

## LC 3 mm (T1) LED, Diffused Low Current LED

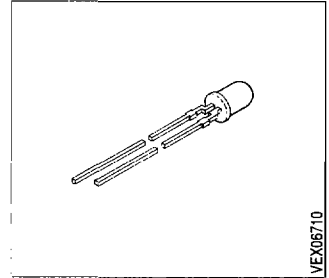
LS 3369, LY 3369, LG 3369

### Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- als optischer Indikator einsetzbar
- hohe Lichtstärke bei kleinen Strömen (typ. 2 mA)
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

### Features

- colored, diffused package
- for use as optical indicator
- high luminous intensity at low currents (typ. 2 mA)
- 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 $I_F = 2 \text{ mA}$ $I_V$ (mcd)	Bestellnummer Ordering Code
LS 3369-EH LS 3369-G LS 3369-H LS 3369-GK	super-red	red diffused	0.63 ... 5.0 1.60 ... 3.2 2.50 ... 5.0 1.60 ... 12.5	Q62703-Q1748 Q62703-Q2068 Q62703-Q3820 Q62703-Q3821
LY 3369-EH LY 3369-F LY 3369-G LY 3369-H LY 3369-FJ	yellow	yellow diffused	0.63 ... 5.0 1.00 ... 2.0 1.60 ... 3.2 2.50 ... 5.0 1.00 ... 8.0	Q62703-Q1749 Q62703-Q2030 Q62703-Q2029 Q62703-Q1906 Q62703-Q3822
LG 3369-EH LG 3369-F LG 3369-G LG 3369-FJ	green	green diffused	0.63 ... 5.0 1.00 ... 2.0 1.60 ... 3.2 1.00 ... 8.0	Q62703-Q1750 Q62703-Q2069 Q62703-Q2070 Q62703-Q3823

Streuung der Lichterstärke 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 $T_A \leq 25 \text{ °C}$	$P_{tot}$	20	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th JA}$	500	K/W

## Kennwerte ( $T_A = 25\text{ °C}$ )

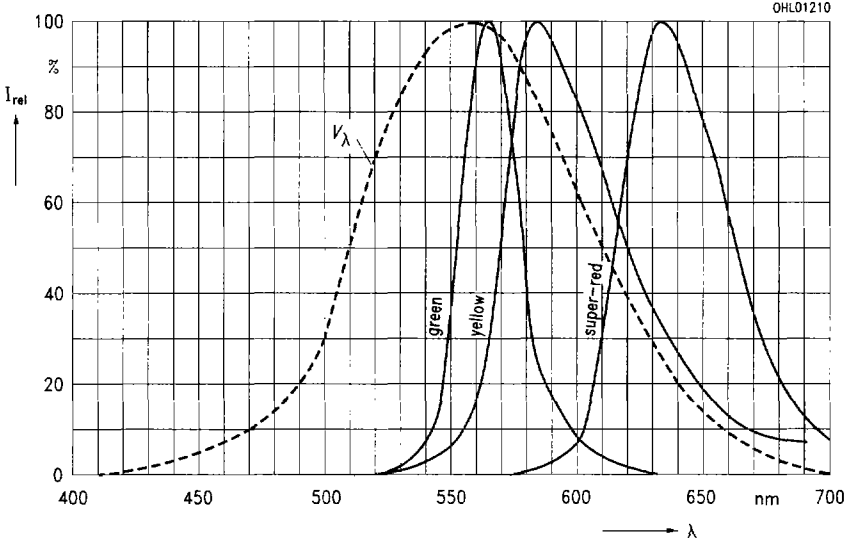
### Characteristics

Bezeichnung Parameter	Symbol Symbol	Werte Values			Einheit Unit
		LS	LY	LG	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 7.5\text{ mA}$	$\lambda_{\text{peak}}$	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 7.5\text{ mA}$	$\lambda_{\text{dom}}$	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 % $I_V$	$2\varphi$	60	60	60	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	$\mu\text{A}$ $\mu\text{A}$
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**  $I_{rel} = f(\lambda)$ ,  $T_A = 25^\circ\text{C}$ ,  $I_F = 7.5\text{ mA}$

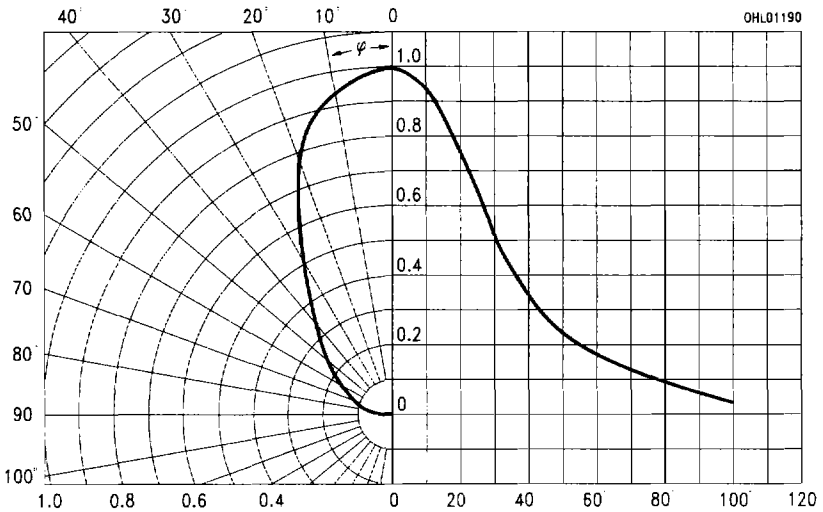
**Relative spectral emission**

$V(\lambda)$  = spektrale Augenempfindlichkeit  
Standard eye response curve



**Abstrahcharakteristik**  $I_{rel} = f(\varphi)$

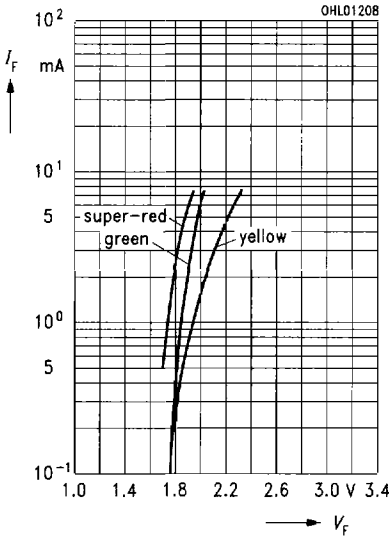
**Radiation characteristic**



**Durchlaßstrom  $I_F = f(V_F)$**

**Forward current**

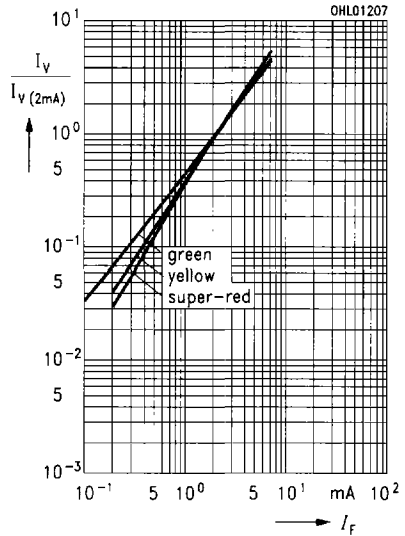
$T_A = 25\text{ °C}$



**Relative Lichtstärke  $I_V/I_{V(2\text{mA})} = f(I_F)$**

**Relative luminous intensity**

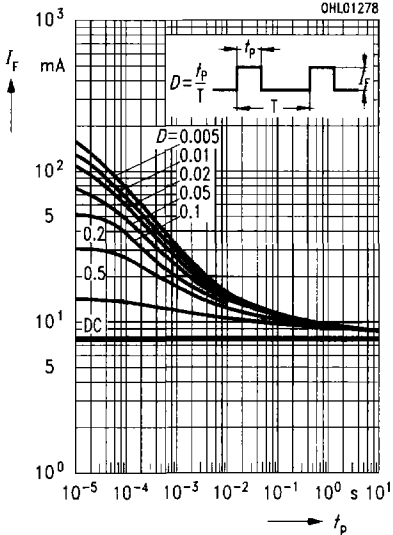
$T_A = 25\text{ °C}$



**Zulässige Impulsbelastbarkeit  $I_F = f(t_p)$**

**Permissible pulse handling capability**

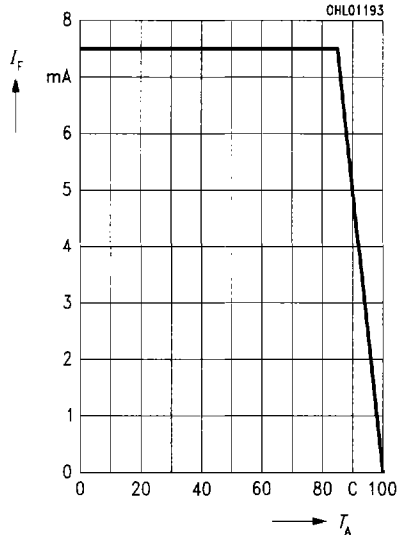
Duty cycle  $D =$  parameter,  $T_A = 25\text{ °C}$



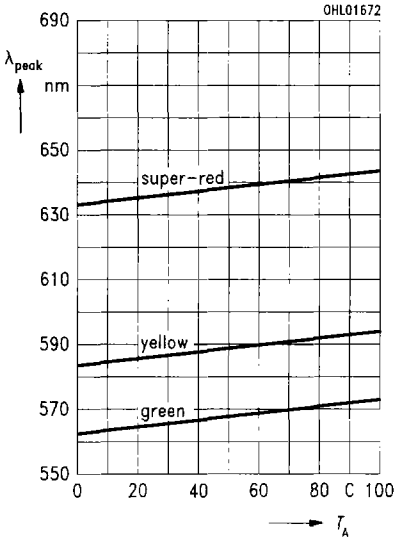
**Maximal zulässiger Durchlaßstrom**

**Max. permissible forward current**

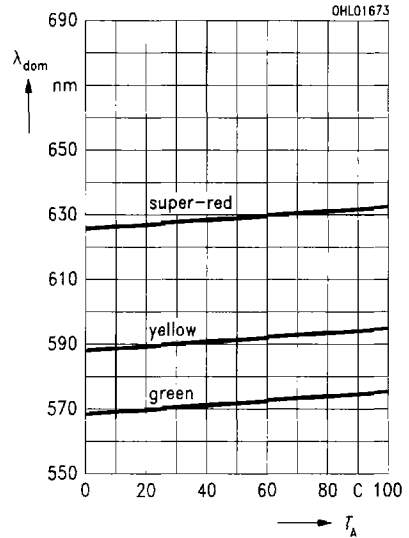
$I_F = f(T_A)$



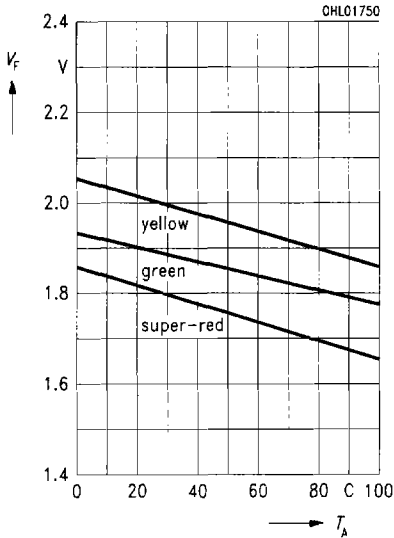
**Wellenlänge der Strahlung  $\lambda_{\text{peak}} = f(T_A)$**   
**Wavelength at peak emission**  
 $I_F = 7.5 \text{ mA}$



**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**  
 $I_F = 2 \text{ mA}$

