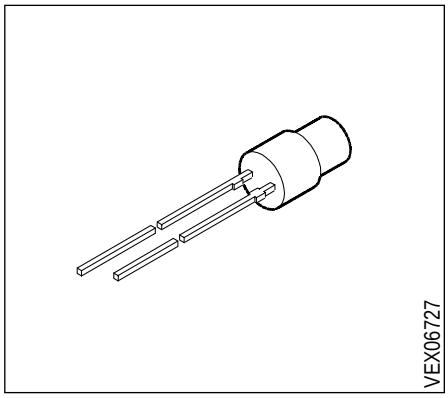
SIEMENS

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

LR H380, LS H380, LY H380
LG H380

Besondere Merkmale

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



Features

- colored, partly diffused package
- for use as optical indicator in frontpanels
- solder leads without stand-off
- availabel 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 H380-BD	red	red,	0.16 … 0.80	Q62703-Q1478
LR H380-C		partly diffused	0.25 … 0.50	Q62703-Q1479
LR H380-D			0.40 … 0.80	Q62703-Q1988
LR H380-CE			0.25 … 1.25	Q62703-Q3846
LS H380-EH	super-red	red,	0.63 … 5.00	Q62703-Q1480
LS H380-G		partly diffused	1.60 … 3.20	Q62703-Q1481
LS H380-H			2.50 … 5.00	Q62703-Q1482
LS H380-J			4.00 … 8.00	Q62703-Q1996
LS H380-GK			1.60 … 12.50	Q62703-Q1483
LO H380-GJ	orange	orange, partly diffused	≥ 1.6 (4.0 typ)	Q62703-Q3097
LY H380-EH	yellow	yellow,	0.63 … 5.00	Q62703-Q1484
LY H380-G		partly diffused	1.60 … 3.20	Q62703-Q1485
LY H380-H			2.50 … 5.00	Q62703-Q1486
LY H380-J			4.00 … 8.00	Q62703-Q2698
LY H380-GK			1.60 … 12.50	Q62703-Q1487
LG H380-EH	green	green,	0.63 … 5.00	Q62703-Q1491
LG H380-G		partly diffused	1.60 … 3.20	Q62703-Q1871
LG H380-H			2.50 … 5.00	Q62703-Q1872
LG H380-J			4.00 … 8.00	Q62703-Q3847
LG H380-GK			1.60 … 12.50	Q62703-Q2027

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

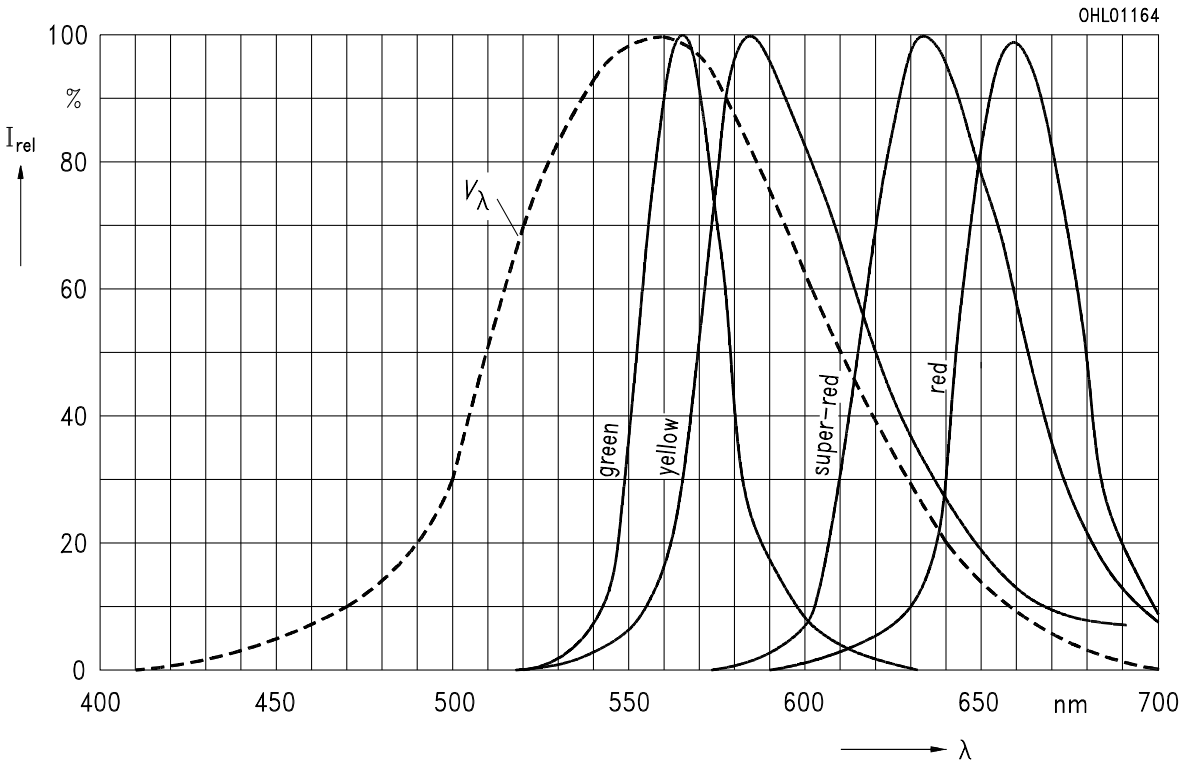
Grenzwerte
Maximum Ratings

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

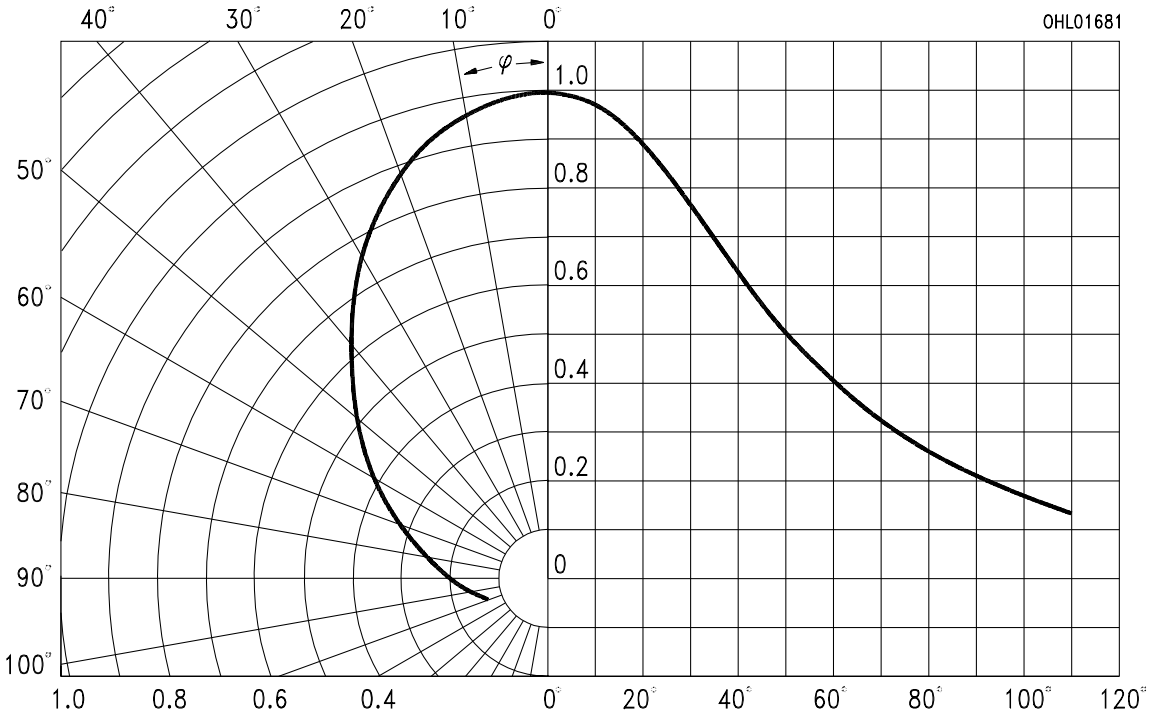
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
		LR	**LS**	**LY**	**LG**	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 20 mA	λ_{peak}	660	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 20 mA	λ_{dom}	645	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $I_{rel\ max}$ (typ.) I_F = 20 mA	$\Delta\lambda$	35	45	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2φ	100	100	100	100	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 10 mA	V_F V_F	1.6 2.0	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	25	12	10	15	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	 120 50	 300 150	 300 150	 450 200	 ns ns

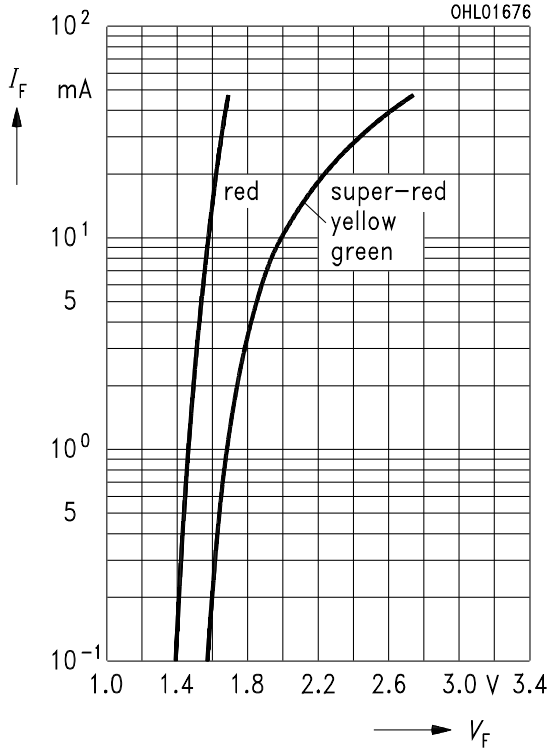
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 ˚C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



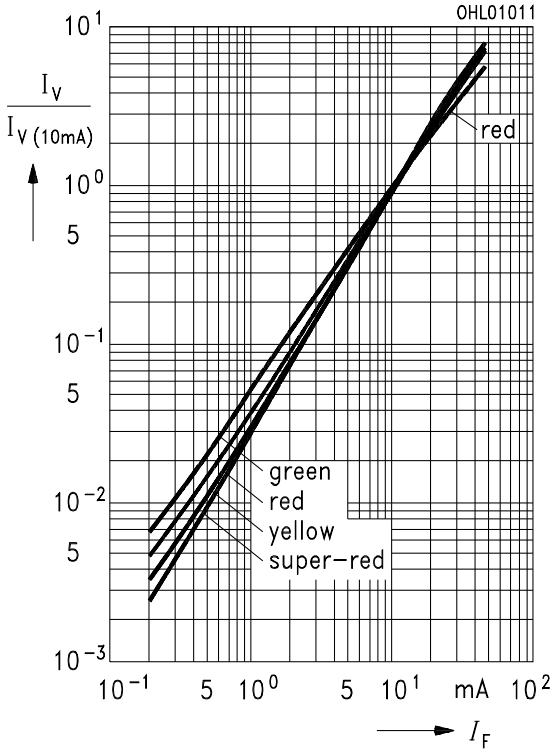
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



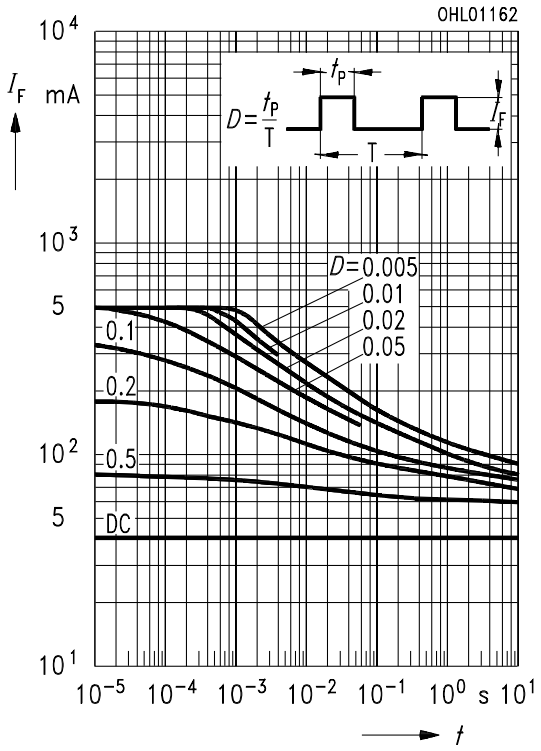
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ˚C



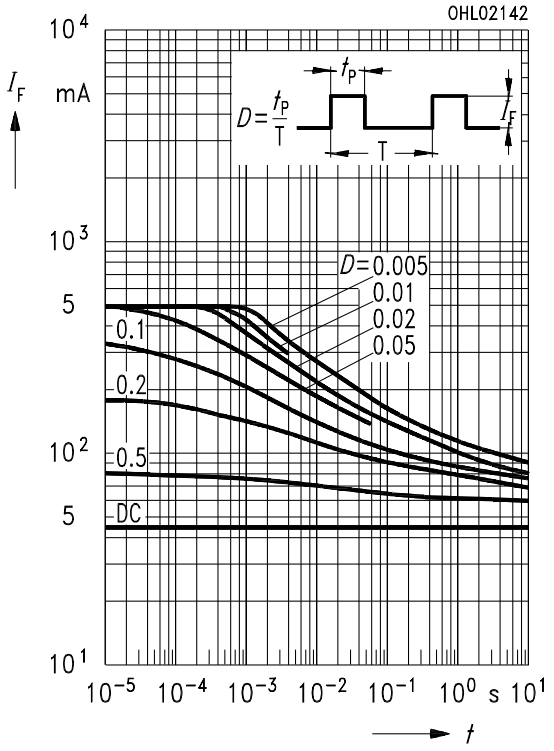
Relative Lichtstärke $I_V/I_{V(10\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ˚C



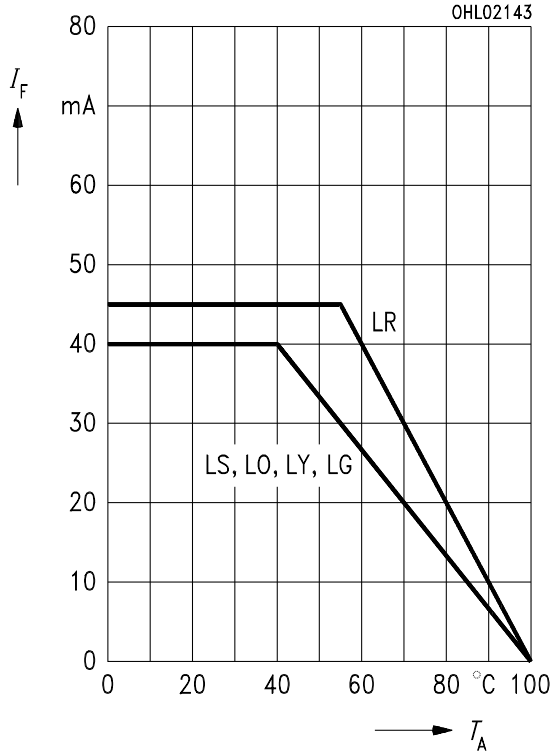
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C
LS, LY, LG



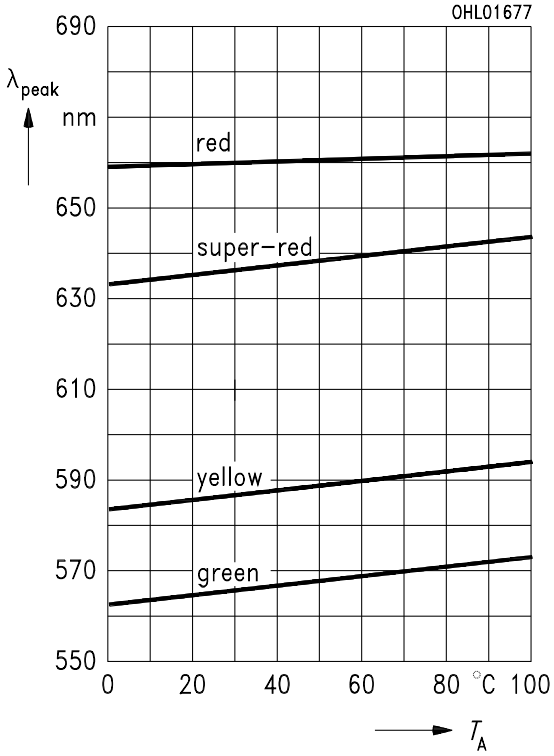
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ˚C
LR



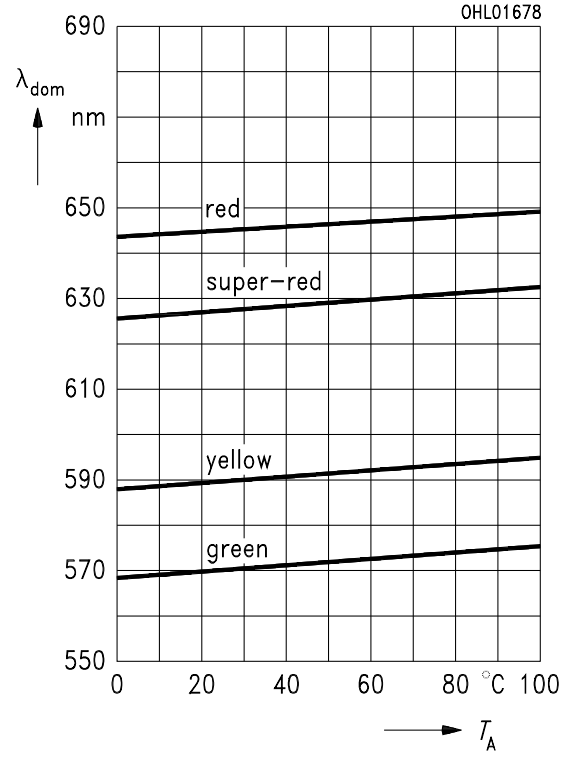
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



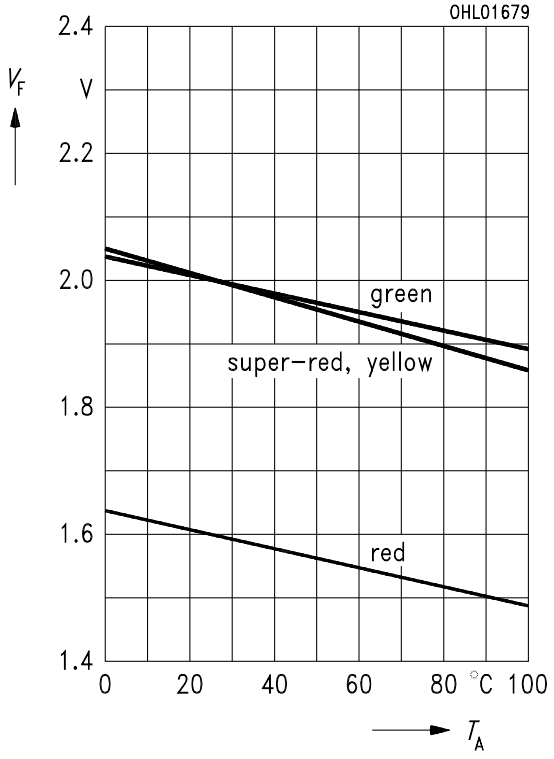
Wellenlänge der Strahlung $\lambda_{peak} = f(T_A)$
Wavelength at peak emission
I_F = 20 mA



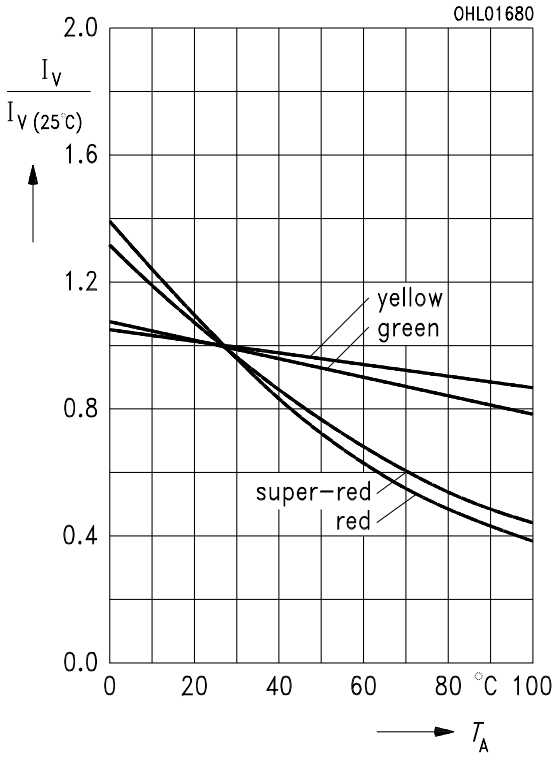
Dominantwellenlänge $\lambda_{dom} = f(T_A)$
Dominant wavelength
I_F = 20 mA



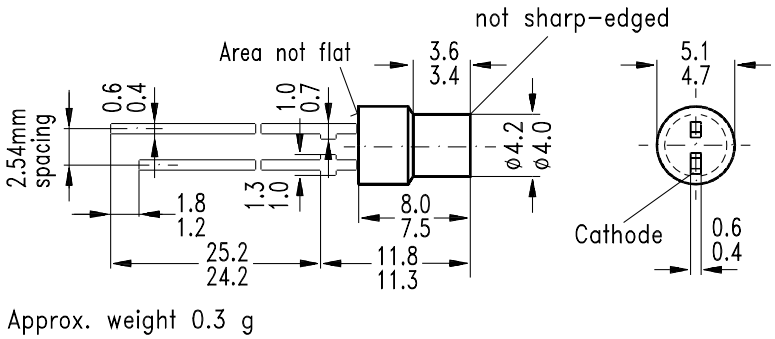
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 10 mA



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)



GEX06727

Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead