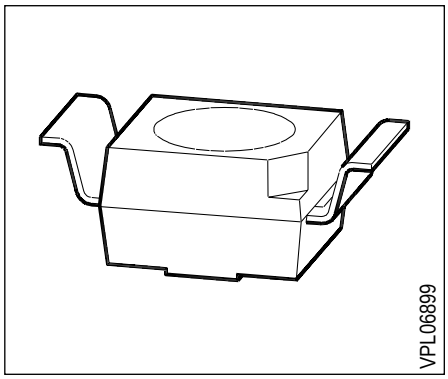
SIEMENS

Hyper TOPLED® RG
Hyper-Bright LED

LS T776, LA T776, LO T776
LY T776



Besondere Merkmale

- Gehäusefarbe: weiß
- als optischer Indikator einsetzbar
- zur Hinterleuchtung, Lichtleiter- und Linseneinkopplung
- für alle SMT-Bestück- und Löttechniken geeignet
- gegurtet (12-mm-Filmgurt)

Features

- 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 (12 mm tape)

Typ Type	Emissions-farbe Color of Emission	Farbe der Lichtaustritts-fläche Color of the Light Emitting Area	Lichtstärke Luminous Intensity I_F = 20 mA I_V (mcd)	Lichtstrom Luminous Flux I_F = 20 mA Φ_V (mlm)	Bestellnummer Ordering Code
LS T776-NR	super-red	colorless clear	25 … 200	-	Q62703-Q3270
LS T776-P			40 … 80	180 (typ.)	Q62703-Q3271
LS T776-Q			63 … 125	300 (typ.)	Q62703-Q3272
LS T776-R			100 … 200	450 (typ.)	Q62703-Q3273
LS T776-PS			40 … 320	-	Q62703-Q3274
LA T776-PS	amber	colorless clear	40 … 320	-	Q62703-Q3914
LA T776-Q			63 … 125	300 (typ.)	Q62703-Q3915
LA T776-R			100 … 200	450 (typ.)	Q62703-Q3916
LA T776-S			160 … 320	700 (typ.)	Q62703-Q3917
LA T776-QT			63 … 500	-	Q62703-Q3918
LO T776-PS	orange	colorless clear	40 … 320	-	Q62703-Q3275
LO T776-Q			63 … 125	300 (typ.)	Q62703-Q3276
LO T776-R			100 … 200	450 (typ.)	Q62703-Q3277
LO T776-S			160 … 320	700 (typ.)	Q62703-Q3278
LO T776-QT			63 … 500	-	Q62703-Q3279
LY T776-PS	yellow	colorless clear	40 … 320	-	Q62703-Q3280
LY T776-Q			63 … 125	300 (typ.)	Q62703-Q3281
LY T776-R			100 … 200	450 (typ.)	Q62703-Q3282
LY T776-S			160 … 320	700 (typ.)	Q62703-Q3283
LY T776-QT			63 … 500	-	Q62703-Q3284

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**
		LS, LO, LA	**LY**	
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	30	20	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	1	0.2	A
Sperrspanung[1)] Reverse voltage[1)]	V_R	3		V
Verlustleistung Power dissipation	P_{tot}	80	55	mW
Wärmewiderstand Thermal resistance Sperrschicht / Umgebung Junction / air Montage auf PC-board*) (Padgröße ≥ 16 mm^2) mounted on PC board*) (pad size ≥ 16 mm^2)	$R_{th\ JA}$	500		K/W

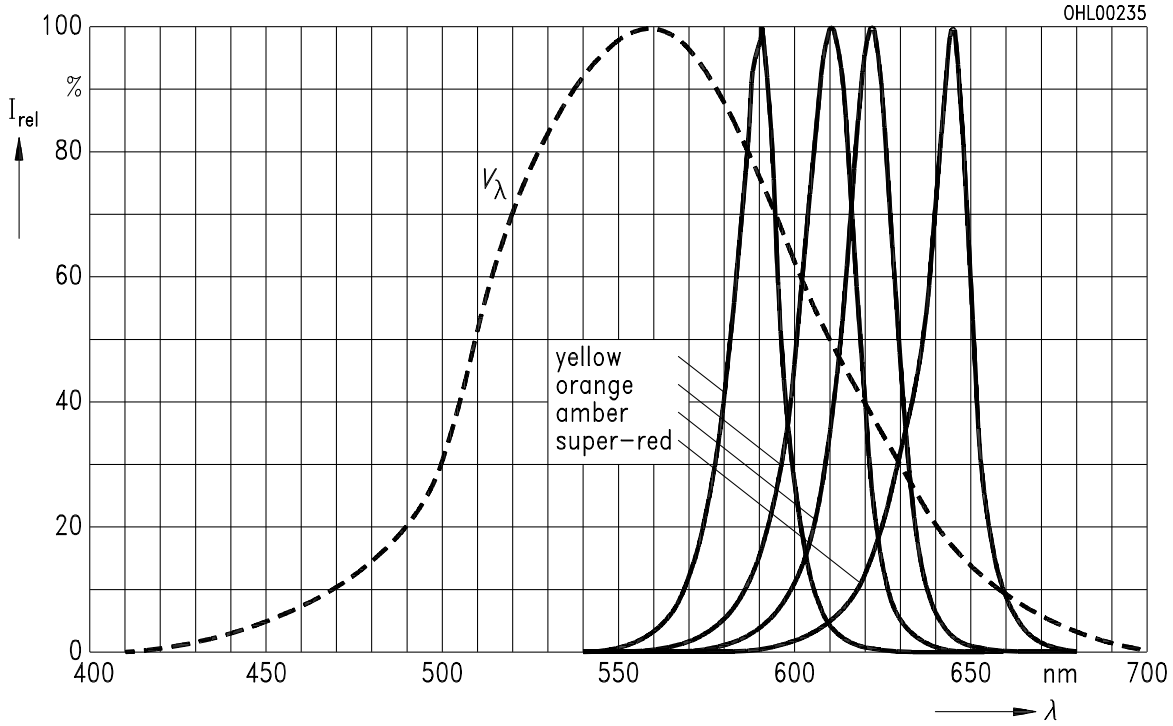
1) Belastung in Sperrichtung sollte vermieden werden.
1) Reverse biasing should be avoided.

*) PC-board: FR4

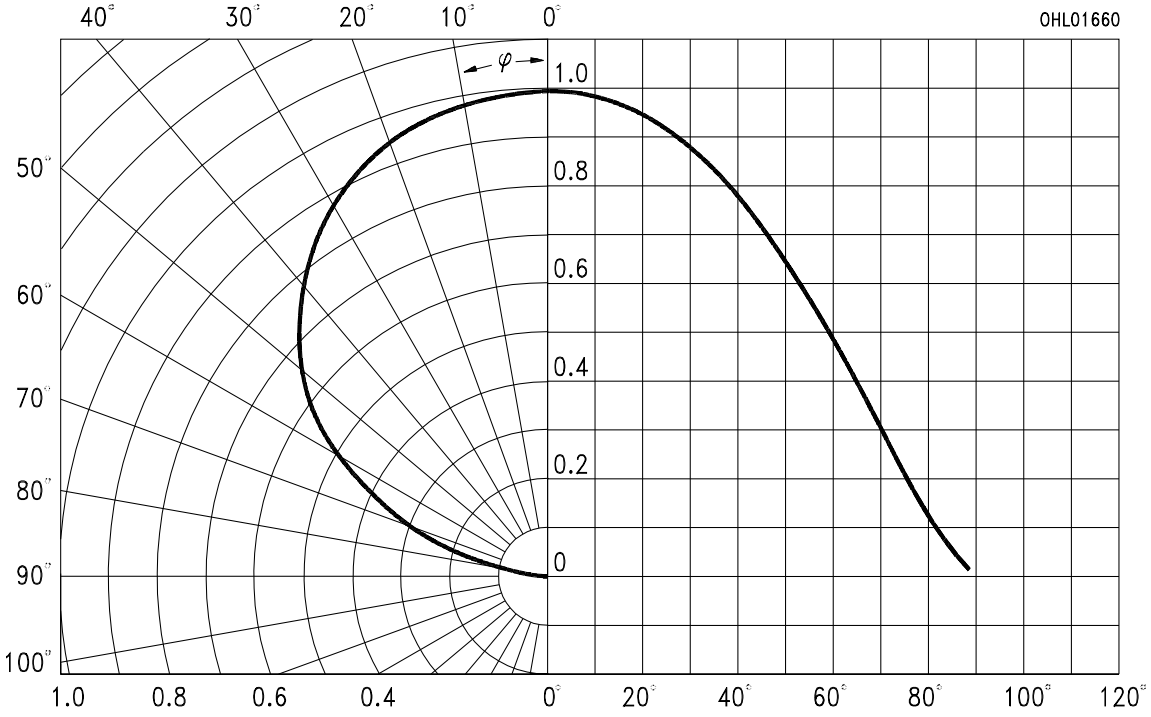
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
		LS	**LA**	**LO**	**LY**	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 20 mA	λ_{peak}	645	622	610	591	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 20 mA	λ_{dom}	632	615	605	587	nm
Spektrale Bandbreite bei 50% $I_{rel\ max}$ (typ.) Spectral bandwidth at 50% $I_{rel\ max}$ (typ.) I_F = 20 mA	$\Delta\lambda$	16	16	16	15	nm
Abstrahlwinkel bei 50% I_v (Vollwinkel) Viewing angle at 50% I_v	2φ	120	120	120	120	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 20 mA	V_F V_F	2.0 2.6	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom (typ.) Reverse current (max.) V_R = 3 V	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Temperaturkoeffizient von λ_{dom} (I_F = 20 mA) Temperature coefficient of λ_{dom} (I_F = 20 mA)	TC_λ	0.014	0.062	0.067	0.096	nm/K
Temperaturkoeffizient von λ_{peak}, I_F = 20 mA (typ.) Temperature coefficient of λ_{peak}, I_F = 20 mA (typ.)	TC_λ	0.14	0.13	0.13	0.13	nm/K
Temperaturkoeffizient von V_F, I_F = 20 mA (typ.) Temperature coefficient of V_F, I_F = 20 mA (typ.)	TC_V	– 1.95	– 1.78	– 1.67	– 2.51	mV/K

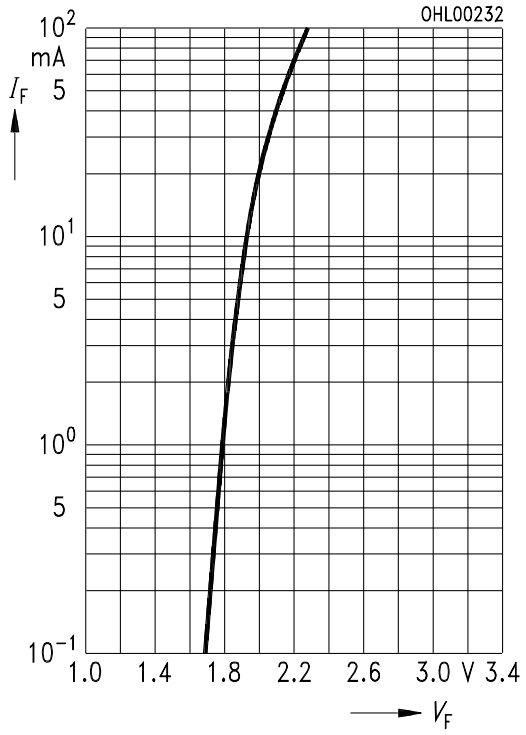
Relative spektrale Emission $I_{rel} = f(\lambda)$, $T_A = 25$ °C, $I_F = 10$ mA
Relative spectral emission
V(λ) = spektrale Augenempfindlichkeit
Standard eye response curve



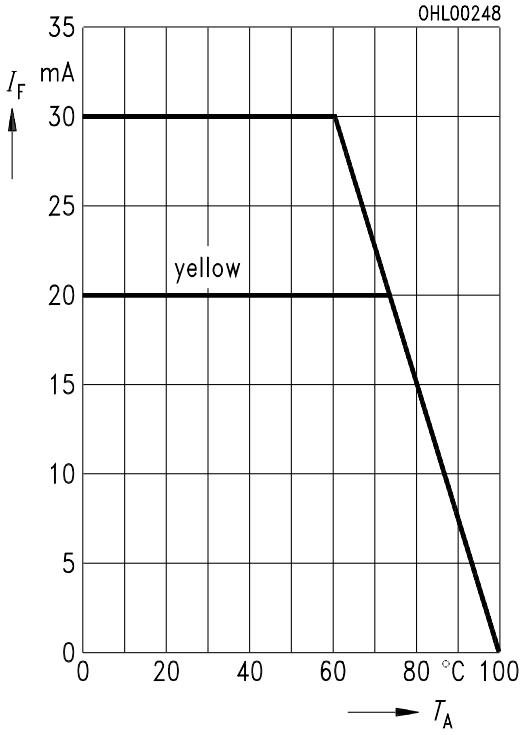
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



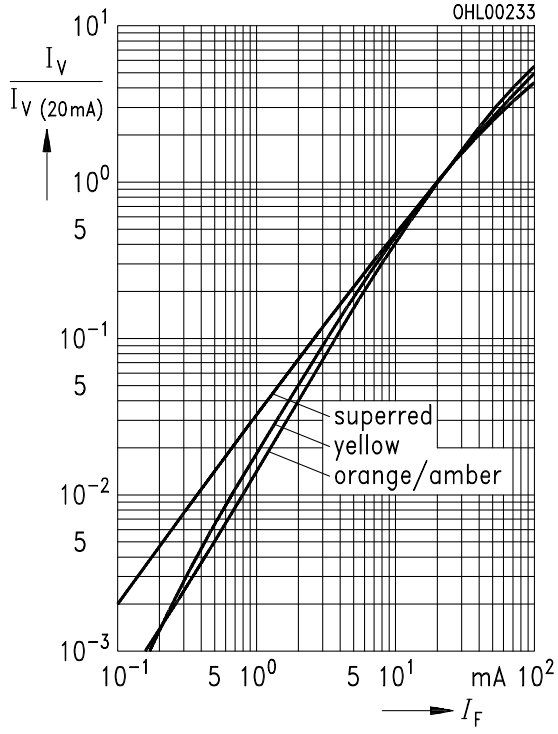
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 °C



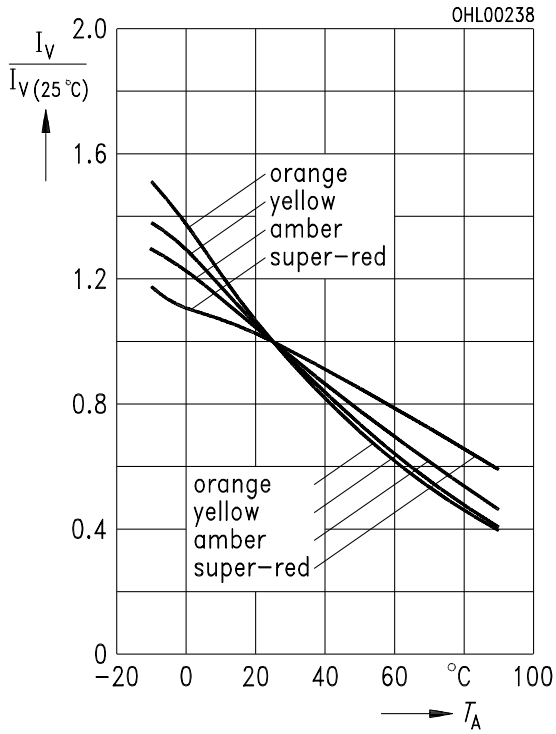
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



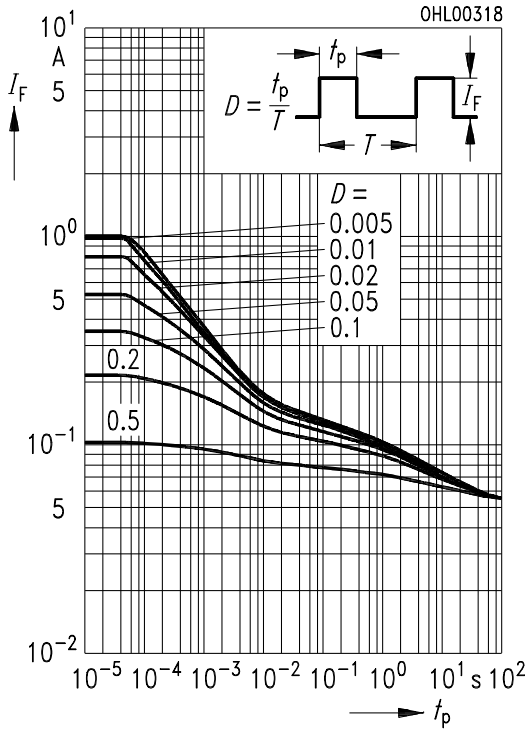
Relative Lichtstärke $I_V/I_{V(20\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25°C



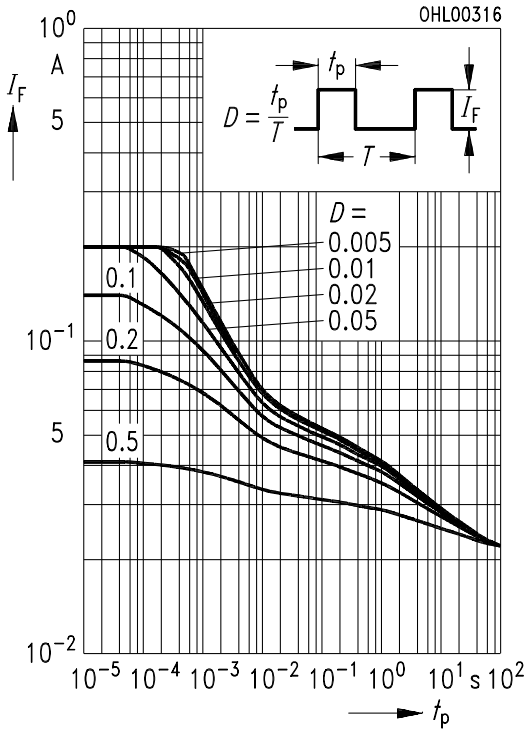
Relative Lichtstärke $I_V / I_{V(25°C)} = f(T_A)$
Relative luminous intensity
I_F = 20 mA



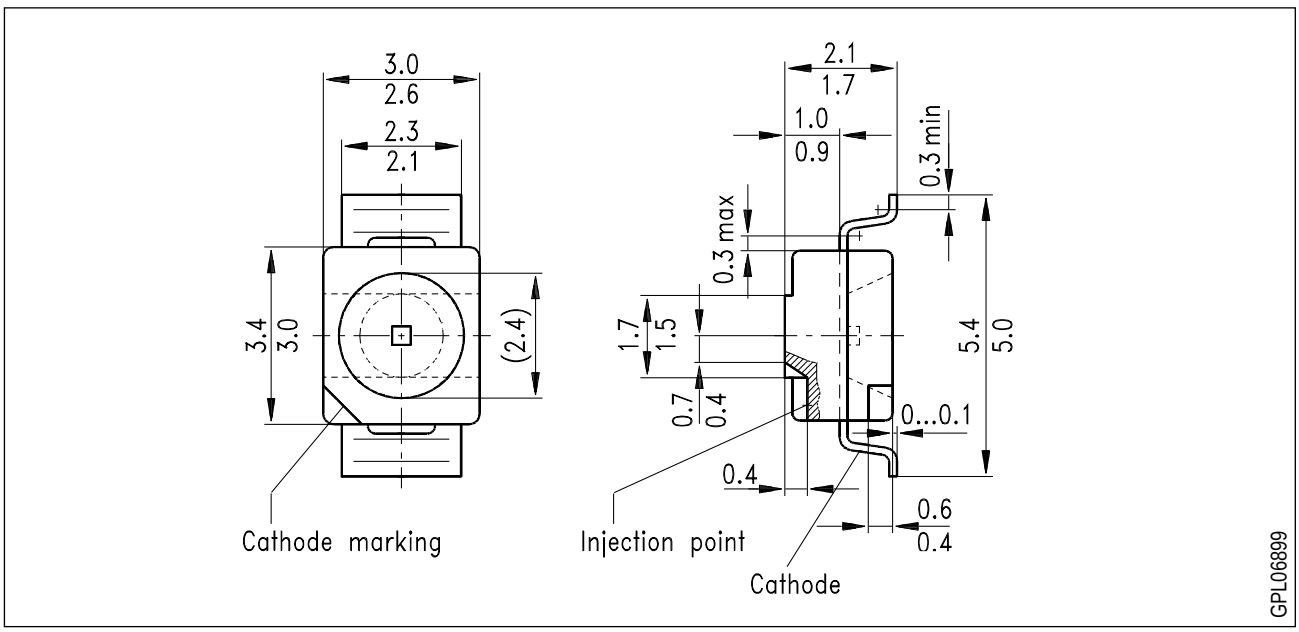
Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
LS, LA, LO
Duty cycle D = parameter, T_A = 25 ˚C



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



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



Kathodenkennung: abgeschrägte Ecke
Cathode mark: bevelled edge