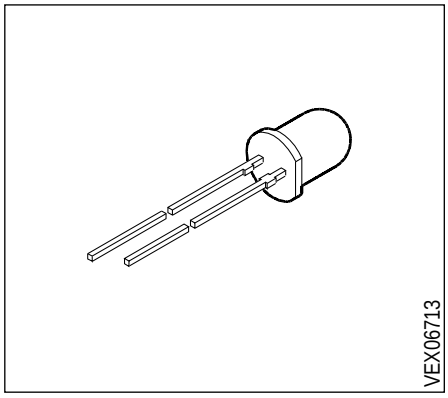
SIEMENS

5 mm (T1 $^3/_4$) LED, Diffused

LR 5460, LS 5460, LY 5460 LG 5460



Besondere Merkmale

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

Features

- colored, diffused package
- for use as optical indicator
- solder leads without stand-off
- available taped on reel
- load dump resistance 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
LR 5460-DG	red	red diffused	0.4 … 3.2	Q62703-Q1392
LR 5460-F			1.0 … 2.0	Q62703-Q1393
LR 5460-G			1.6 … 3.2	Q62703-Q1394
LR 5460-FJ			1.0 … 8.0	Q62703-Q1395
LS 5460-HL	super-red	red diffused	2.5 … 20.0	Q62703-Q1396
LS 5460-J			4.0 … 8.0	Q62703-Q1746
LS 5460-K			6.3 … 12.5	Q62703-Q1397
LS 5460-L			10.0 … 20.0	Q62703-Q1398
LS 5460-JM			4.0 … 32.0	Q62703-Q3225
LY 5460-HL	yellow	yellow diffused	2.5 … 20.0	Q62703-Q1400
LY 5460-J			4.0 … 8.0	Q62703-Q1401
LY 5460-K			6.3 … 12.5	Q62703-Q1402
LY 5460-L			10.0 … 20.0	Q62703-Q2403
LY 5460-JM			4.0 … 32.0	Q62703-Q1403
LG 5460-GK	green	green diffused	1.6 … 12.5	Q62703-Q1407
LG 5460-H			2.5 … 5.0	Q62703-Q1406
LG 5460-J			4.0 … 8.0	Q62703-Q1867
LG 5460-K			6.3 … 12.5	Q62703-Q2014
LG 5460-HL			2.5 … 20.0	Q62703-Q3190

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

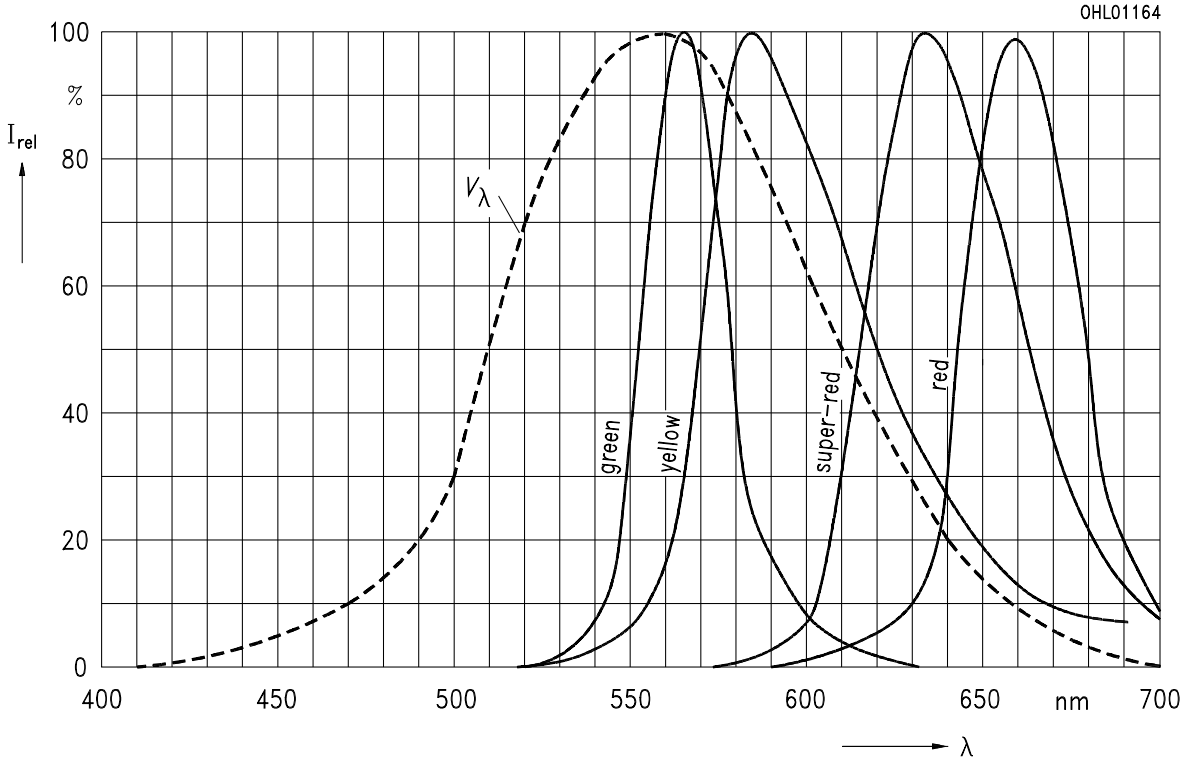
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**		**Einheit** **Unit**
		LR	**LS, LY, LG**	
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	45	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}	100	140	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th\ JA}$	400		K/W

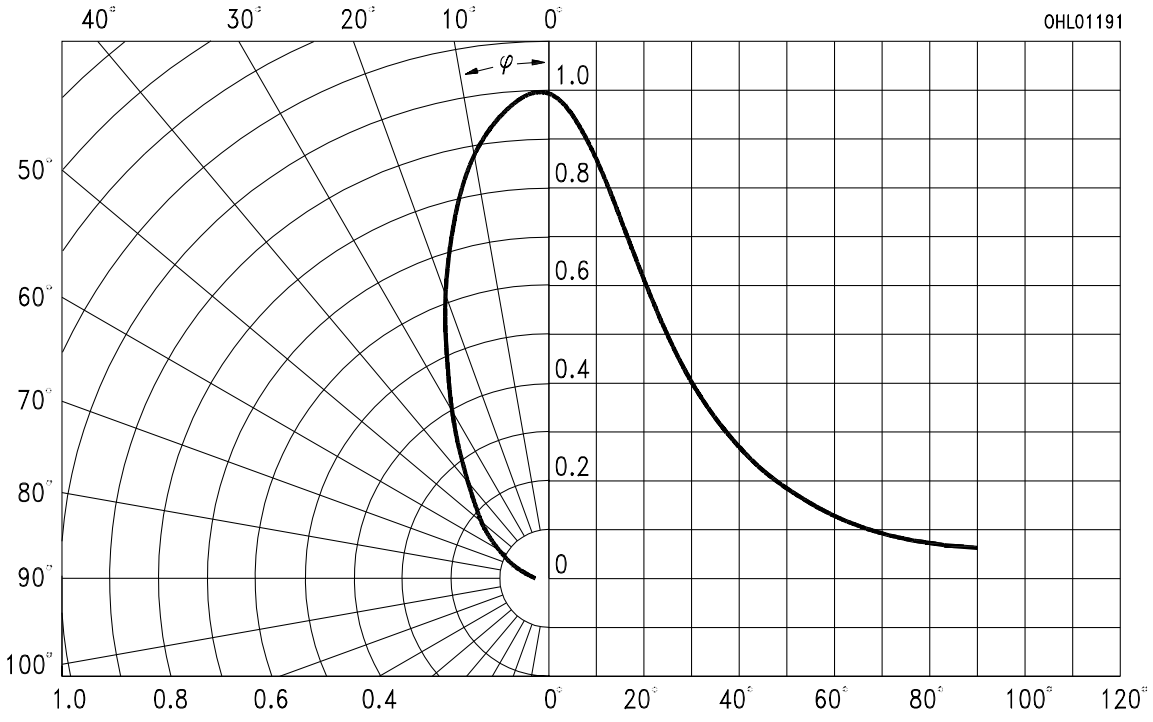
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**		**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
			LR	**LS**	**LY**	**LG**	
Wellenlänge des emittierten Lichtes Wavelength at peak emission I_F = 20 mA	(typ.) (typ.)	λ_{peak}	660	635	586	565	nm
Dominantwellenlänge Dominant wavelength I_F = 20 mA	(typ.) (typ.)	λ_{dom}	645	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ Spectral bandwidth at 50 % $I_{rel\ max}$ I_F = 20 mA	(typ.) (typ.)	$\Delta\lambda$	35	45	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V		2φ	50	50	50	50	Grad deg.
Durchlaßspannung Forward voltage I_F = 10 mA	(typ.) (max.)	V_F V_F	1.6 2.0	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom Reverse current V_R = 5 V	(typ.) (max.)	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Kapazität Capacitance V_R = 0 V, f = 1 MHz	(typ.)	C_0	25	12	10	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % I_V from 90 % to 10 % I_F = 100 mA, t_P = 10 µs, R_L = 50 Ω	 (typ.) (typ.)	 t_r t_f	 120 50	 300 150	 300 150	 450 200	 ns ns

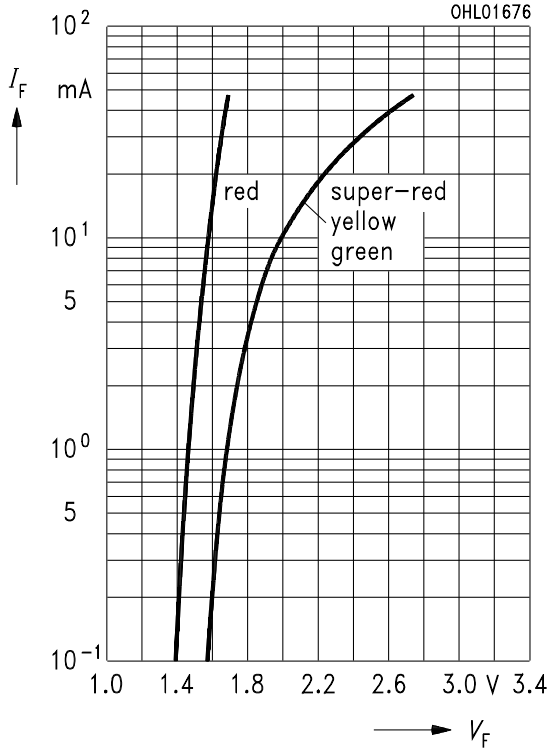
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 ˚C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



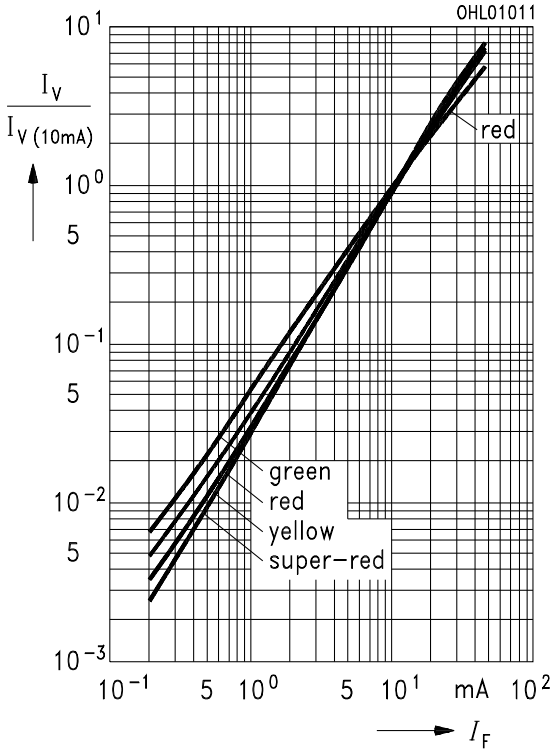
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



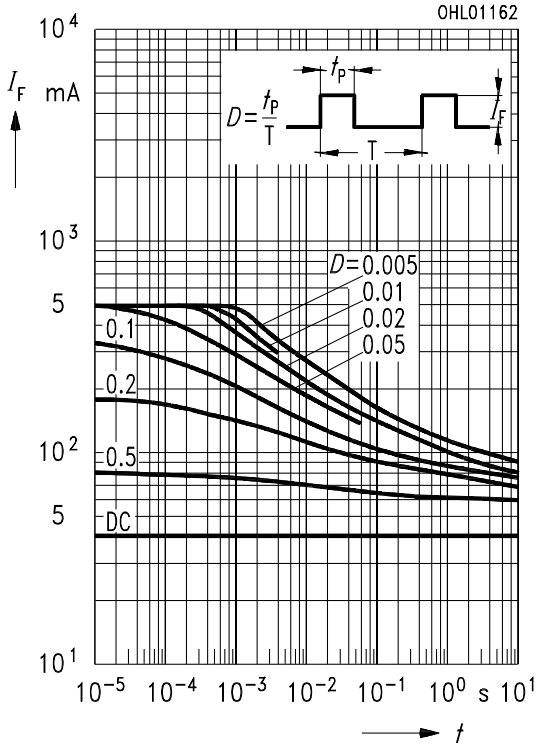
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ˚C



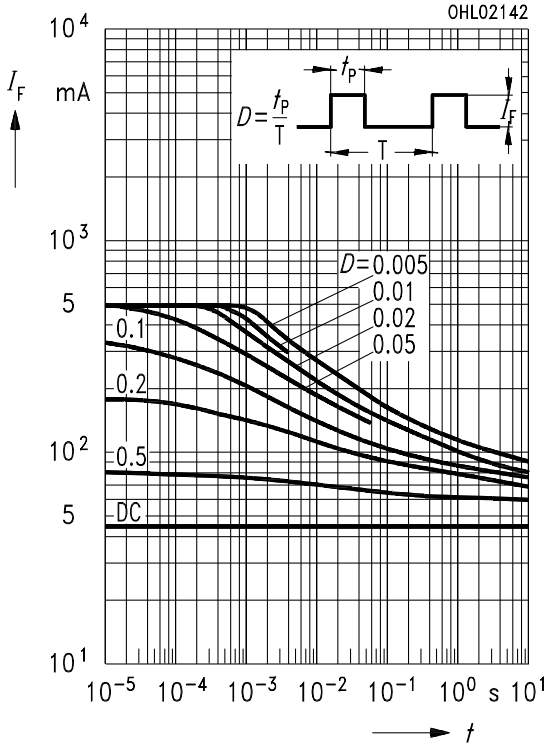
Relative Lichtstärke $I_V/I_{V(10\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ˚C



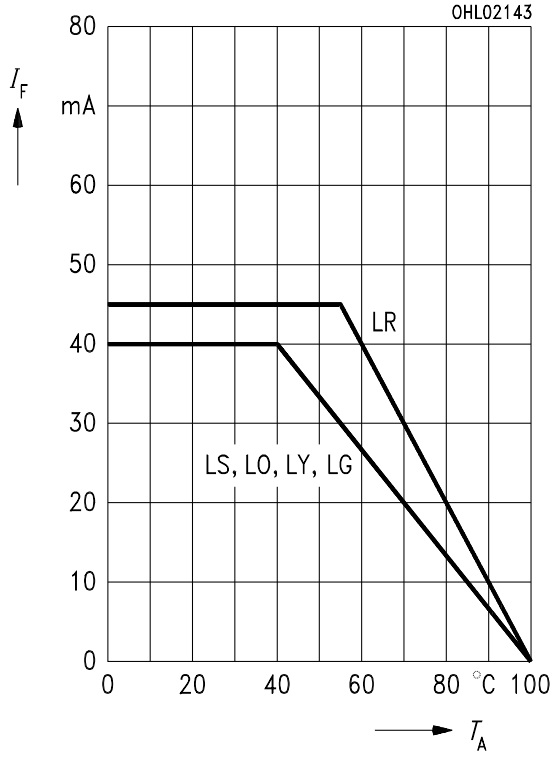
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C
LS, LY, LG



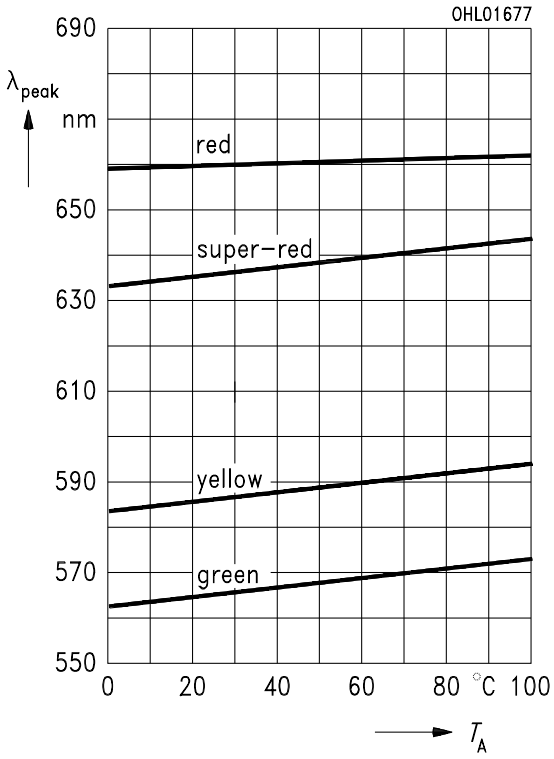
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C
LR



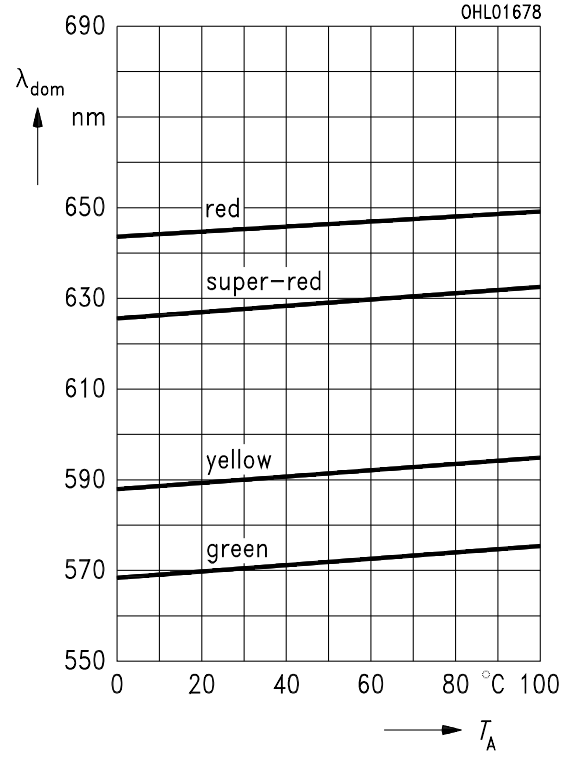
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



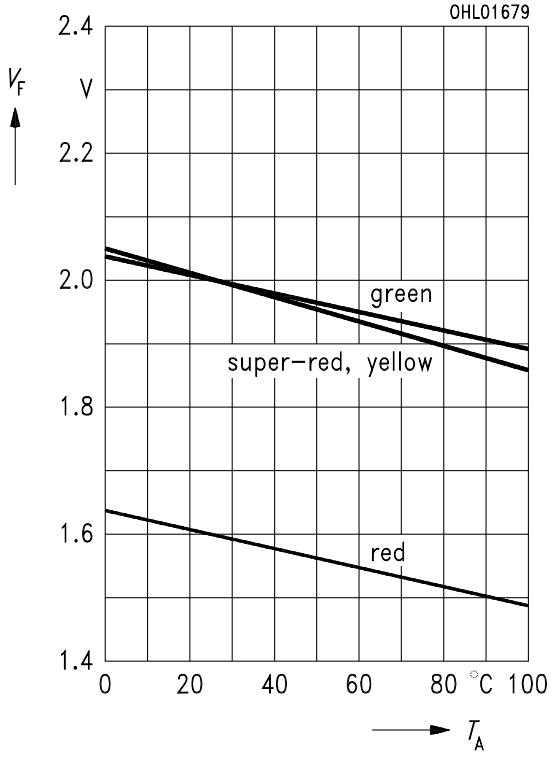
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 20 mA



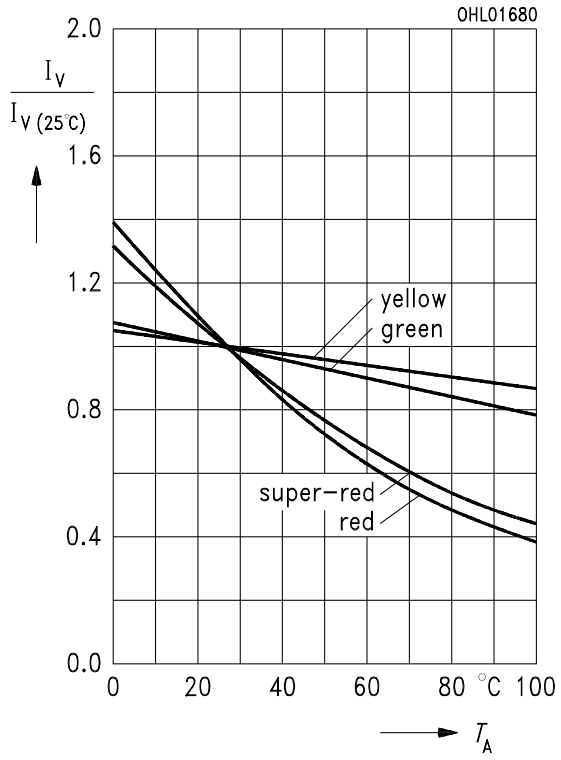
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 20 mA



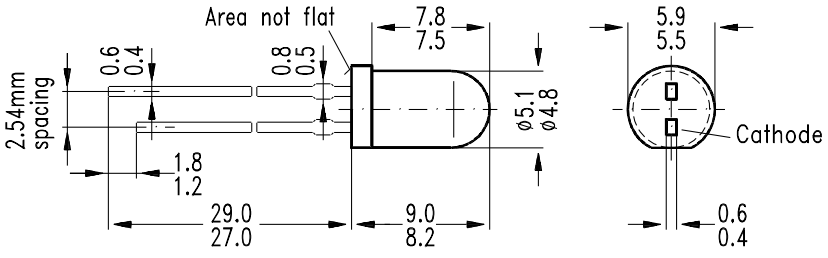
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 10 mA



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