

3 mm (T1 3/4) LED, Diffused Wide-Angle LED

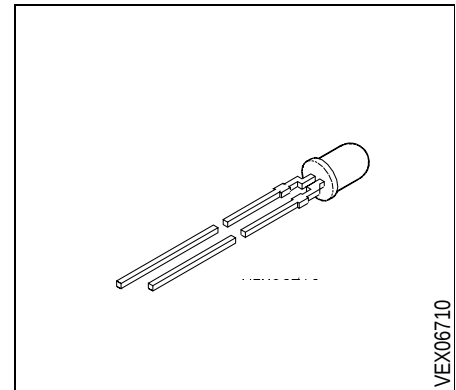
LS 3380, LY 3380, LG 3380

Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- als optischer Indikator einsetzbar
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

Features

- colored, diffused package
- for use as optical indicator
- solder leads with 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 $I_F = 10 \text{ mA}$ $I_V \text{ (mcd)}$	Bestellnummer Ordering Code
LS 3380-GK LS 3380-H LS 3380-J LS 3380-K LS 3380-HL	super-red	red diffused	1.6 ... 12.5 2.5 ... 5.0 4.0 ... 8.0 6.3 ... 12.5 2.5 ... 20.0	Q62703-Q2629 Q62703-Q1726 Q62703-Q1349 Q62703-Q3824 Q62703-Q2630
LY 3380-GK LY 3380-H LY 3380-J LY 3380-K LY 3380-HL	yellow	yellow diffused	1.6 ... 12.5 2.5 ... 5.0 4.0 ... 8.0 6.3 ... 12.5 2.5 ... 20.0	Q62703-Q1352 Q62703-Q1353 Q62703-Q1354 Q62703-Q2317 Q62703-Q1355
LG 3380-GK LG 3380-J LG 3380-K LG 3380-JL	green	green diffused	1.6 ... 12.5 4.0 ... 8.0 6.3 ... 12.5 4.0 ... 20.0	Q62703-Q1356 Q62703-Q2318 Q62703-Q2631 Q62703-Q3910

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	40	mA
Stoßstrom Surge current $t \leq 10 \mu s$, $D = 0.005$	I_{FM}	0.5	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25 \text{ °C}$	P_{tot}	140	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th JA}$	400	K/W

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

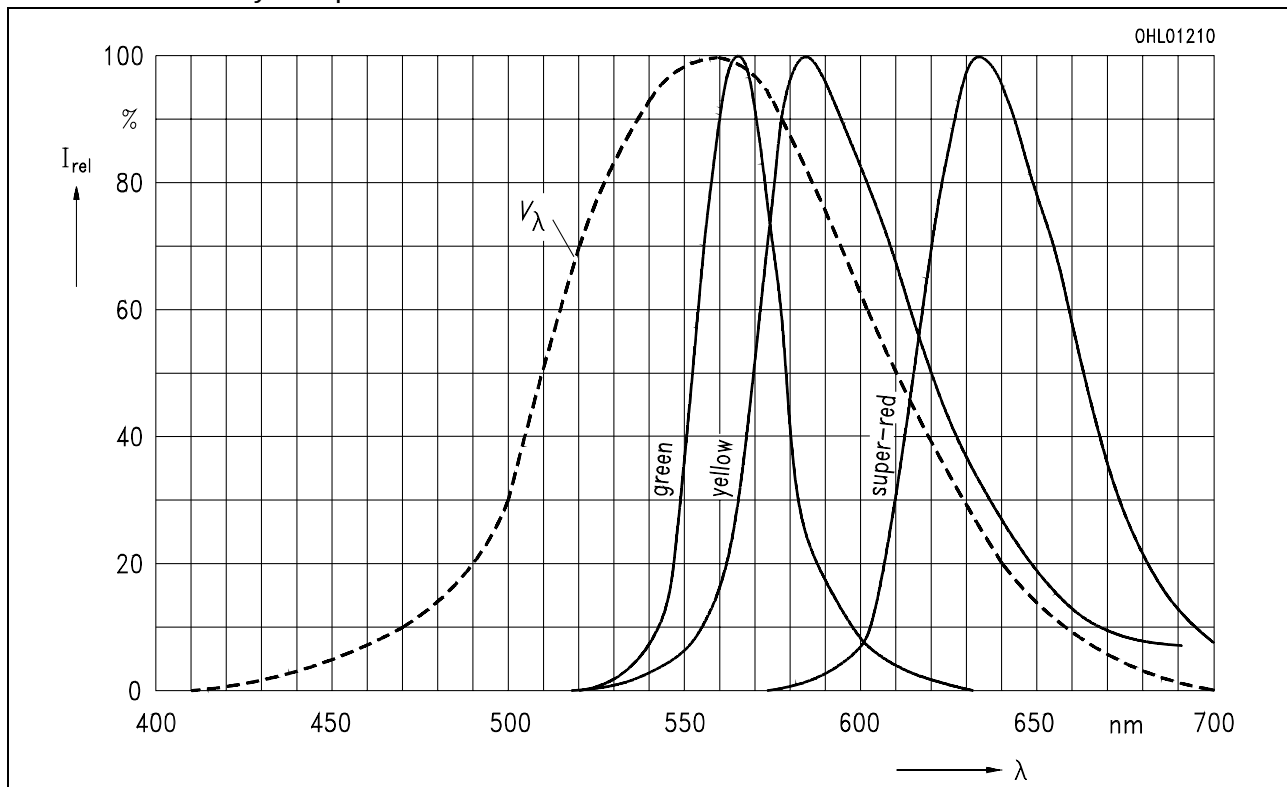
Bezeichnung Parameter	Symbol Symbol	Werte Values			Einheit Unit
		LS	LY	LG	
Wellenlänge des emittierten Lichtes(typ.) Wavelength at peak emission(typ.) $I_F = 20\text{ mA}$	λ_{peak}	635	586	565	nm
Dominantwellenlänge(typ.) Dominant wavelength(typ.) $I_F = 20\text{ mA}$	λ_{dom}	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$ (typ.) Spectral bandwidth at 50 % $I_{\text{rel max}}$ (typ.) $I_F = 20\text{ mA}$	$\Delta\lambda$	45	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2ϕ	100	100	100	deg.
Durchlaßspannung(typ.) Forward voltage(max.) $I_F = 10\text{ mA}$	V_F V_F	2.0 2.6	2.0 2.6	2.0 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	12	10	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	300 150	300 150	450 200	ns ns

Relative spektrale Emission $I_{\text{rel}} = f(\lambda)$, $T_A = 25^\circ\text{C}$, $I_F = 20\text{ mA}$

Relative spectral emission

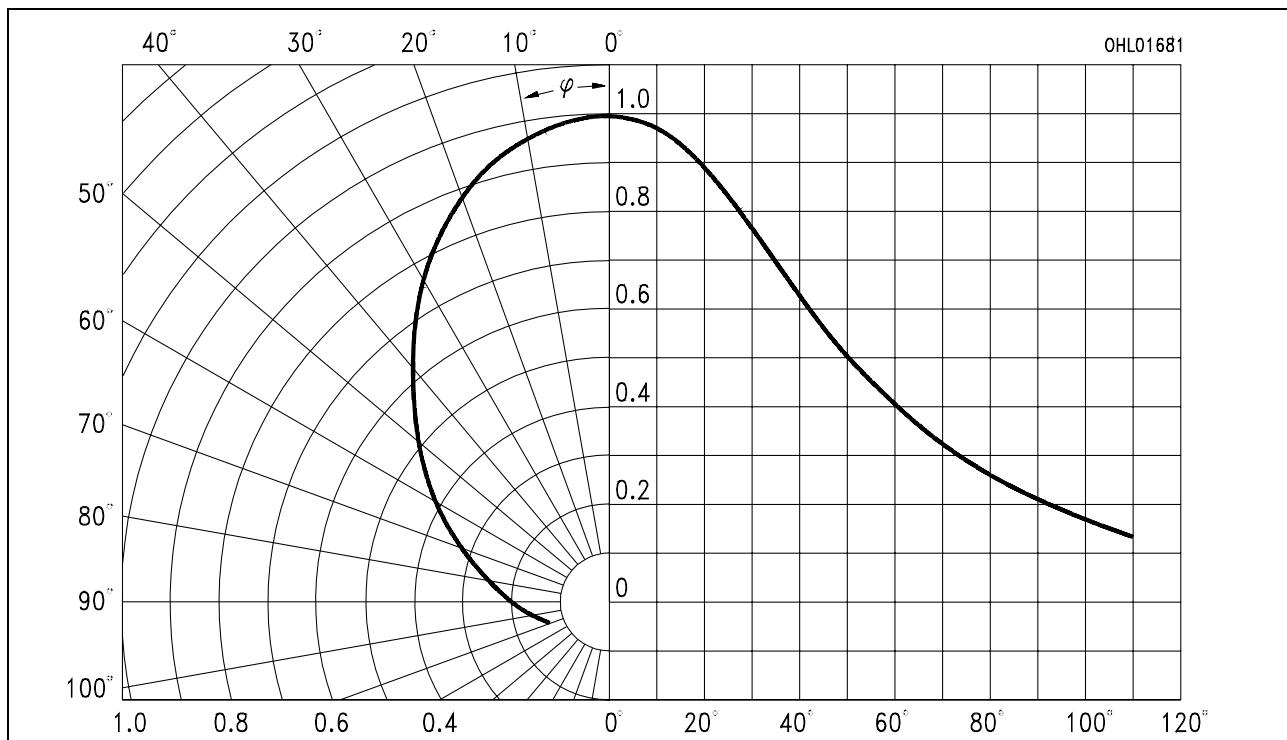
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



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

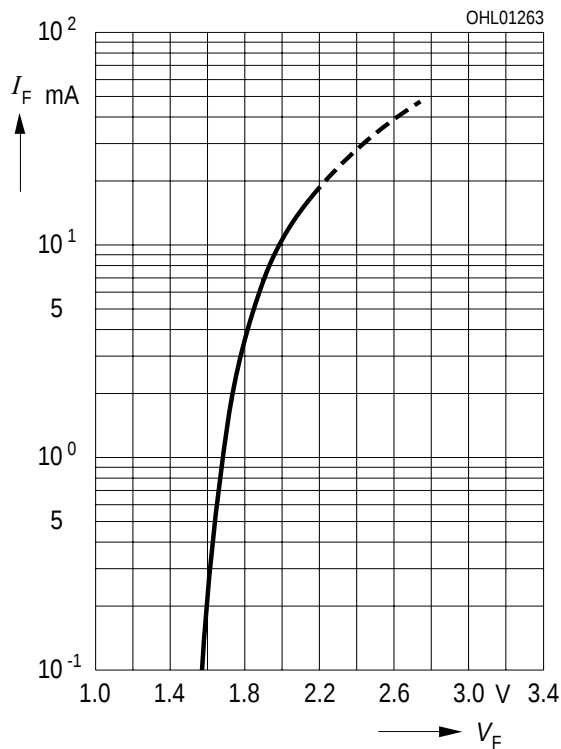
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

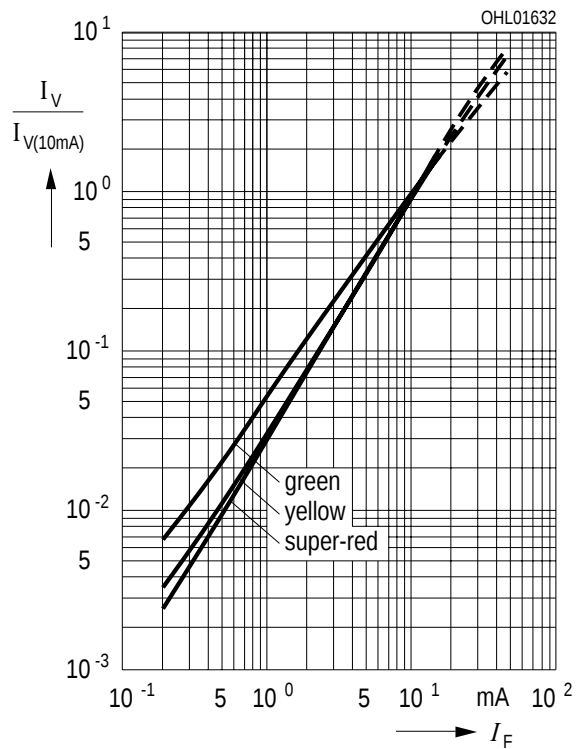
$T_A = 25^\circ\text{C}$



Relative Lichtstärke $I_V/I_{V(10\text{ mA})} = f(I_F)$

Relative luminous intensity

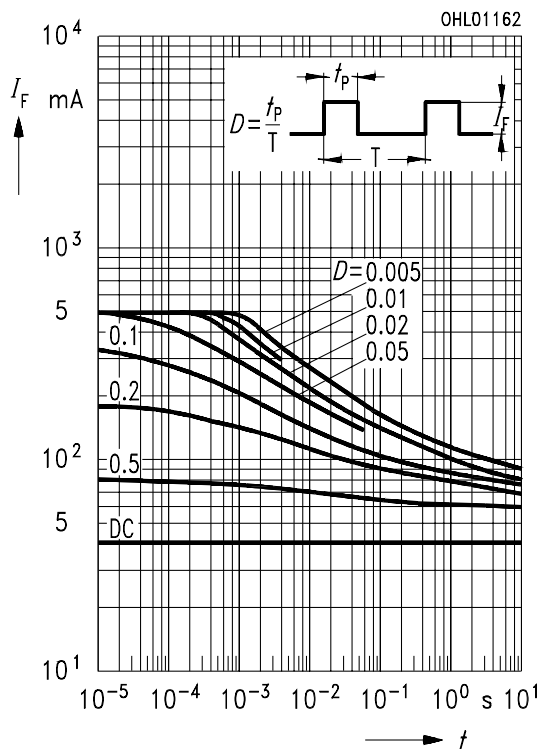
$T_A = 25^\circ\text{C}$



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

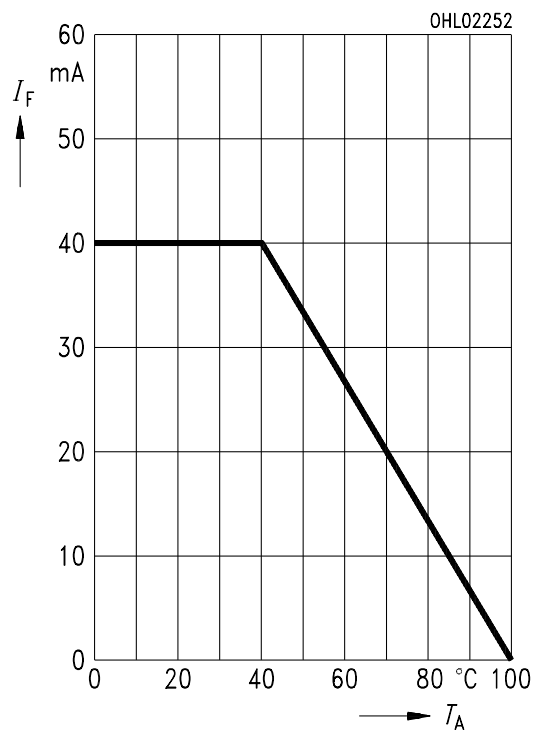
Duty cycle $D = \text{parameter}$, $T_A = 25^\circ\text{C}$



Maximal zulässiger Durchlaßstrom

Max. permissible forward current

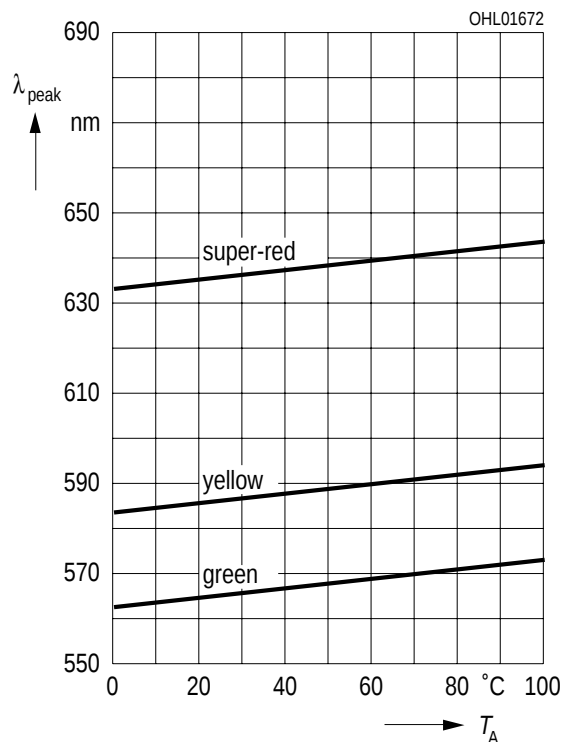
$I_F = f(T_A)$



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

Wavelength at peak emission

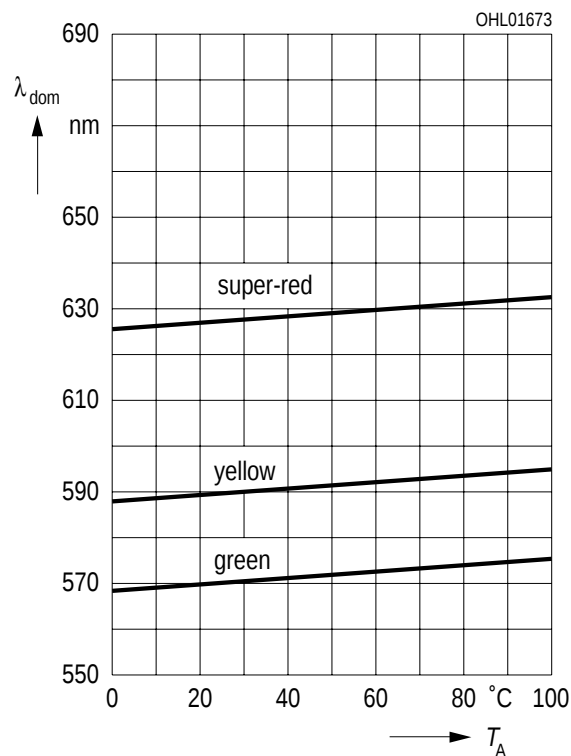
$I_F = 20 \text{ mA}$



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

Dominant wavelength

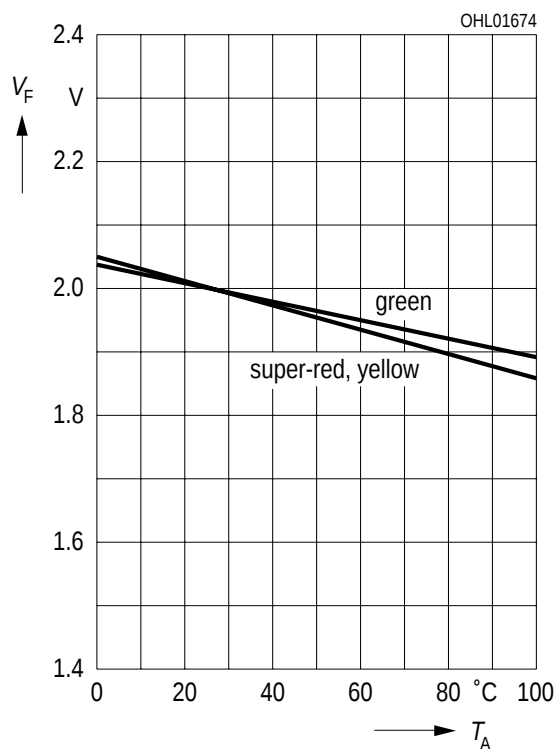
$I_F = 20 \text{ mA}$



Durchlaßspannung $V_F = f(T_A)$

Forward voltage

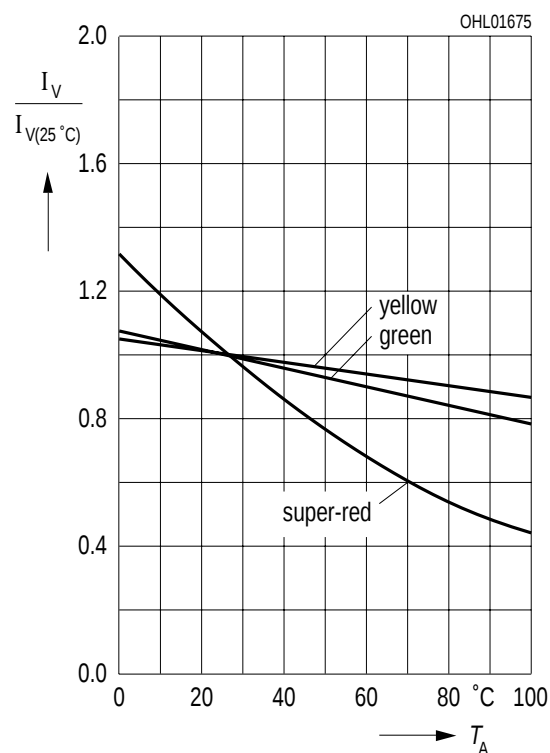
$I_F = 10 \text{ mA}$



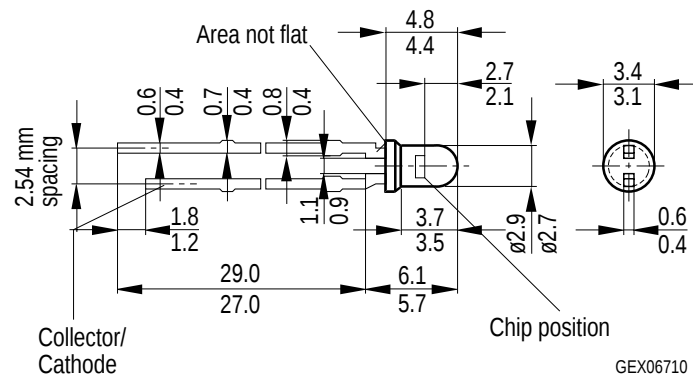
Relative Lichtstärke $I_V/I_{V(25^\circ\text{C})} = f(T_A)$

Relative luminous intensity

$I_F = 10 \text{ mA}$



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



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead