

LC TOPLED® Low Current LED

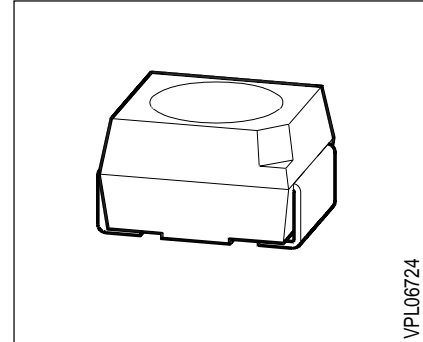
LS T679, LY T679, LG T679

Besondere Merkmale

- Gehäusebauform: P-LCC-2
- Gehäusefarbe: weiß
- als optischer Indikator einsetzbar
- zur Hinterleuchtung, Lichtleiter- und Linseneinkopplung
- für alle SMT-Bestück- und Löttechniken geeignet
- gegurtet (8-mm-Filmgurt)

Features

- P-LCC-2 package
- color of package: white
- for use as optical indicator
- for backlighting, optical coupling into light pipes and lenses
- suitable for all SMT assembly and soldering methods
- available taped on reel (8 mm tape)



Typ	Emissions- farbe	Farbe der Lichtaustritts- fläche	Lichtstärke	Lichtstrom	Bestellnummer
Type	Color of Emission	Color of the Light Emitting Area	Luminous Intensity $I_F = 2 \text{ mA}$ $I_V(\text{mcd})$	Luminous Flux $I_F = 2 \text{ mA}$ $\Phi_V(\text{mlm})$	Ordering Code
LS T679-CO	super-red	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2383
LY T679-CO	yellow	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2384
LG T679-CO	green	colorless clear	≥ 0.25 (1.0 typ.)	3.0 (typ.)	Q62703-Q2385

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}	0.15	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation	P_{tot}	20	mW
Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air Montage auf PC-Board (Padgröße $\geq 16 \text{ mm}^2$) mounted on PC board (pad size $\geq 16 \text{ mm}^2$)	$R_{th JA}$	500	K/W

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

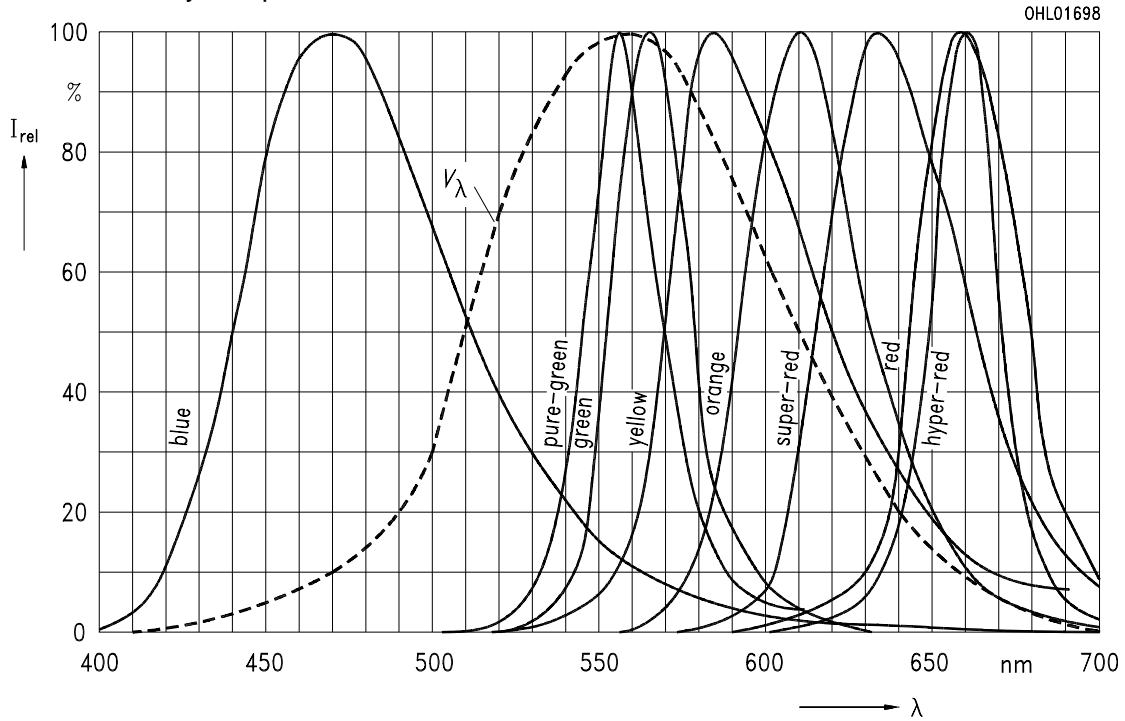
Bezeichnung Parameter	Symbol Symbol	Werte Values			Einheit Unit
		LS	LY	LG	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 7.5\text{ mA}$	λ_{peak}	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 7.5\text{ mA}$	λ_{dom}	628	590	570	nm
Spektrale 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	120	120	120	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 $I_{rel} = f(\lambda)$, $T_A = 25\text{ }^\circ\text{C}$, $I_F = 7.5\text{ mA}$

Relative spectral emission

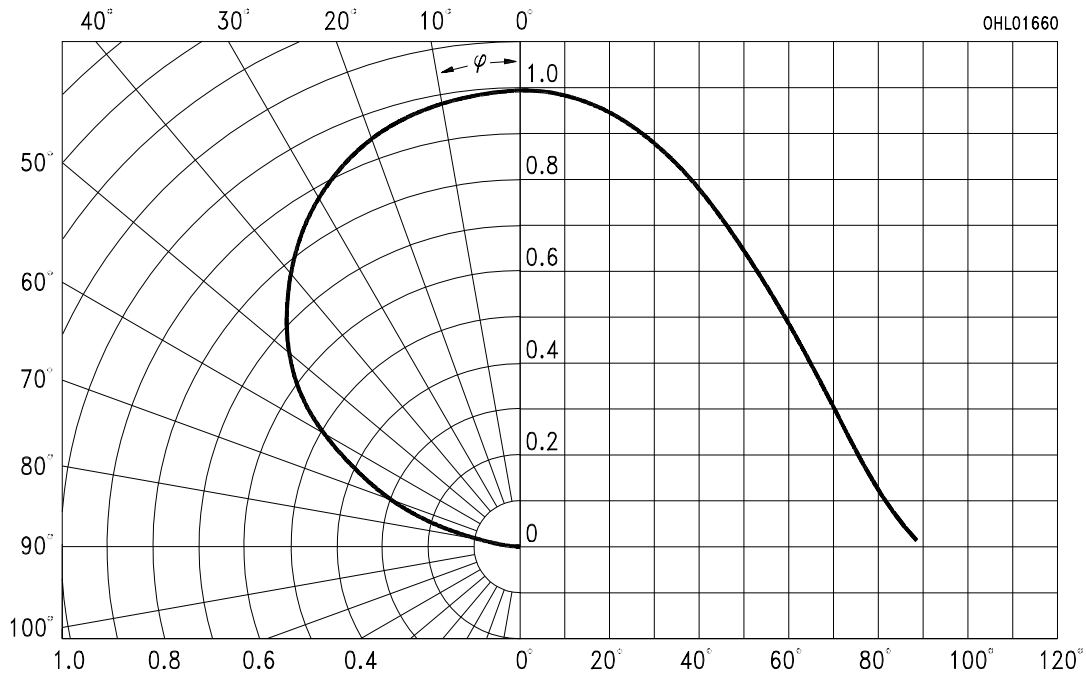
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve

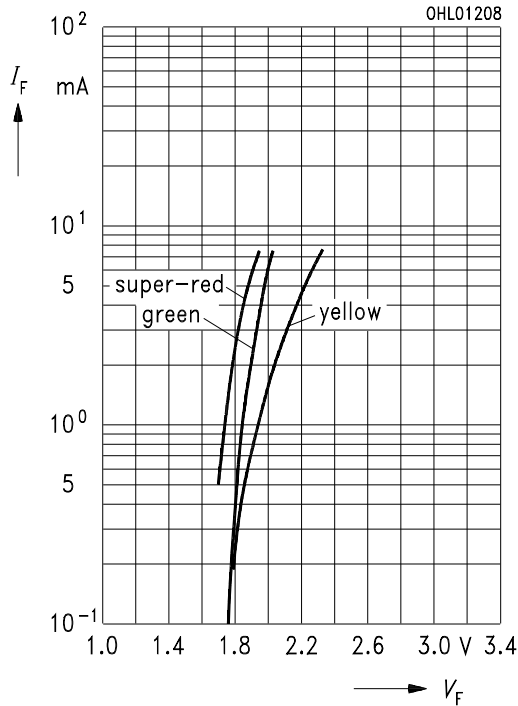


Abstrahlcharakteristik $I_{rel} = f(\varphi)$

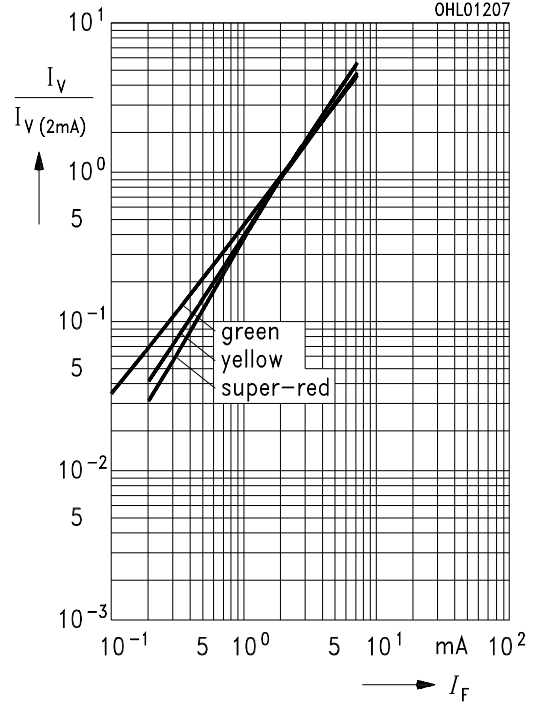
Radiation characteristic



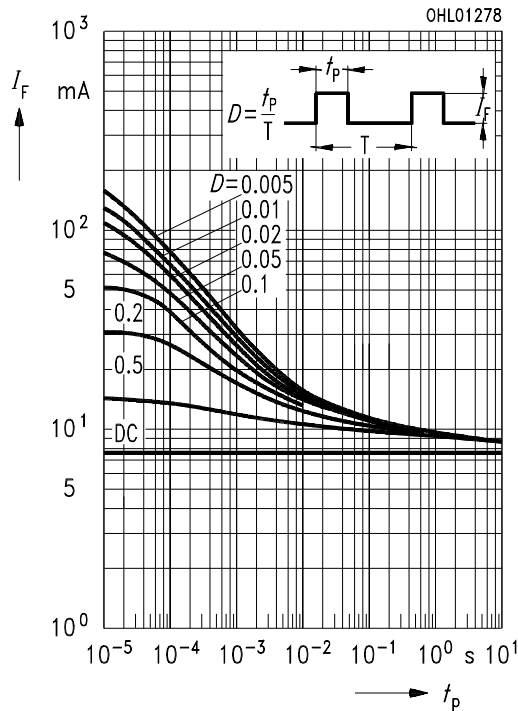
Durchlaßstrom $I_F = f(V_F)$
Forward current
 $T_A = 25\text{ °C}$



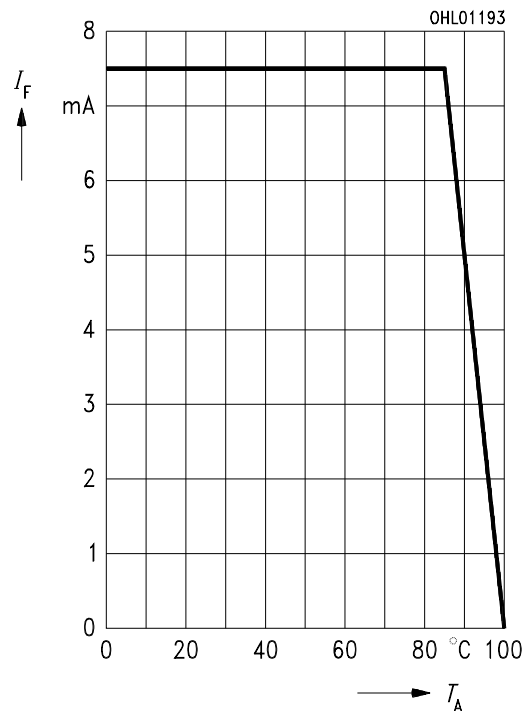
Relative Lichtstärke $I_V / I_{V(2\text{ mA})} = f(I_F)$
Relative luminous intensity
 $T_A = 25\text{ °C}$



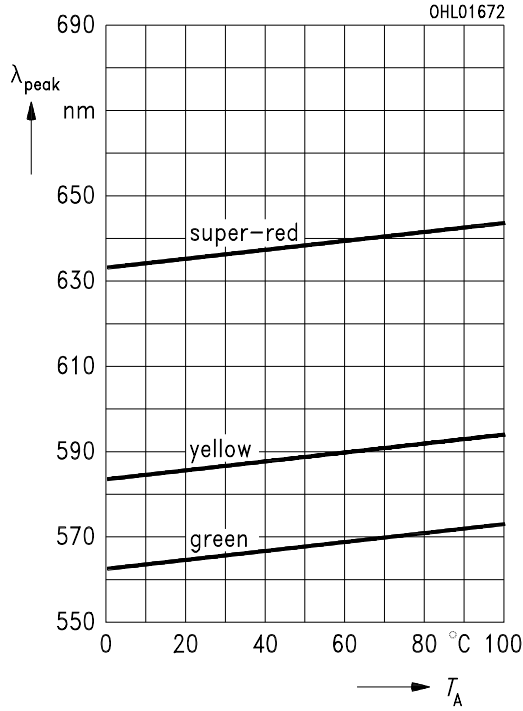
Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
 Duty cycle $D = \text{parameter}$, $T_A = 25\text{ °C}$



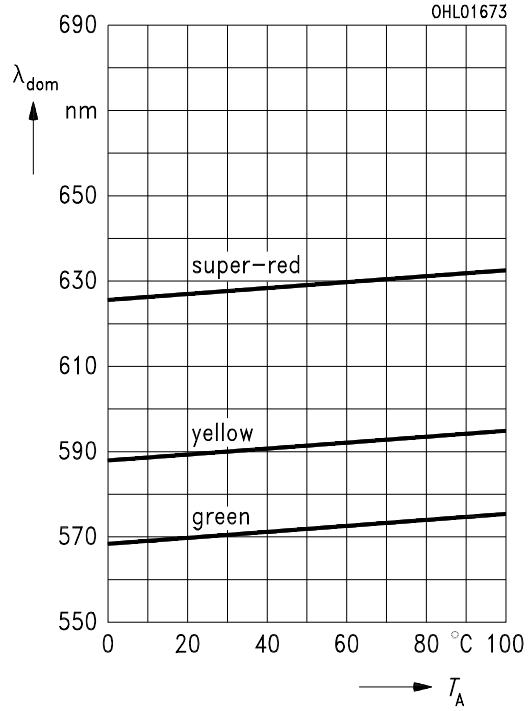
Maximal zulässiger Durchlaßstrom $I_F = f(T_A)$
Max. permissible forward current



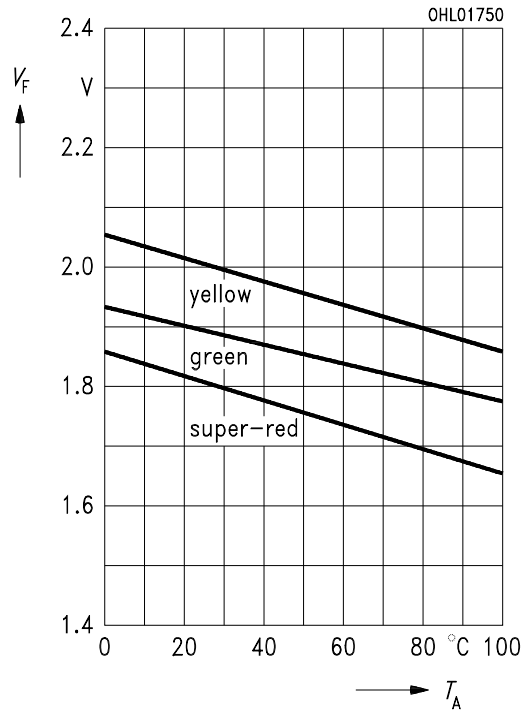
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$
Wavelength at peak emission
 $I_F = 7.5 \text{ mA}$



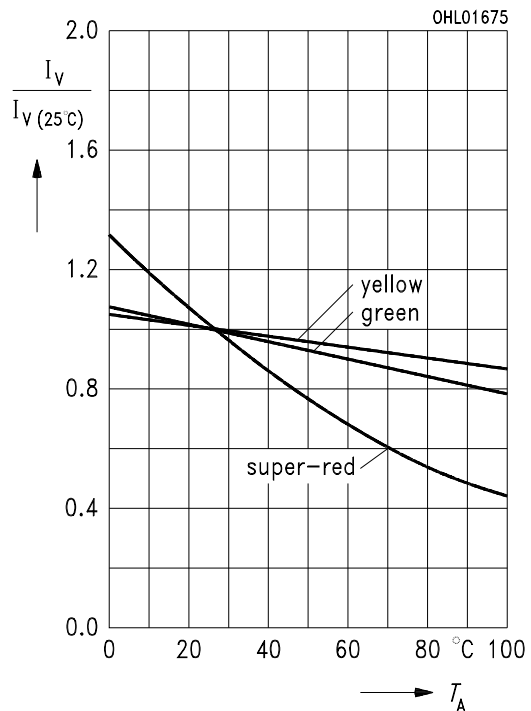
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$
Dominant wavelength
 $I_F = 7.5 \text{ mA}$



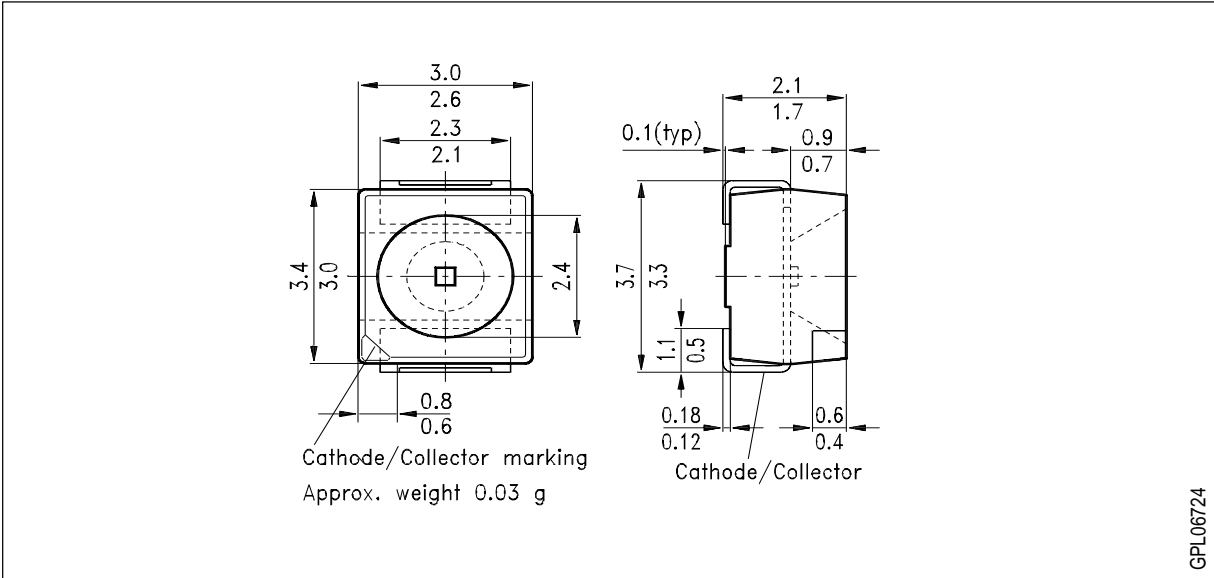
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
 $I_F = 2 \text{ mA}$



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)



Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge