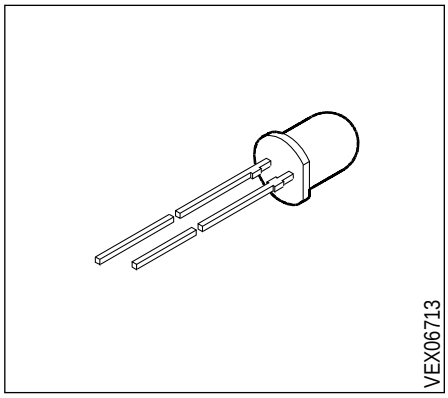
SIEMENS

5 mm (T1 $^3/_4$) LED, Non Diffused
Super-Bright LED

LS 5421, LO 5411, LY 5421
LG 5411

Besondere Merkmale

- eingefärbtes, klares Gehäuse
- als optischer Indikator bei hohem Umgebungslicht
- Lötspieße ohne Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839



Features

- colored, clear package
- for use as optical indicator in bright ambient light
- solder leads without 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 mA I_V (mcd)	Bestellnummer Ordering Code
LS 5421-NR	super-red	red clear	25 … 200	Q62703-Q1994
LS 5421-Q			63 … 125	Q62703-Q1442
LS 5421-R			100 … 200	Q62703-Q1738
LS 5421-S			160 … 320	Q62703-Q2405
LS 5421-QT			63 … 500	Q62703-Q1995
LO 5411-QT	orange	colorless clear	63 … 500	Q62703-Q3928
LO 5411-R			100 … 200	Q62703-Q3929
LO 5411-S			160 … 320	Q62703-Q3930
LO 5411-T			250 … 500	Q62703-Q3931
LO 5411-RU			100 … 800	Q62703-Q3932
LY 5421-NR	yellow	yellow clear	25 … 200	Q62703-Q1444
LY 5421-Q			63 … 125	Q62703-Q1446
LY 5421-R			100 … 200	Q62703-Q2005
LY 5421-S			160 … 320	Q62703-Q2632
LY 5421-QT			63 … 500	Q62703-Q1447
LG 5411-NR	green	colorless clear	25 … 200	Q62703-Q2023
LG 5411-Q			63 … 125	Q62703-Q1739
LG 5411-R			100 … 200	Q62703-Q1451
LG 5411-S			160 … 320	Q62703-Q2321
LG 5411-QT			63 … 500	Q62703-Q2024

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V\,max}$ / $I_{V\,min} \leq 2.0$.
Luminous intensity ratio in one packaging unit $I_{V\,max}$ / $I_{V\,min} \leq 2.0$.

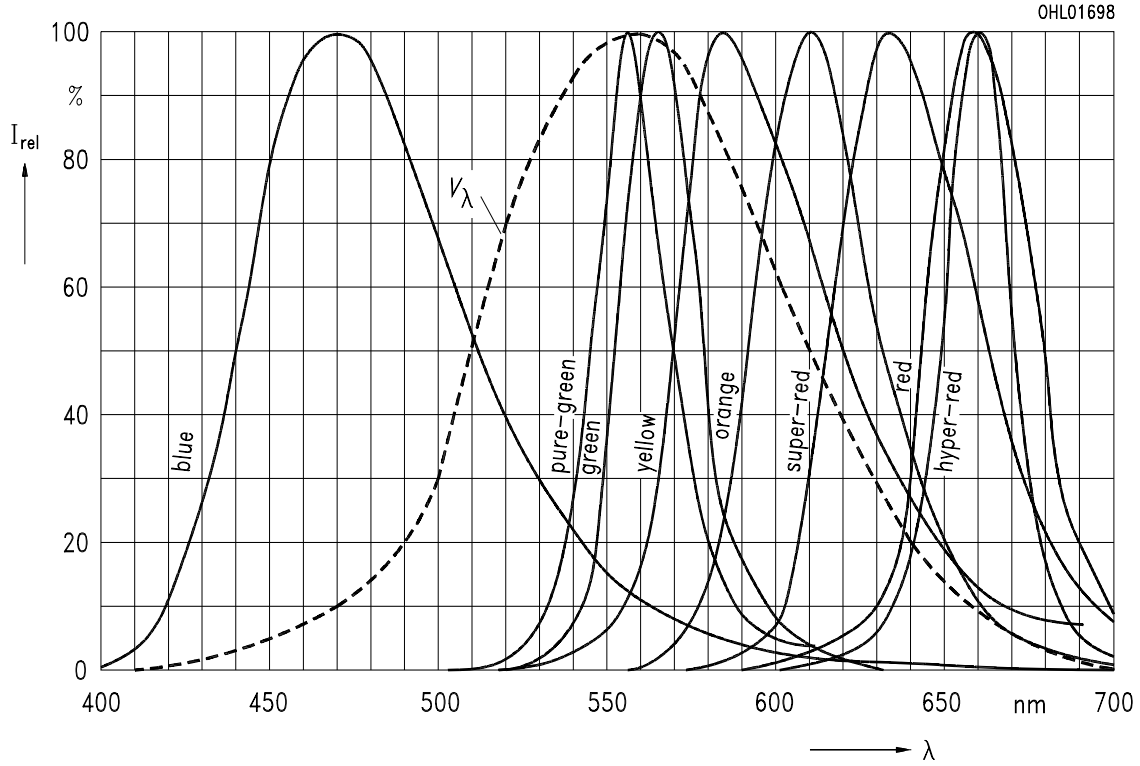
Grenzwerte
Maximum Ratings

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

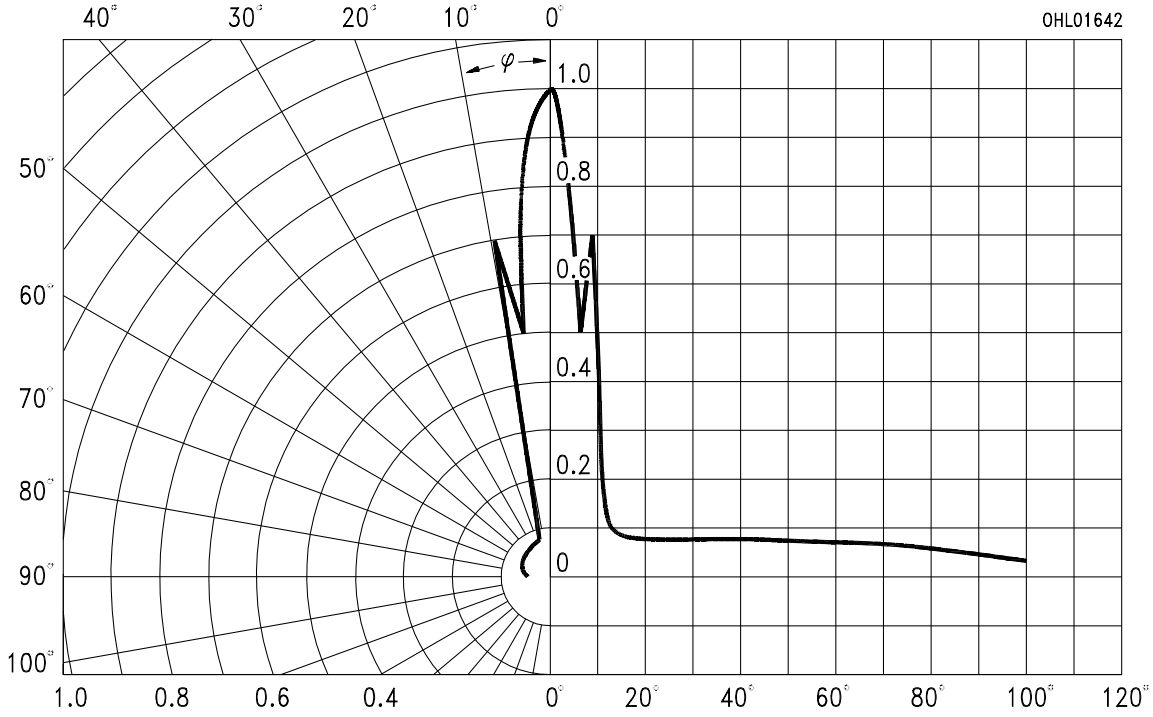
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
		LS	**LY**	**LG**	**LO**	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 20 mA	λ_{peak}	635	586	565	610	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 20 mA	λ_{dom}	628	590	570	605	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $I_{rel\ max}$ (typ.) I_F = 20 mA	$\Delta\lambda$	45	45	25	40	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2φ	20	20	20	20	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 10 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 = 5 V	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Kapazität (typ.) Capacitance V_R = 0 V, f = 1 MHz	C_0	12	10	15	8	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % (typ.) I_V from 90 % to 10 % (typ.) I_F = 100 mA, t_P = 10 µs, R_L = 50 Ω	 t_r t_f	 300 150	 300 150	 450 200	 300 150	 ns ns

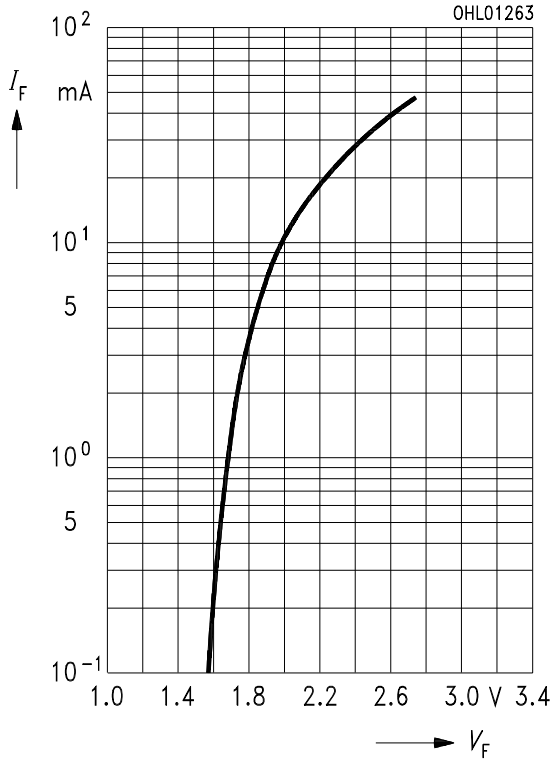
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 ˚C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



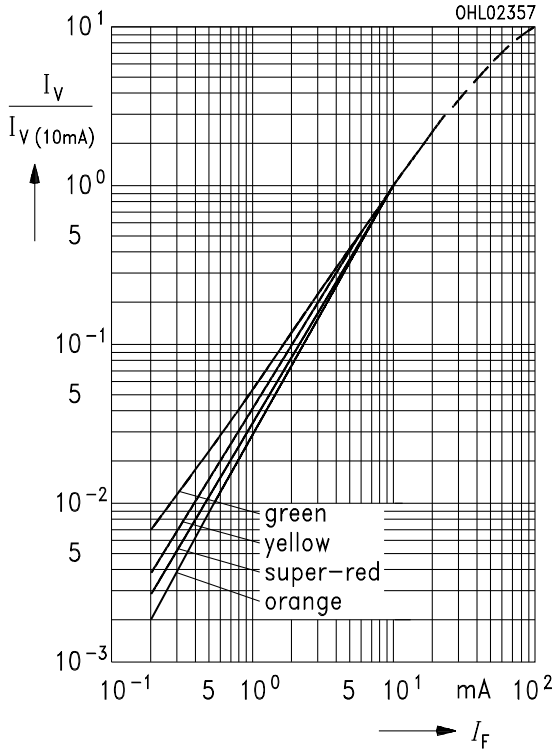
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



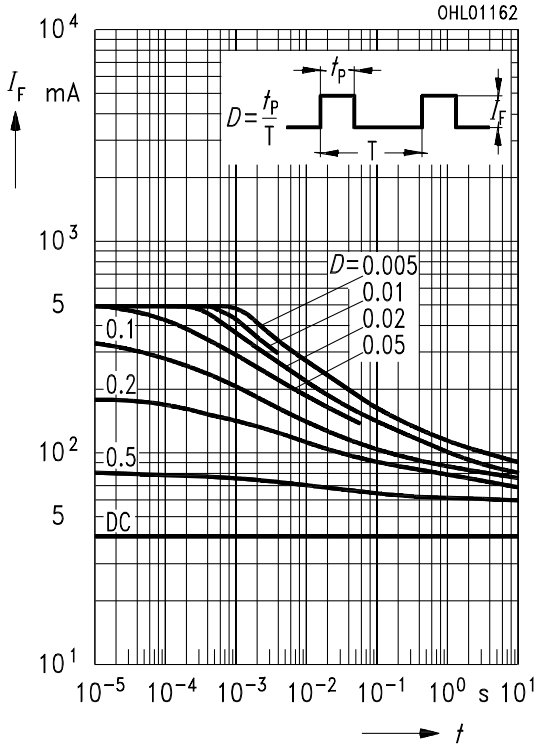
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ℃



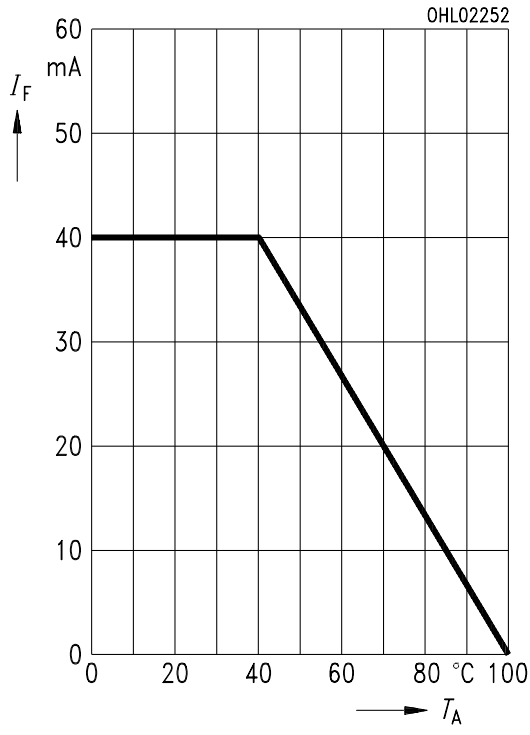
Relative Lichtstärke $I_V/I_{V(10\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ℃



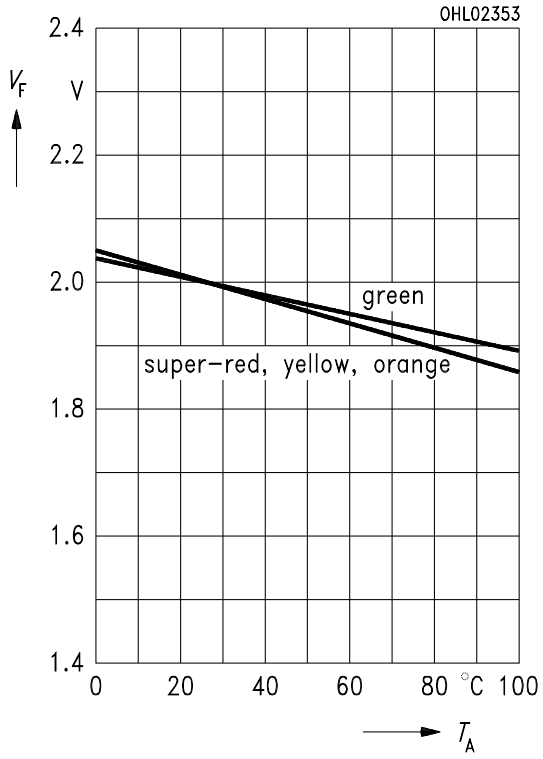
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ℃



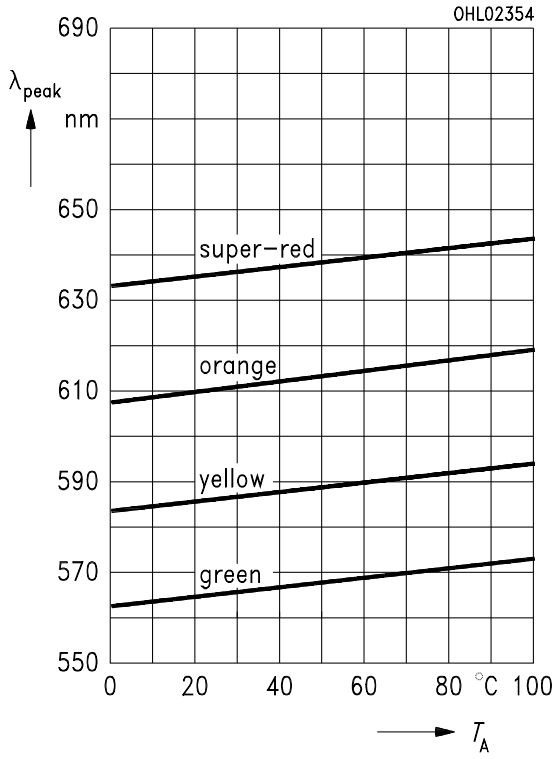
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



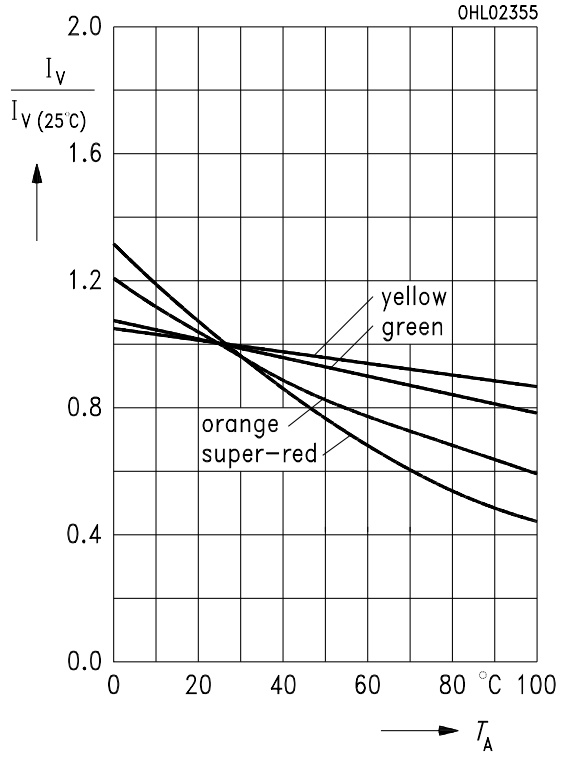
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 20 mA



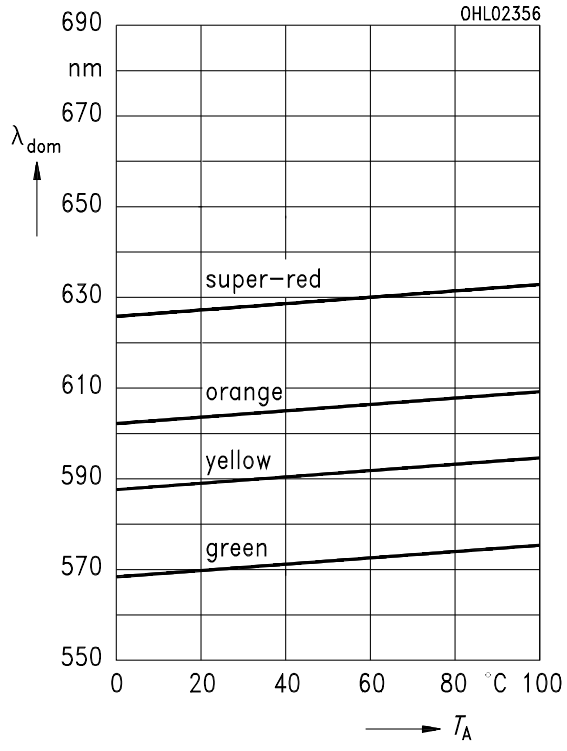
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 20 mA



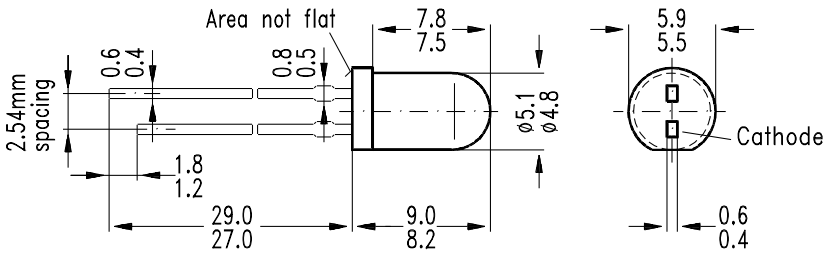
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 10 mA



Relative Lichtstärke $I_V/I_{V(25\,°C)} = f(T_A)$
Relative luminous intensity
I_F = 10 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