

LC 5 mm (T1 3/4) LED, Diffused Low Current LED

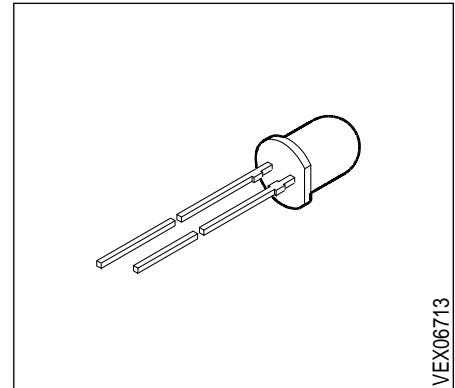
LS 5469, LY 5469, LG 5469

Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- als optischer Indikator einsetzbar
- hohe Lichtstärke bei kleinen Strömen (typ. 2 mA)
- Lötspieße ohne Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

Features

- colored, diffused package
- for use as optical indicator
- high luminous intensity at low currents (typ. 2 mA)
- solder leads without stand-off
- available taped on reel
- load dump resistant acc. to DIN 40839



Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstärke Luminous Intensity $I_F = 2 \text{ mA}$ I_V (mcd)	Bestellnummer Ordering Code
LS 5469-EH	super-red	red diffused	0.63 ... 5.0	Q62703-Q1751
LS 5469-G			1.60 ... 3.2	Q62703-Q2344
LS 5469-H			2.50 ... 5.0	Q62703-Q2345
LS 5469-GK			1.60 ... 12.5	Q62703-Q3833
LY 5469-EH	yellow	yellow diffused	0.63 ... 5.0	Q62703-Q1752
LY 5469-F			1.00 ... 2.0	Q62703-Q3834
LY 5469-G			1.60 ... 3.2	Q62703-Q3835
LY 5469-H			2.50 ... 5.0	Q62703-Q3836
LY 5469-FJ			1.00 ... 8.0	Q62703-Q3837
LG 5469-EH	green	green diffused	0.63 ... 5.0	Q62703-Q1753
LG 5469-F			1.00 ... 2.0	Q62703-Q3856
LG 5469-G			1.60 ... 3.2	Q62703-Q3857
LG 5469-FJ			1.00 ... 8.0	Q62703-Q3858

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}	150	mA
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25 \text{ °C}$	P_{tot}	20	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th JA}$	500	K/W

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

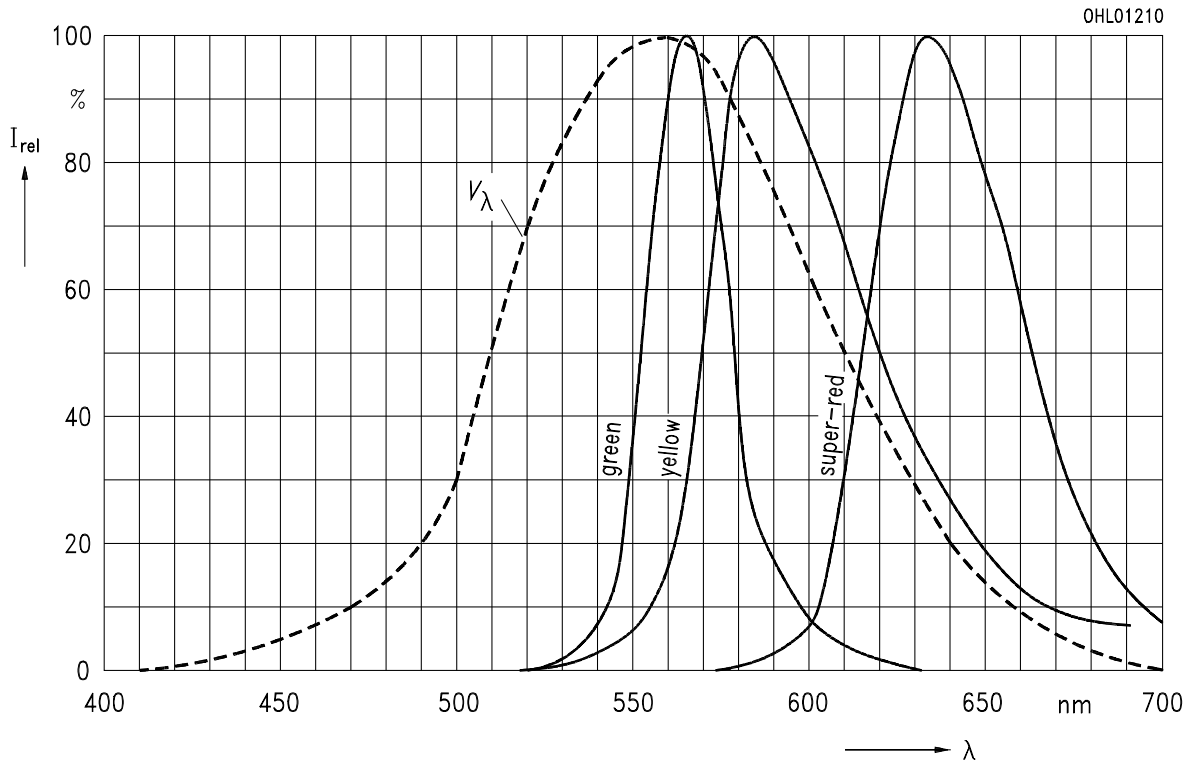
Bezeichnung Parameter	Symbol Symbol	Werte Values			Einheit Unit
		LS	LY	LG	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 7.5\text{ mA}$	λ_{peak}	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 7.5\text{ mA}$	λ_{dom}	628	590	570	nm
Spektrale 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	50	50	50	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 $I_{rel} = f(\lambda)$, $T_A = 25\text{ °C}$, $I_F = 7.5\text{ mA}$

Relative spectral emission

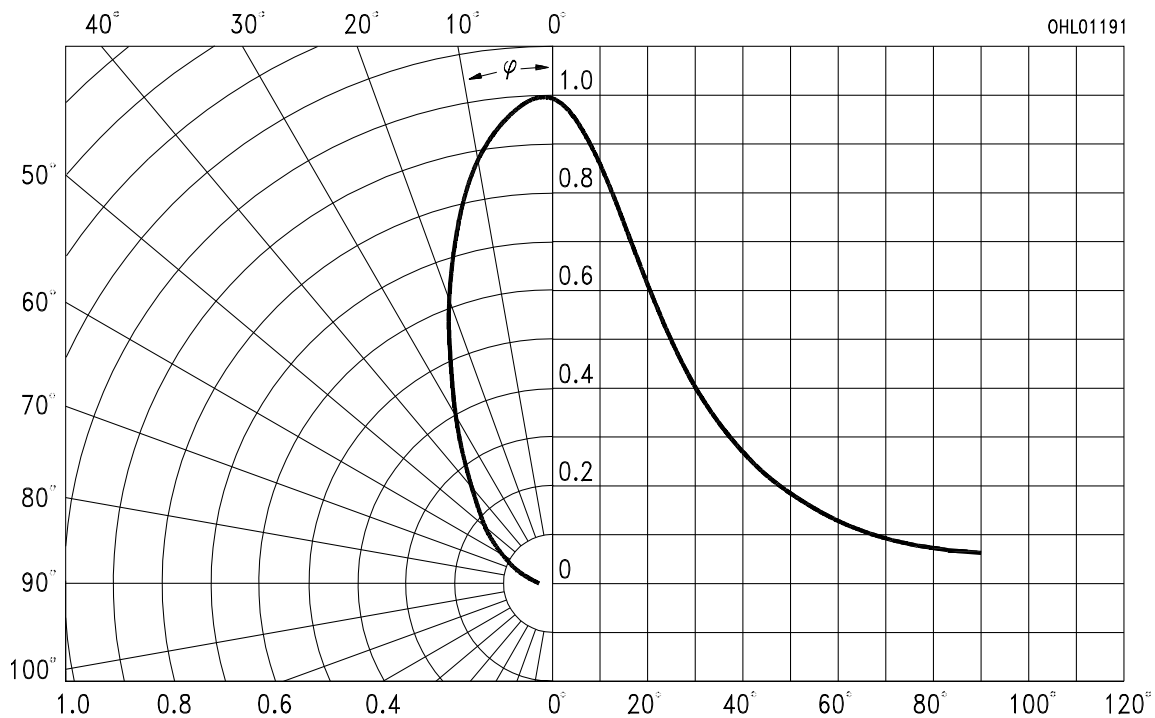
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



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

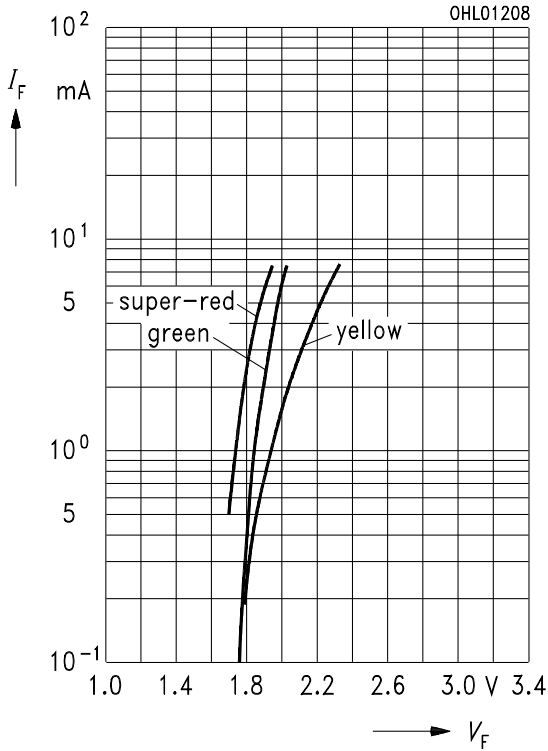
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

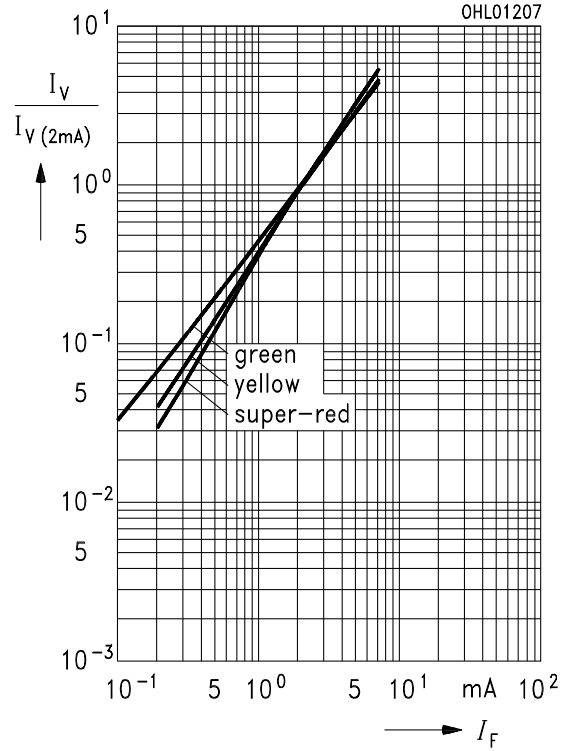
$T_A = 25^\circ\text{C}$



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

Relative luminous intensity

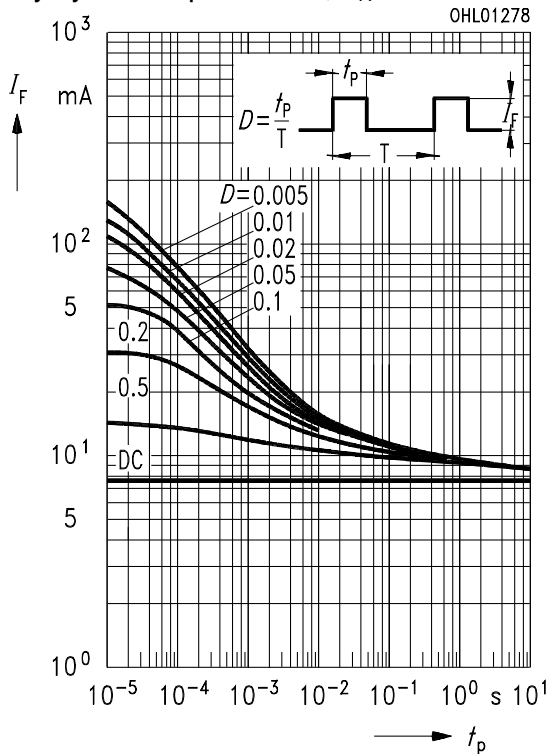
$T_A = 25^\circ\text{C}$



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

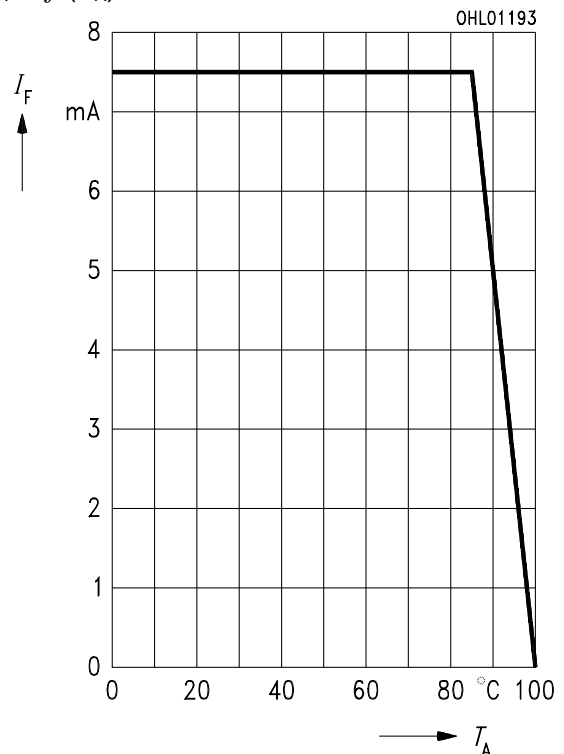
Duty cycle $D = \text{parameter}$, $T_A = 25^\circ\text{C}$



Maximal zulässiger Durchlaßstrom

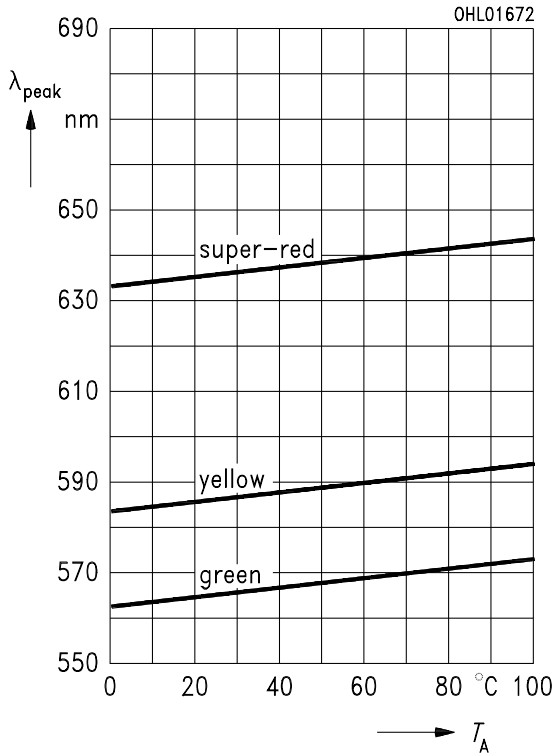
Max. permissible forward current

$I_F = f(T_A)$



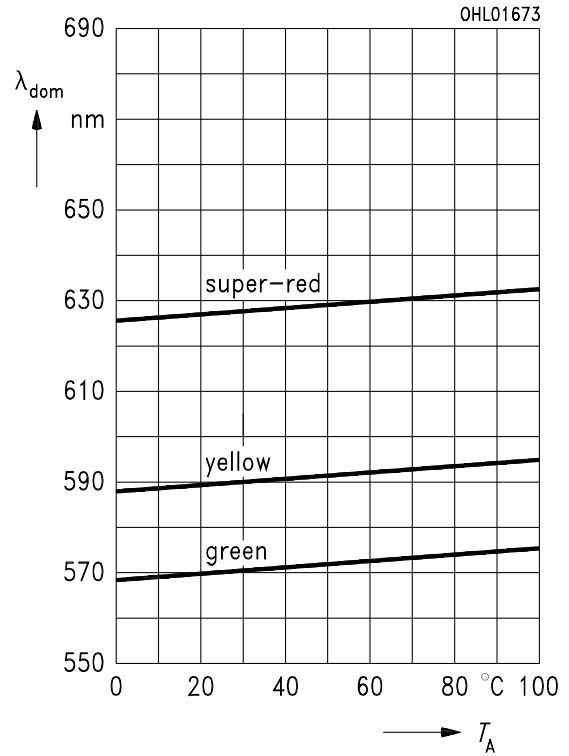
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$
Wavelength at peak emission

$I_F = 7.5 \text{ mA}$



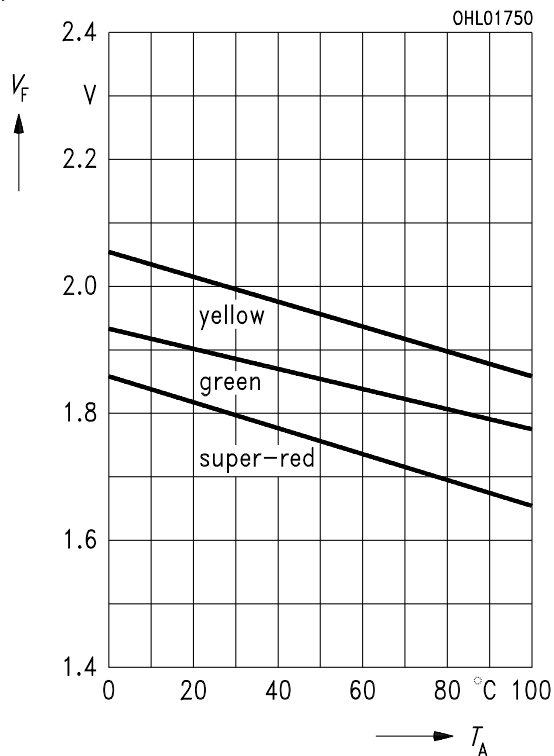
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$
Dominant wavelength

$I_F = 7.5 \text{ mA}$



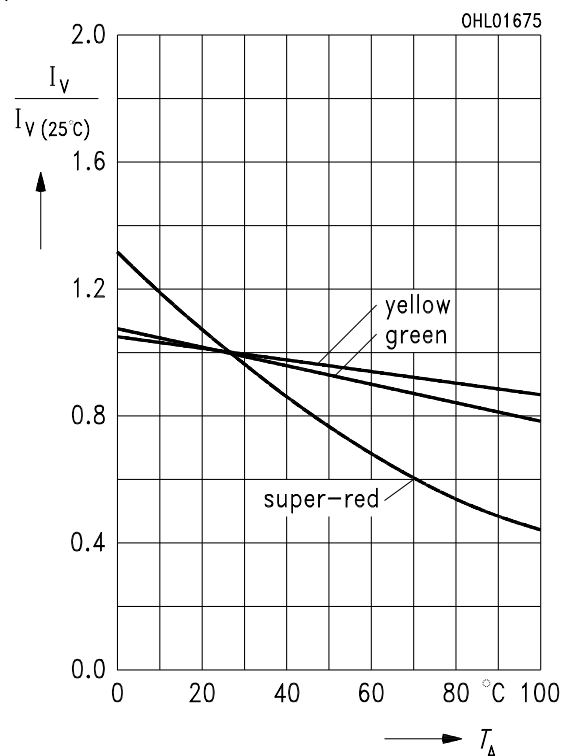
Durchlaßspannung $V_F = f(T_A)$
Forward voltage

$I_F = 2 \text{ mA}$

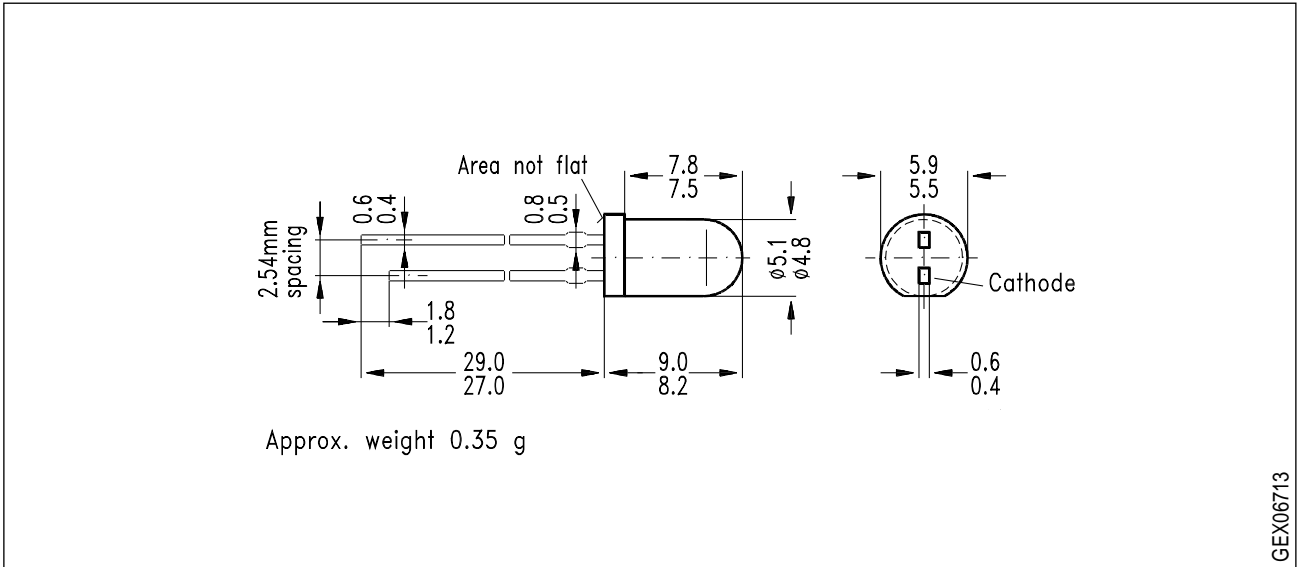


Relative Lichtstärke $I_V/I_{V(25^\circ\text{C})} = f(T_A)$
Relative luminous intensity

$I_F = 2 \text{ mA}$



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



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead