

**Super TOPLED®
High-Current LED**

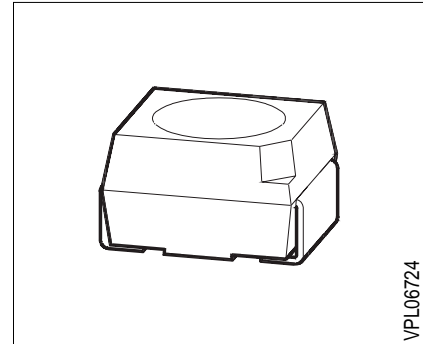
**LS T672, LO T672, LY T672
LG T672, LP T672**

Besondere Merkmale

- Gehäusebauform: P-LCC-2
- 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 Löttechniken geeignet
- gegurtet (8-mm-Filmgurt)
- Störimpulsfest nach DIN 40839

Features

- P-LCC-2 package
- 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 soldering methods
- available taped on reel (8 mm tape)
- load dump resistant acc. to DIN 40839



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Typ Type	Emissions- farbe Color of Emission	Farbe der Licht- austrittsfläche Color of the Light Emitting Area	Lichtstärke Luminous Intensity $I_F = 50 \text{ mA}$ I_V (mcd)	Lichtstrom Luminous Flux $I_F = 50 \text{ mA}$ Φ_V (mlm)	Bestellnummer Ordering Code
■ LS T672-LP	super-red	colorless clear	10 ... 80	-	Q62703-Q2334
■ LS T672-N			25 ... 50	100 (typ.)	Q62703-Q2513
■ LS T672-P			40 ... 80	180 (typ.)	Q62703-Q2514
■ LS T672-NR			25 ... 200	-	Q62703-Q2331
■ LO T672-MQ	orange	colorless clear	16 ... 125	-	Q62703-Q2623
■ LO T672-N			25 ... 50	100 (typ.)	Q62703-Q2494
■ LO T672-P			4 ... 80	180 (typ.)	Q62703-Q2493
■ LO T672-NR			25 ... 200	-	Q62703-Q2330
■ LY T672-LP	yellow	colorless clear	10 ... 80	-	Q62703-Q2624
■ LY T672-N			25 ... 50	100 (typ.)	Q62703-Q2515
■ LY T672-P			40 ... 80	180 (typ.)	Q62703-Q2516
■ LY T672-NR			25 ... 200	-	Q62703-Q2332
LG T672-MQ	green	colorless clear	16 ... 125	-	Q62703-Q2625
LG T672-N			25 ... 50	100 (typ.)	Q62703-Q2517
LG T672-P			40 ... 80	180 (typ.)	Q62703-Q2518
LG T672-Q			63 ... 125	300 (typ.)	Q62703-Q3081
LG T672-NR			25 ... 200	-	Q62703-Q3854
LP T672-KN	pure green	colorless clear	6.3 ... 50	-	Q62703-Q2626
LP T672-L			10.0 ... 20	45 (typ.)	Q62703-Q2627
LP T672-M			16.0 ... 32	75 (typ.)	Q62703-Q2289
LP T672-N			25.0 ... 50	100 (typ.)	Q62703-Q2290
LP T672-LP			10.0 ... 80	-	Q62703-Q2334

■ 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 $I_{V \max} / I_{V \min} \leq 2.0$.

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**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 $t \leq 10 \mu s, D = 0.005$	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 $\geq 16 \text{ mm}^2$) mounted on PC board*) (pad size 16 mm^2)	$R_{th JA}$	300	K/W

*) PC-board: FR4

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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.) $I_F = 10\text{ mA}$	λ_{peak}	635	610	586	565	557	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 10\text{ mA}$	λ_{dom}	628	605	590	570	560	nm
Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$ (typ.) Spectral bandwidth at 50 % $I_{\text{rel max}}$ (typ.) $I_F = 10\text{ mA}$	$\Delta\lambda$	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 (typ.) Forward voltage (max.) $I_F = 50\text{ mA}$	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 (typ.) Reverse current (max.) $V_R = 5\text{ V}$	I_R I_R	0.01 10	0.01 10	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	40	35	35	60	80	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	350 200	500 250	350 200	500 250	500 250	ns ns

*) $V_F \text{ max} = 3.2\text{ V}$ as of Febr. 97

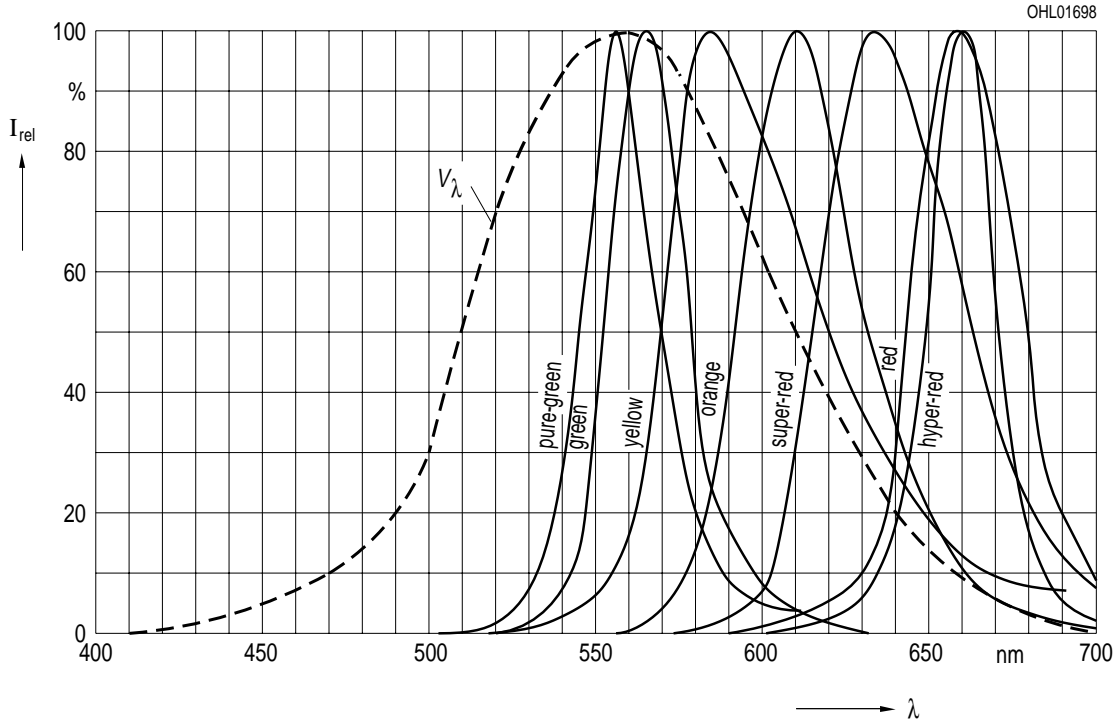
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Relative spektrale Emission $I_{rel} = f(\lambda)$, $T_A = 25\text{ }^\circ\text{C}$, $I_F = 10\text{ mA}$

Relative Spectral Emission

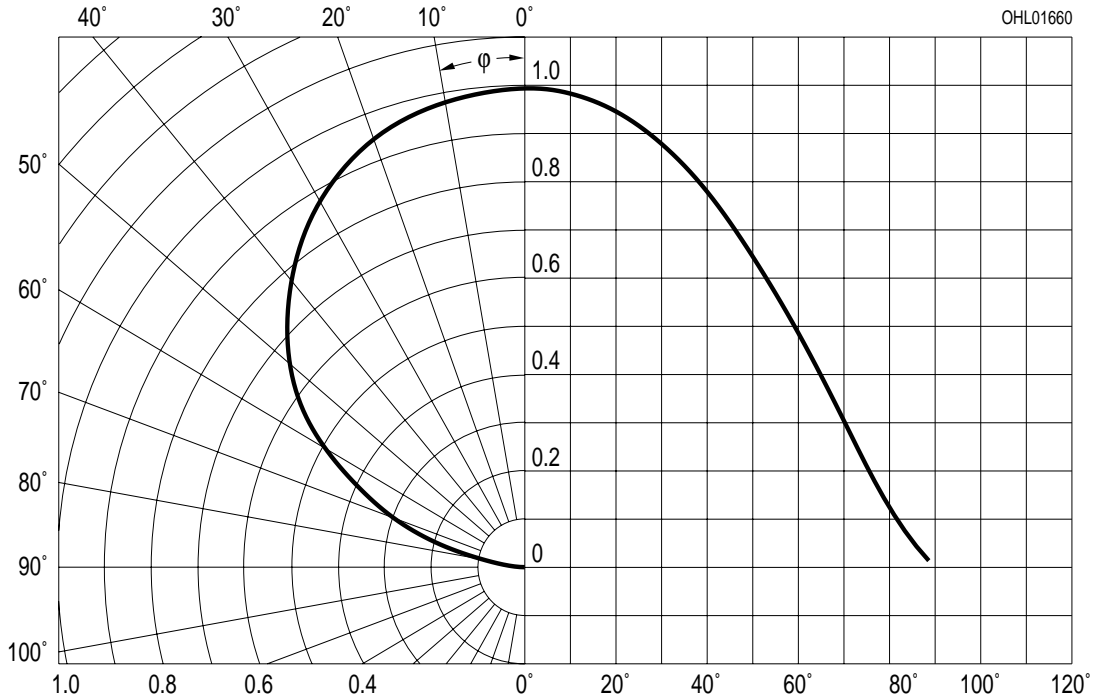
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



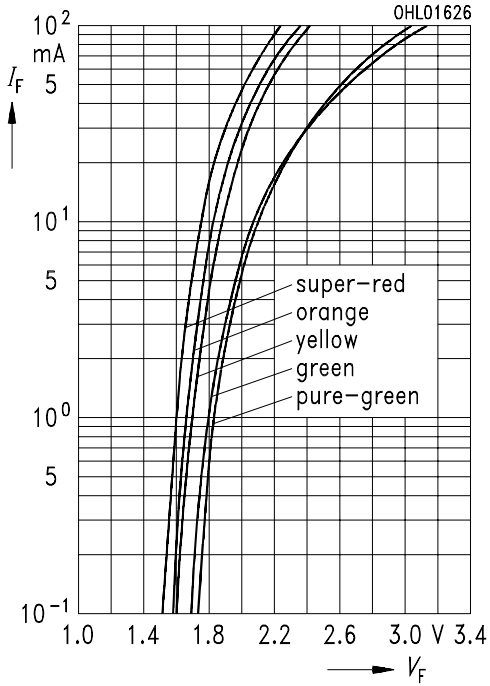
Abstrahlcharakteristik $I_{rel} = f(\varphi)$

Radiation characteristic

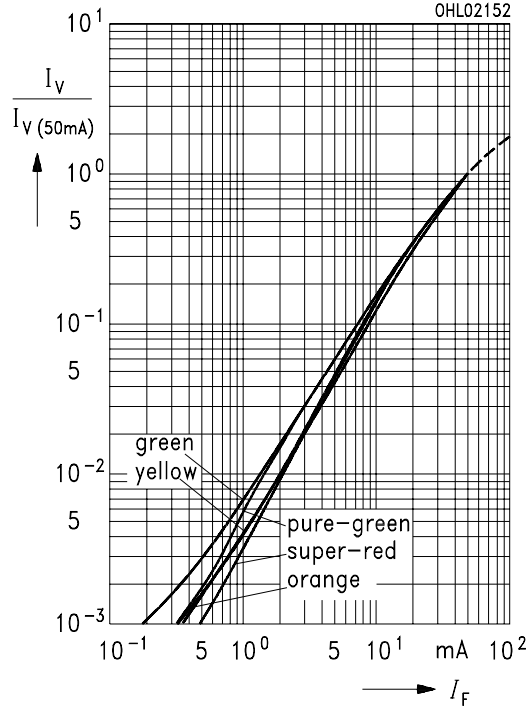


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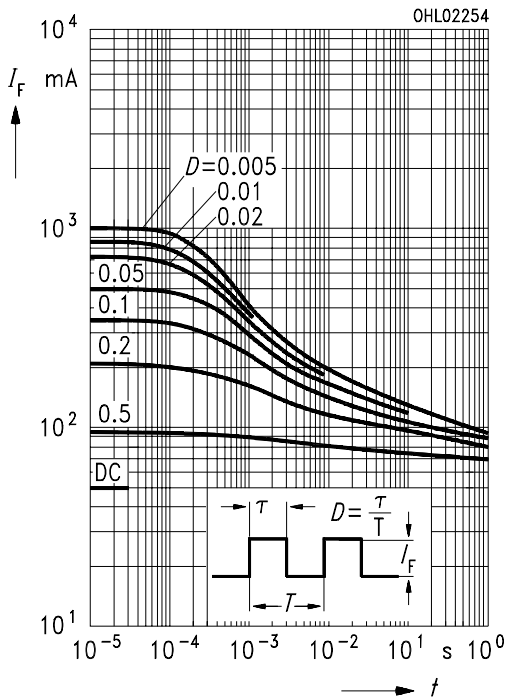
Durchlaßstrom $I_F = f(V_F)$
Forward current
 $T_A = 25^\circ\text{C}$



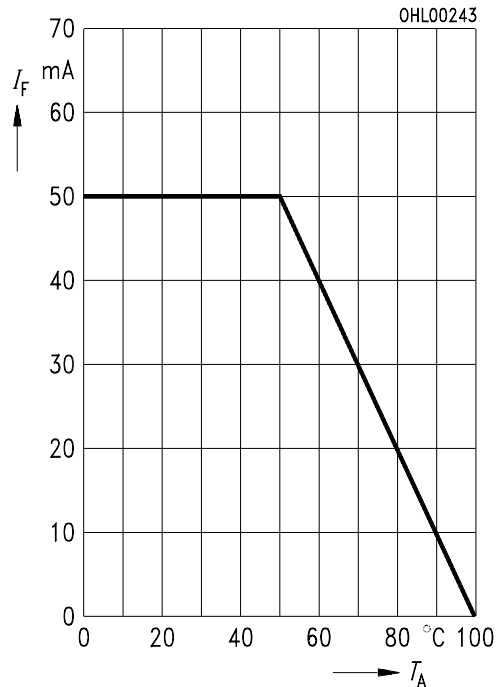
Relative Lichtstärke $I_V/I_{V(50\text{ mA})} = f(I_F)$
Relative luminous intensity
 $T_A = 25^\circ\text{C}$



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
 Duty cycle $D = \text{parameter}$, $T_A = 25^\circ\text{C}$



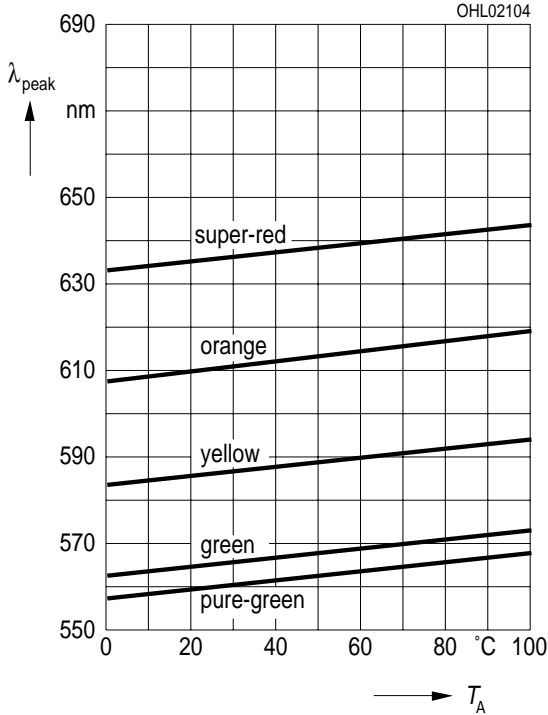
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
 $I_F = f(T_A)$



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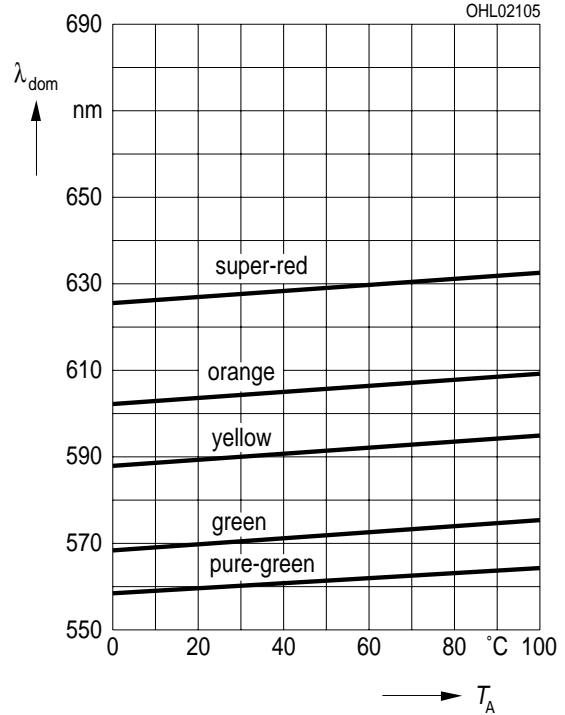
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$
Wavelength at peak emission

$I_F = 10 \text{ mA}$



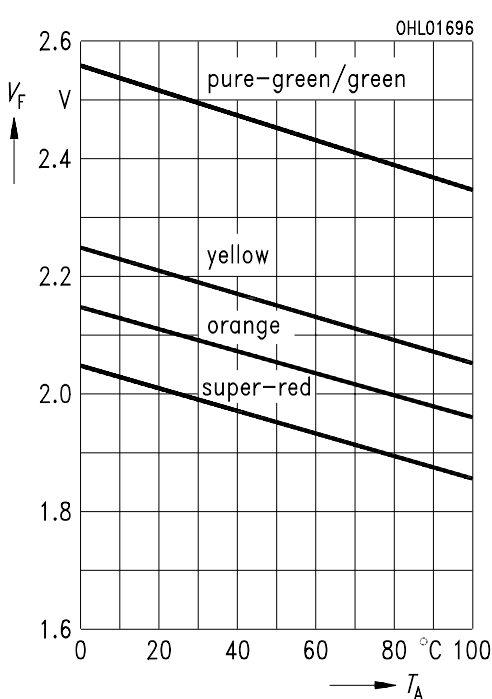
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$
Dominant wavelength

$I_F = 10 \text{ mA}$



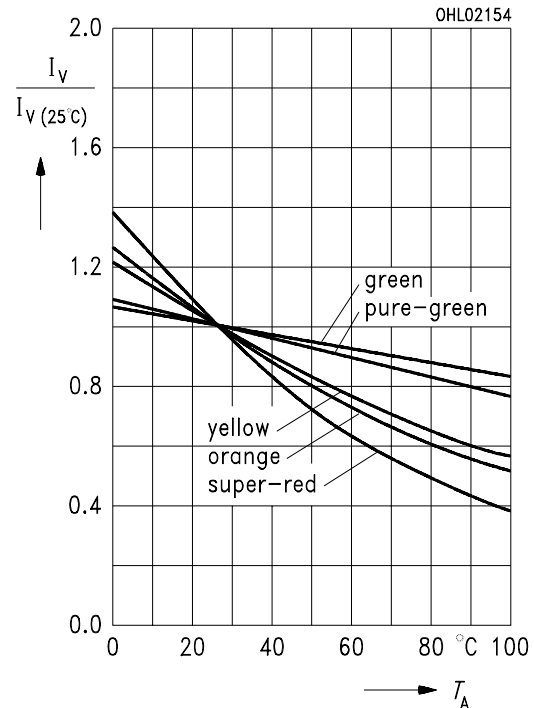
Durchlaßspannung $V_F = f(T_A)$
Forward voltage

$I_F = 50 \text{ mA}$



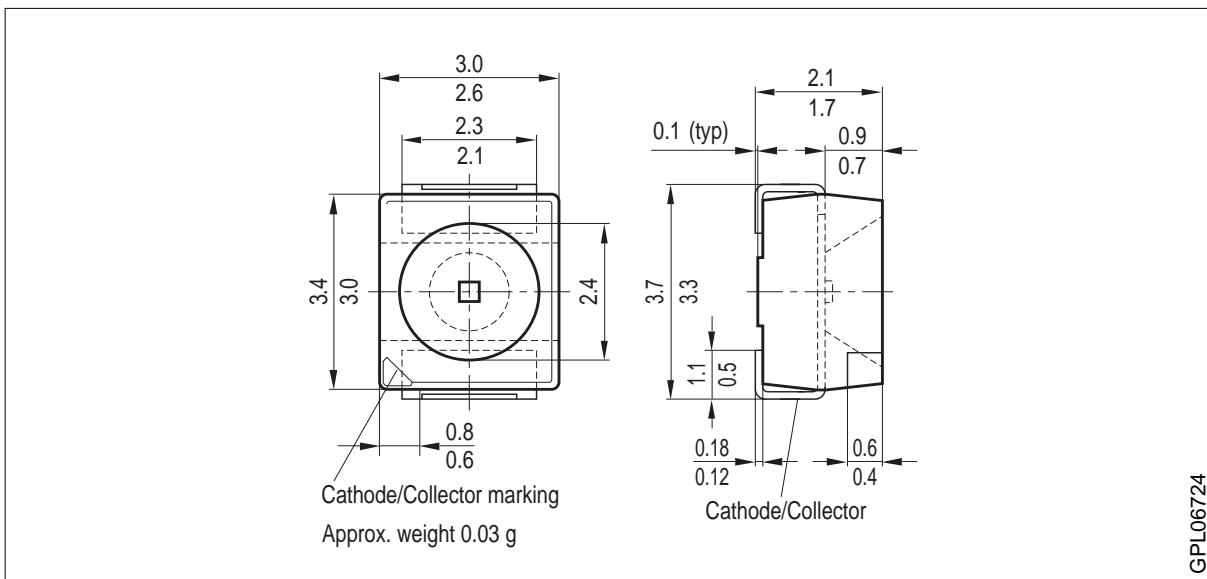
Relative Lichtstärke $I_V / I_{V(25^\circ\text{C})} = f(T_A)$
Relative luminous intensity

$I_F = 50 \text{ mA}$



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



Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge