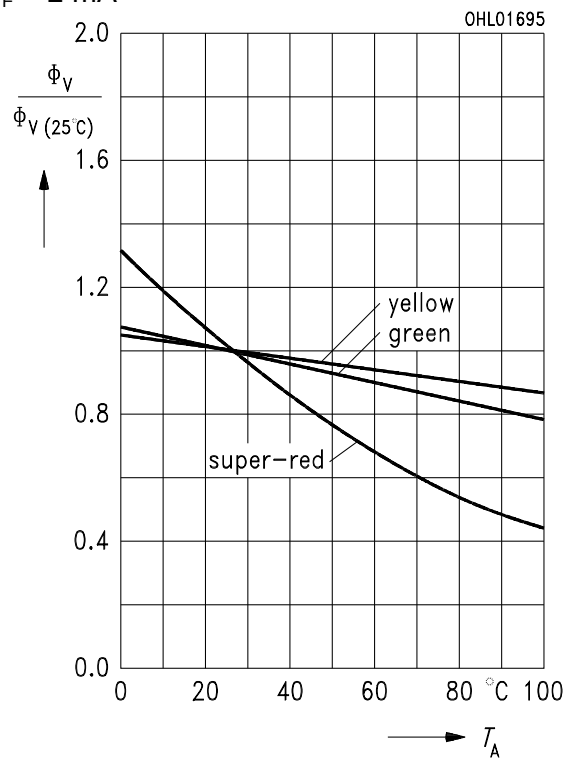
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 7.5 mA



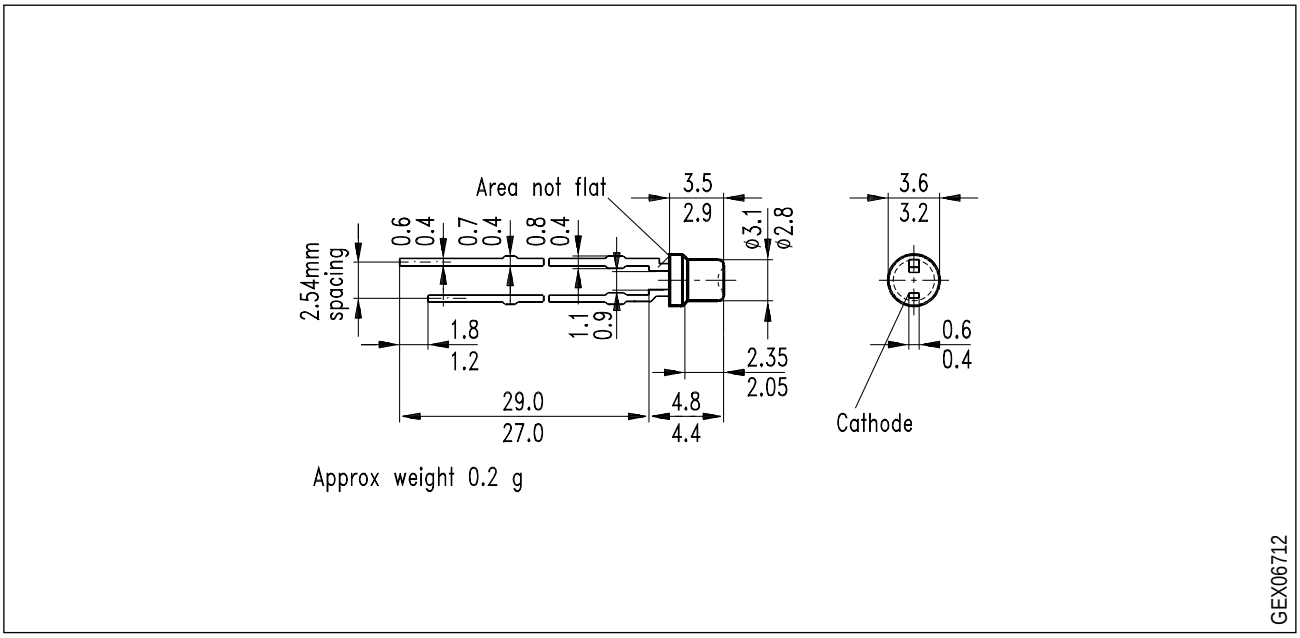
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 2 mA



Relativer Lichtstrom $\Phi_V/\Phi_{V(25\,°C)} = f(T_A)$
Relative luminous flux
I_F = 2 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