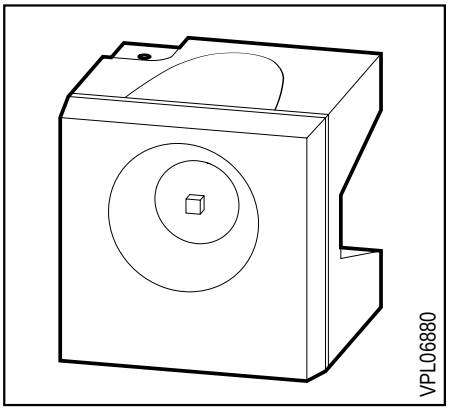
SIEMENS

Super SIDELED®
High-Current LED

LS A672, LO A672, LY A672
LG A672, LP A672



Besondere Merkmale

- Gehäusefarbe: weiß
- als optischer Indikator einsetzbar
- besonders geeignet bei hohem Umgebungslicht durch erhöhten Betriebsstrom (≤ 50 mA DC)
- zur Hinterleuchtung, Lichtleiter- und Linseneinkopplung
- für alle SMT-Bestück- und Reflow-Löttechniken geeignet
- gegurtet (12-mm-Filmgurt)
- Störimpulsfest nach DIN 40839

Features

- color of package: white
- for use as optical indicator
- appropriate for high ambient light because of the higher operating current (≤ 50 mA DC)
- for backlighting, optical coupling into light pipes and lenses
- suitable for all SMT assembly and reflow soldering methods
- available taped on reel (12 mm tape)
- load dump resistant acc. to DIN 40839

Typ Type	Emissions-farbe Color of Emission	Farbe der Lichtaustritts-fläche Color of the Light Emitting Area	Lichtstärke Luminous Intensity I_F = 50 mA I_V (mcd)	Lichtstrom Luminous Flux I_F = 50 mA Φ_V (mlm)	Bestellnummer Ordering Code
■ LS A672-LP	super-red	colorless clear	10 ... 80	-	Q62703-Q2761
■ LS A672-N			25 ... 50	100 (typ.)	Q62703-Q2849
■ LS A672-P			40 ... 80	180 (typ.)	Q62703-Q3226
■ LS A672-NR			25 ... 200	-	Q62703-Q2850
■ LO A672-LP	orange	colorless clear	10 ... 80	-	Q62703-Q2548
■ LO A672-N			25 ... 50	100 (typ.)	Q62703-Q2851
■ LO A672-P			40 ... 80	180 (typ.)	Q62703-Q2852
■ LO A672-NR			25 ... 200	-	Q62703-Q2853
■ LY A672-LN	yellow	colorless clear	10 ... 50	-	Q62703-Q2553
■ LY A672-N			25 ... 50	100 (typ.)	Q62703-Q2854
■ LY A672-P			40 ... 80	180 (typ.)	Q62703-Q2855
■ LY A672-MQ			16 ... 125	-	Q62703-Q2856
LG A672-LP	green	colorless clear	10 ... 80	-	Q62703-Q2544
LG A672-N			25 ... 50	100 (typ.)	Q62703-Q2857
LG A672-P			40 ... 80	180 (typ.)	Q62703-Q2858
LG A672-MQ			16 ... 125	-	Q62703-Q2859
LP A672-KN	pure green	colorless clear	6.3 ... 50	-	Q62703-Q2860
LP A672-L			10 ... 20	45 (typ.)	Q62703-Q3838
LP A672-M			16 ... 32	75 (typ.)	Q62703-Q3839
LP A672-N			25 ... 50	100 (typ.)	Q62703-Q3148
LP A672-LP			10 ... 80	-	Q62703-Q2863

■ Nicht für Neuentwicklungen / Not for new design

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	50	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	1	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation	P_{tot}	190	mW
Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air Montage auf PC-board*) (Padgröße je ≥ 16 mm^2) mounted on PC board*) (padsize ≥ 16 mm^2 each)	$R_{th\ JA}$	330	K/W

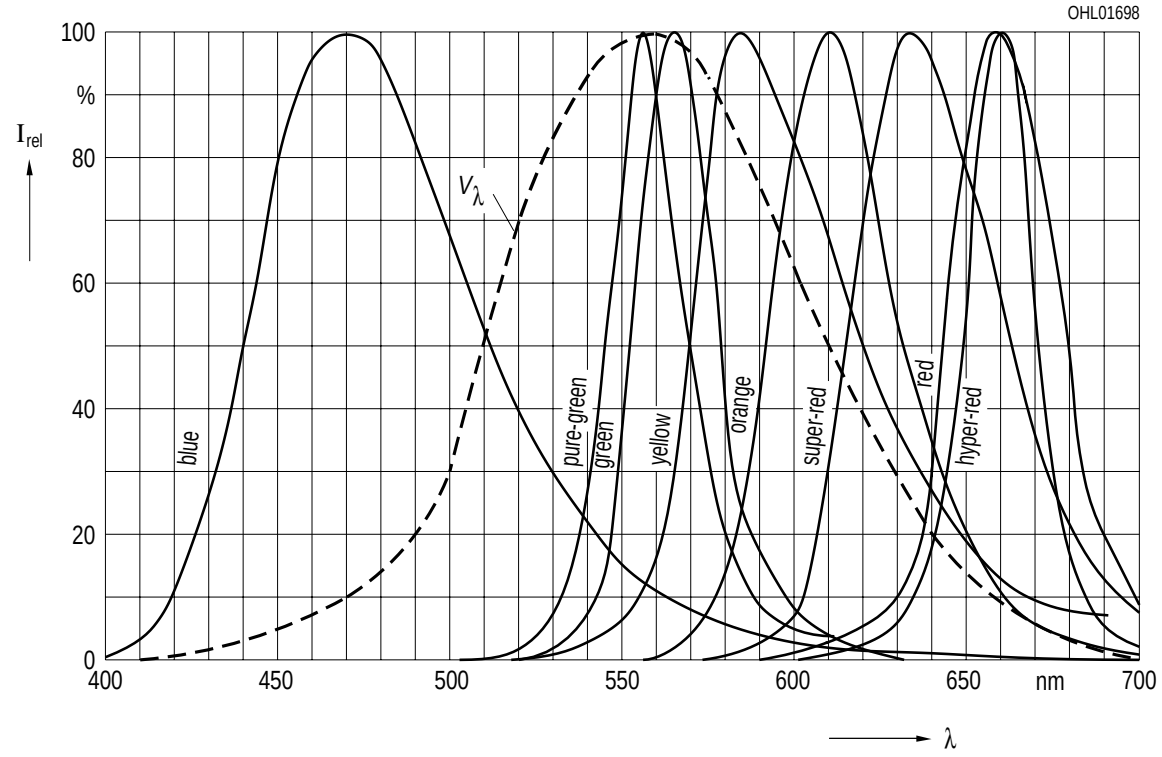
*) PC-board: FR4

Kennwerte (T_A = 25 ˚C)
Characteristics

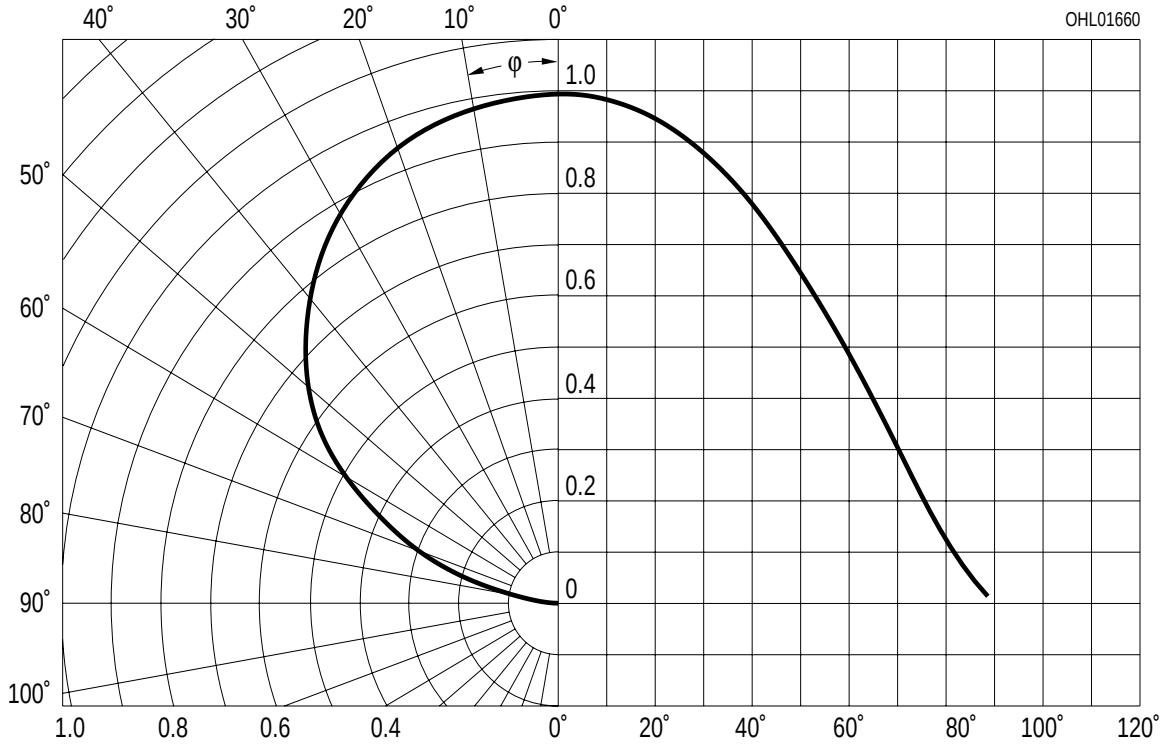
Bezeichnung **Parameter**		**Symbol** **Symbol**	**Werte** **Values**					**Einheit** **Unit**
			LS	**LO**	**LY**	**LG**	**LP**	
Wellenlänge des emittierten Lichtes Wavelength at peak emission I_F = 10 mA	(typ.) (typ.)	λ_{peak}	635	610	586	565	557	nm
Dominantwellenlänge Dominant wavelength I_F = 10 mA	(typ.) (typ.)	λ_{dom}	628	605	590	570	560	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ Spectral bandwidth at 50 % $I_{rel\ max}$ I_F = 10 mA	(typ.) (typ.)	$\Delta\lambda$	45	40	45	25	22	nm
Abstrahlwinkel bei 50 % I_v (Vollwinkel) Viewing angle at 50 % I_v		2φ	120	120	120	120	120	deg.
Durchlaßspannung Forward voltage I_F = 50 mA	(typ.) (max.)	V_F V_F	2.0 3.8	2.1 3.8	2.2 3.8	2.6 3.8	2.6 3.8*)	V V
Sperrstrom Reverse current V_R = 5 V	(typ.) (max.)	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Kapazität Capacitance V_R = 0 V, f = 1 MHz	(typ.)	C_0	40	35	35	60	80	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % I_V from 90 % to 10 % I_F = 100mA, t_p = 10 µs, R_L = 50 Ω	 (typ.) (typ.)	 t_r t_f	 350 200	 500 250	 350 200	 500 250	 500 250	 ns ns

*) V_F max = 3.2 V as of Febr. 97

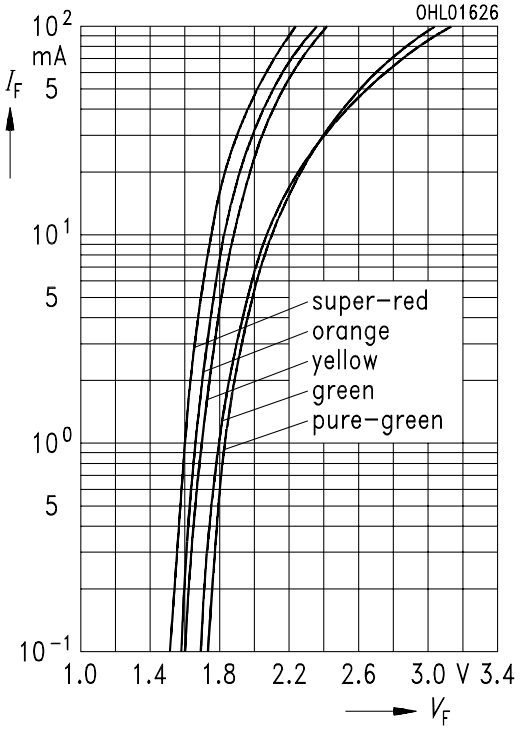
Relative spektrale Emission $I_{rel} = f(\lambda)$, $T_A = 25$ °C, $I_F = 10$ mA
Relative Spectral Emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



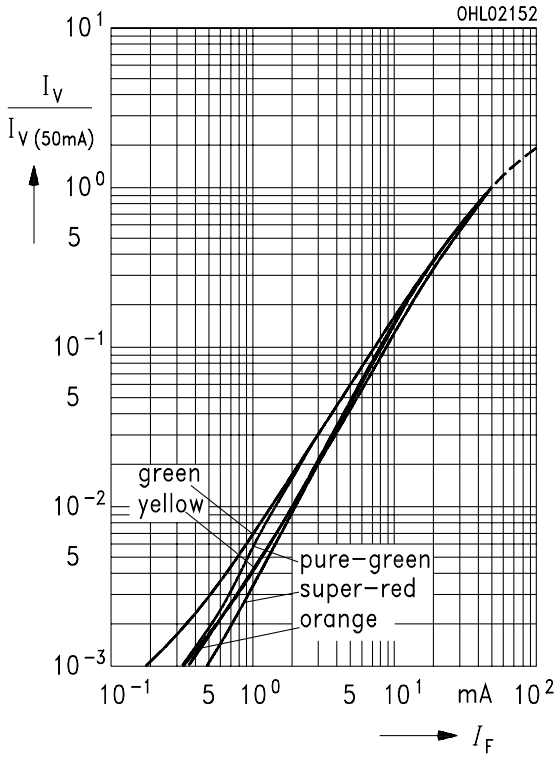
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



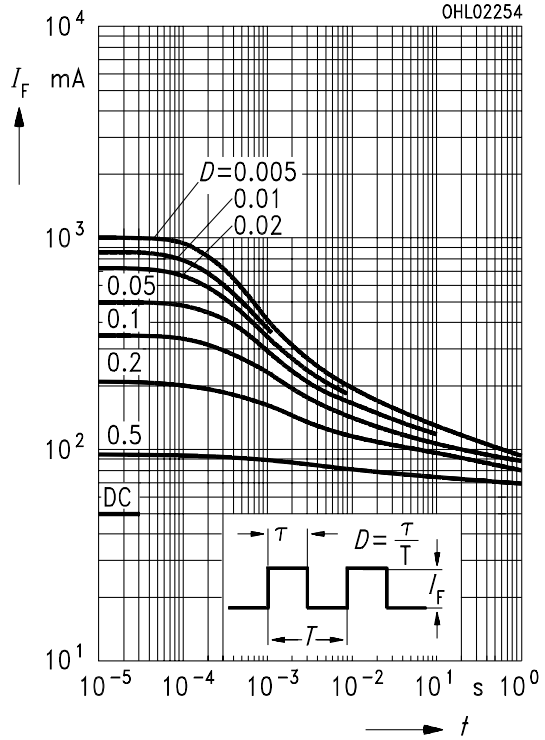
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ˚C



Relative Lichtstärke $I_V/I_{V(50\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ˚C



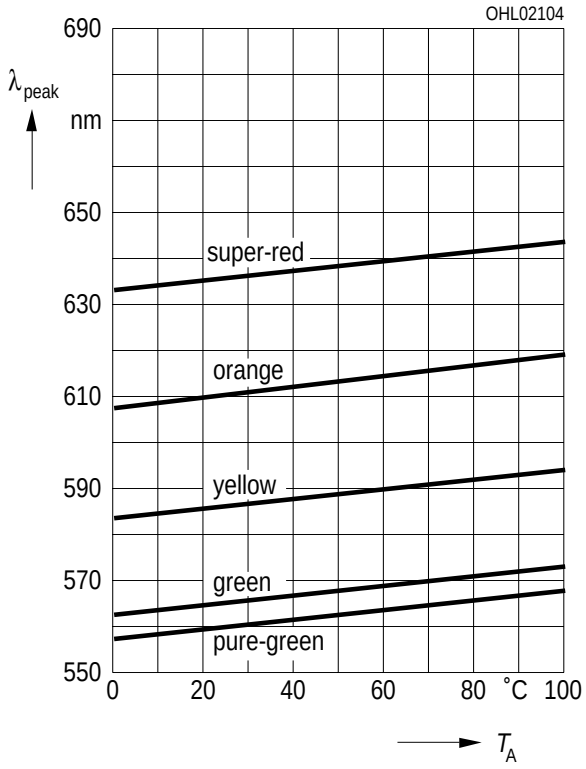
Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C



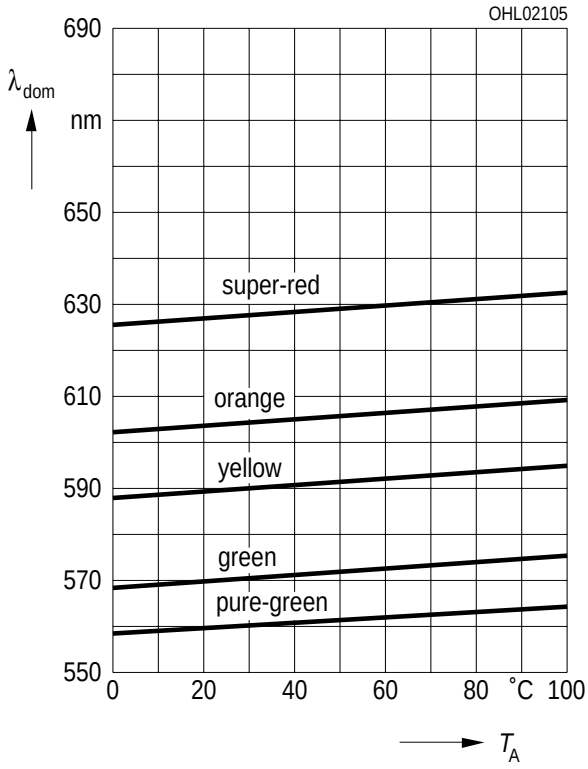
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



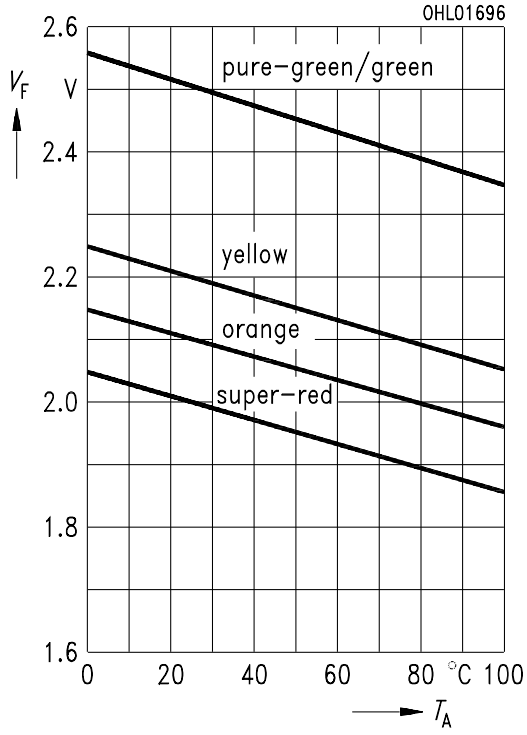
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 10 mA



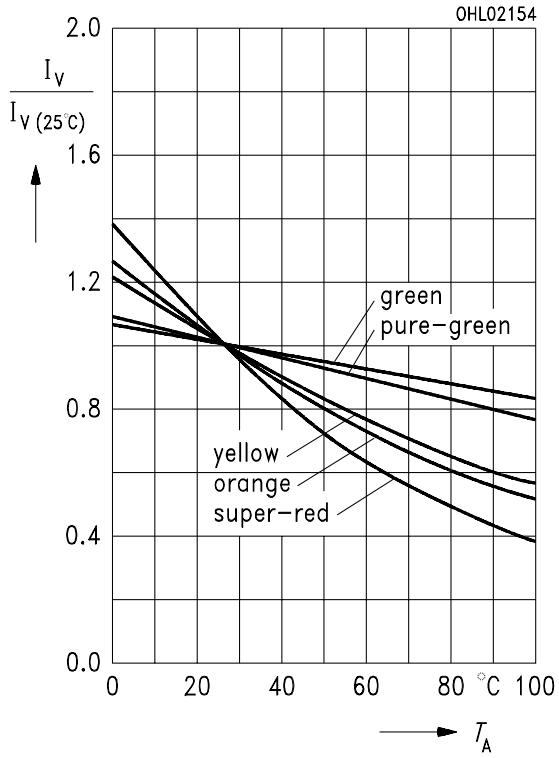
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominat wavelength
I_F = 10 mA



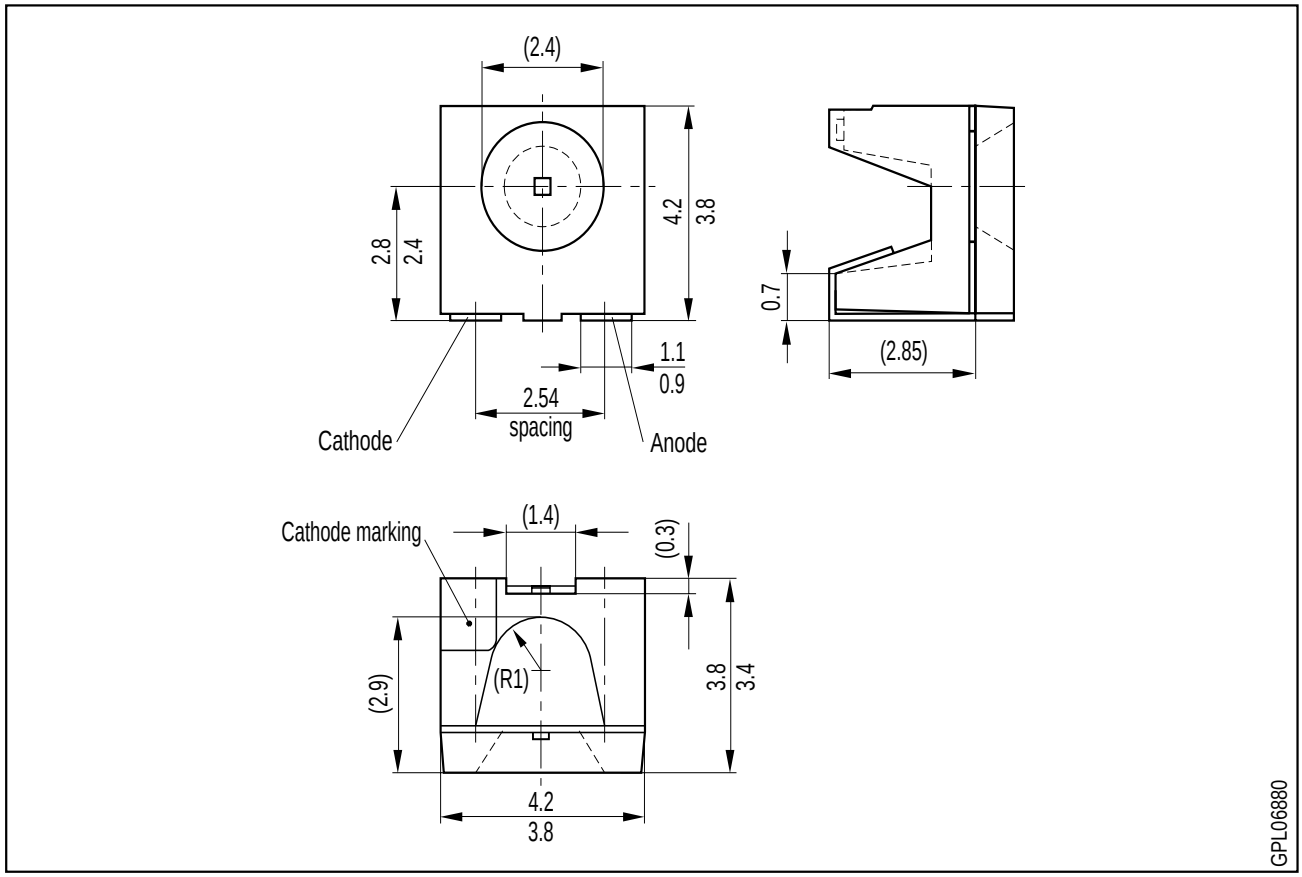
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 50 mA



Relative Lichtstärke $I_V / I_{V(25\,^\circ C)} = f(T_A)$
Relative luminous intensity
I_F = 50 mA



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



Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge