

Symbol LED
5 mm (T1 ³/₄) LED, Partly Diffused

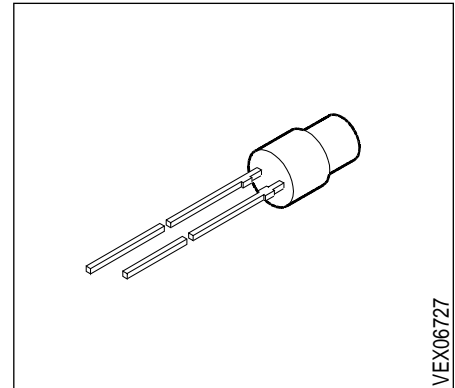
LR H380, LS H380, LY H380
LG H380

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
- available taped on reel
- load dump resistance acc. to DIN 40839



Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstärke Luminous Intensity $I_F = 10 \text{ mA}$ $I_V \text{ (mcd)}$	Bestellnummer Ordering Code
LR H380-BD LR H380-C LR H380-D LR H380-CE	red	red, partly diffused	0.16 ... 0.80 0.25 ... 0.50 0.40 ... 0.80 0.25 ... 1.25	Q62703-Q1478 Q62703-Q1479 Q62703-Q1988 Q62703-Q3846
LS H380-EH LS H380-G LS H380-H LS H380-J LS H380-GK	super-red	red, partly diffused	0.63 ... 5.00 1.60 ... 3.20 2.50 ... 5.00 4.00 ... 8.00 1.60 ... 12.50	Q62703-Q1480 Q62703-Q1481 Q62703-Q1482 Q62703-Q1996 Q62703-Q1483
LO H380-GJ	orange	orange, partly diffused	≥ 1.6 (4.0 typ)	Q62703-Q3097
LY H380-EH LY H380-G LY H380-H LY H380-J LY H380-GK	yellow	yellow, partly diffused	0.63 ... 5.00 1.60 ... 3.20 2.50 ... 5.00 4.00 ... 8.00 1.60 ... 12.50	Q62703-Q1484 Q62703-Q1485 Q62703-Q1486 Q62703-Q2698 Q62703-Q1487
LG H380-EH LG H380-G LG H380-H LG H380-J LG H380-GK	green	green, partly diffused	0.63 ... 5.00 1.60 ... 3.20 2.50 ... 5.00 4.00 ... 8.00 1.60 ... 12.50	Q62703-Q1491 Q62703-Q1871 Q62703-Q1872 Q62703-Q3847 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 $t \leq 10 \mu s, D = 0.005$	I_{FM}	0.5		A
Sperrspannung Reverse voltage	V_R	5		V
Verlustleistung Power dissipation $T_A \leq 25 \text{ °C}$	P_{tot}	100	140	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th JA}$	400		K/W

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

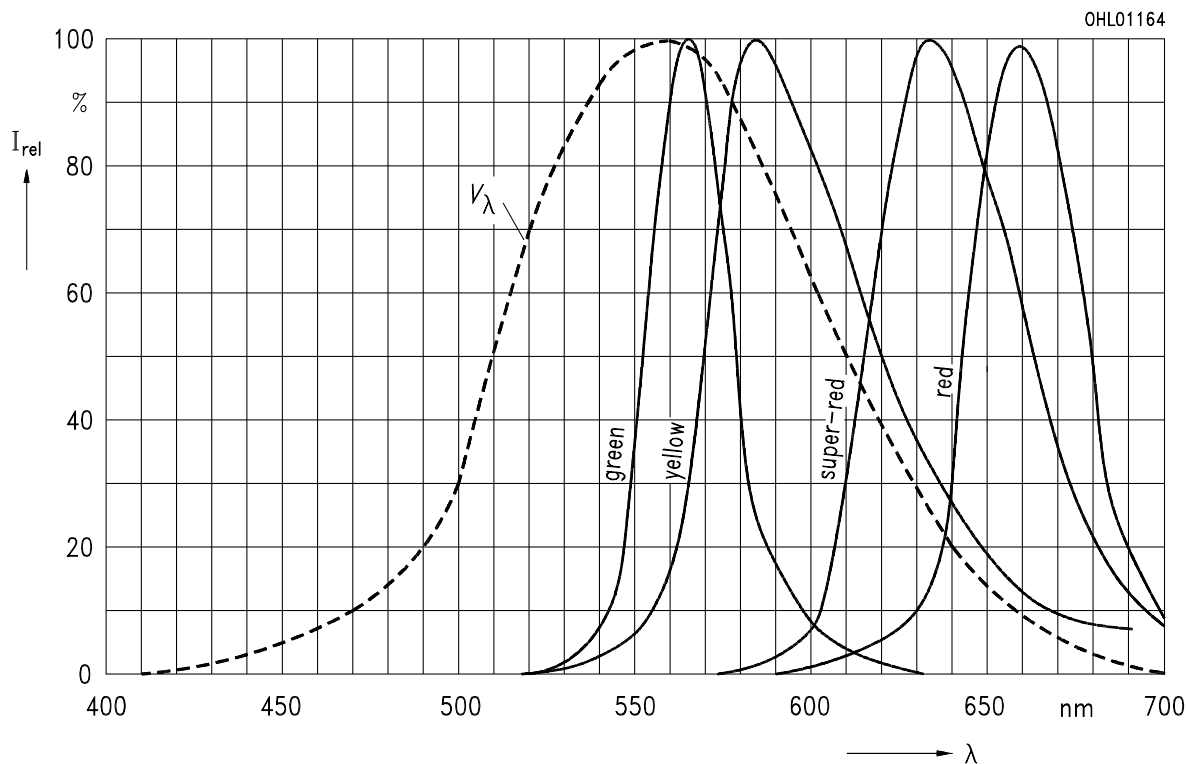
Bezeichnung Parameter	Symbol Symbol	Werte Values				Einheit Unit
		LR	LS	LY	LG	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 20\text{ mA}$	λ_{peak}	660	635	586	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 20\text{ mA}$	λ_{dom}	645	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$ (typ.) Spectral bandwidth at 50 % $I_{\text{rel max}}$ (typ.) $I_F = 20\text{ mA}$	$\Delta\lambda$	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.) $I_F = 10\text{ mA}$	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.) $V_R = 5\text{ V}$	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	μA μA
Kapazität (typ.) Capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_0	25	12	10	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % (typ.) I_V from 90 % to 10 % (typ.) $I_F = 100\text{ mA}, t_p = 10\text{ }\mu\text{s}, R_L = 50\text{ }\Omega$	t_r t_f	120 50	300 150	300 150	450 200	ns ns

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

Relative spectral emission

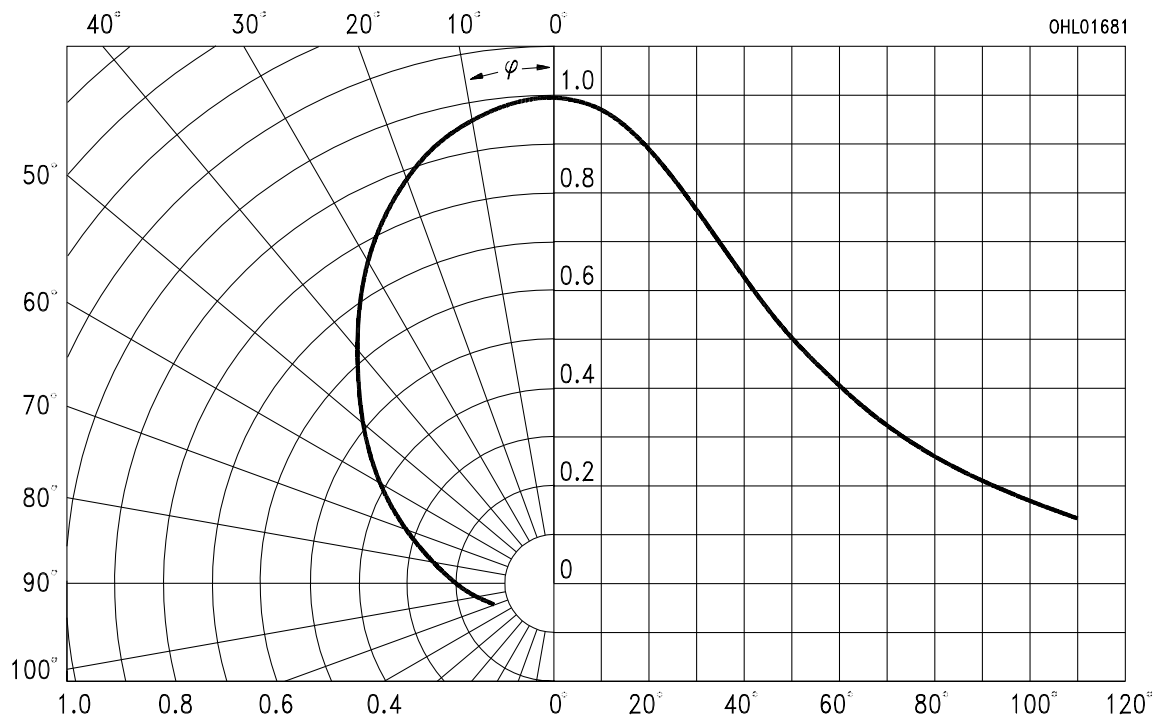
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



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

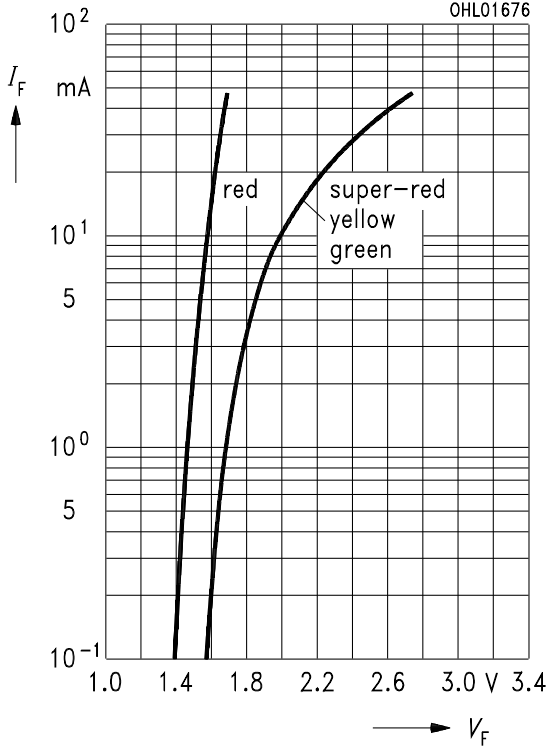
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

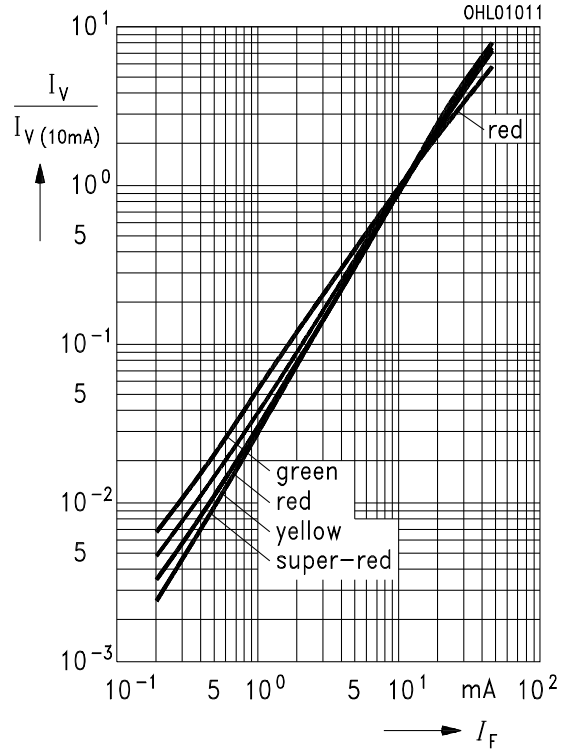
$T_A = 25\text{ °C}$



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

Relative luminous intensity

$T_A = 25\text{ °C}$

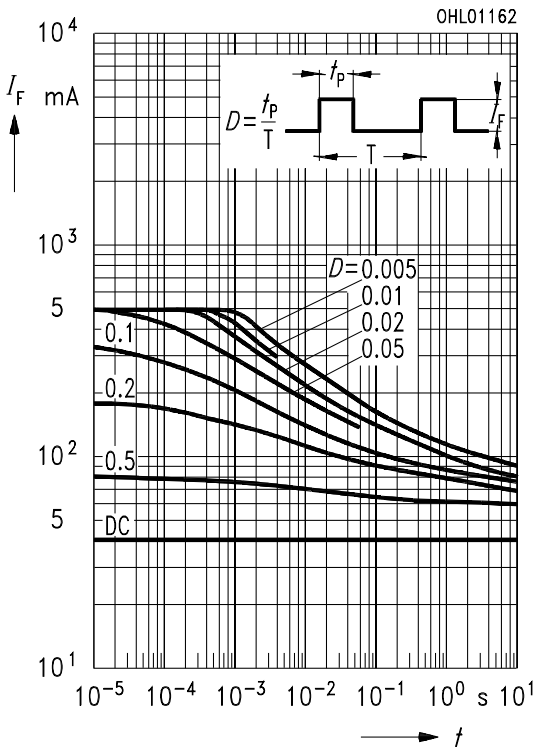


Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

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

LS, LY, LG

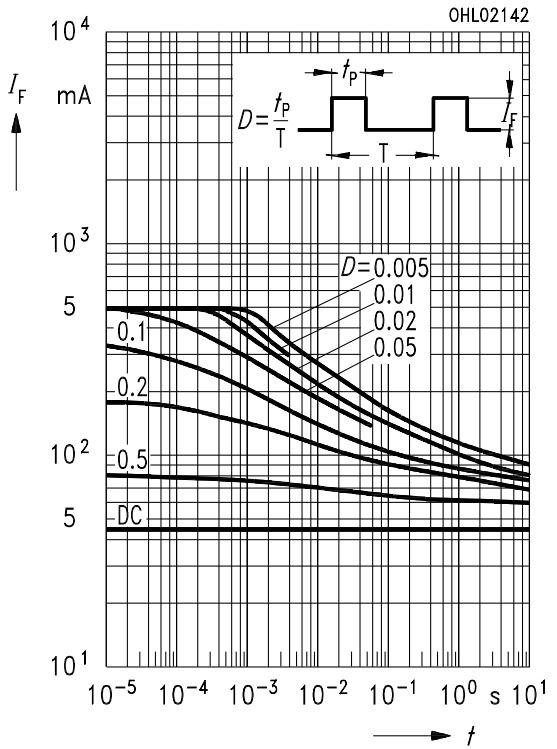


Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

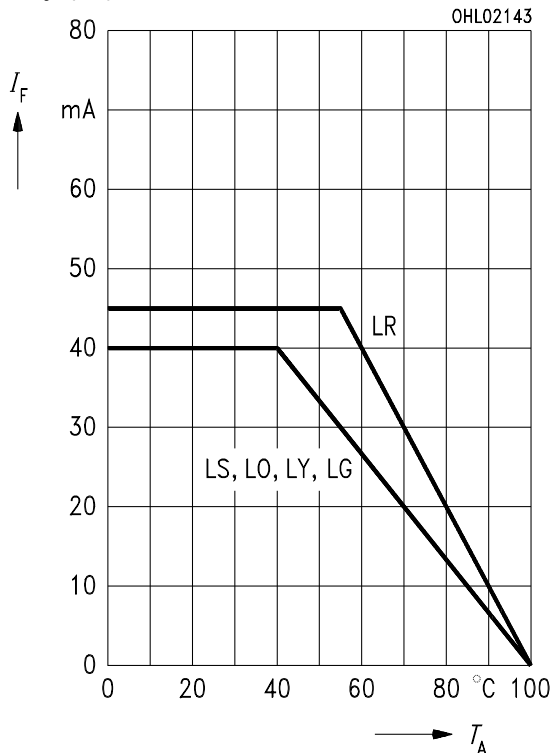
Duty cycle $D = \text{parameter}$, $T_A = 25\text{ °C}$

LR



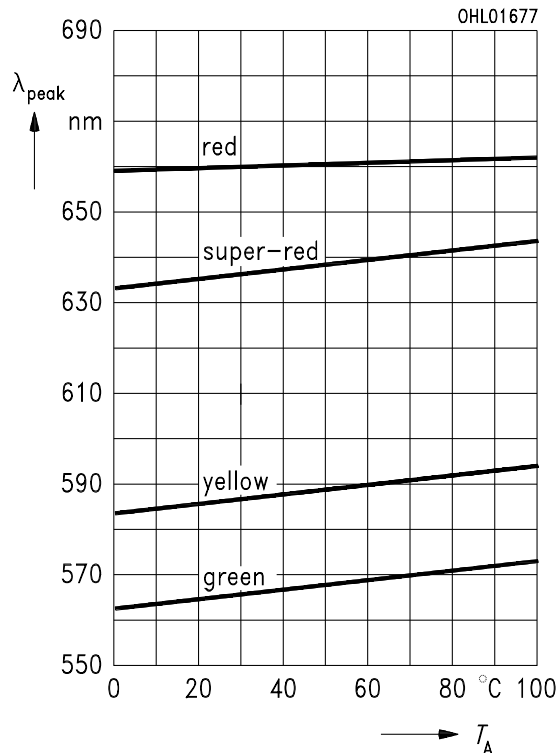
Maximal zulässiger Durchlaßstrom Max. permissible forward current

$$I_F = f(T_A)$$



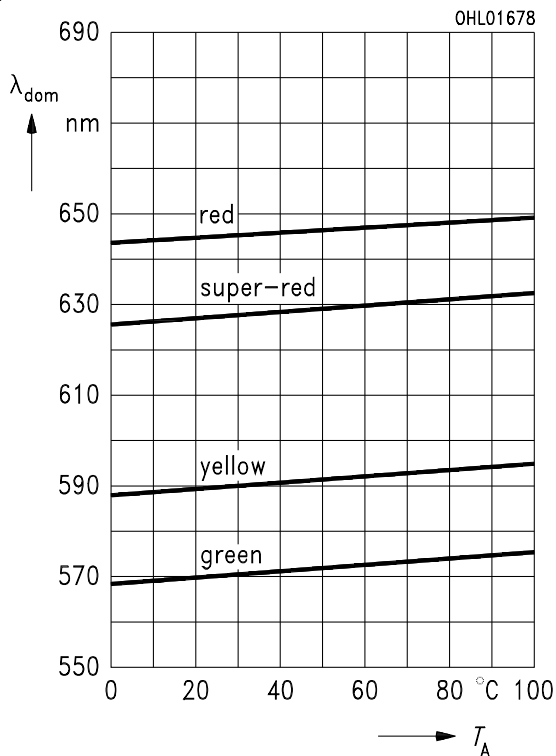
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$ Wavelength at peak emission

$$I_F = 20 \text{ mA}$$



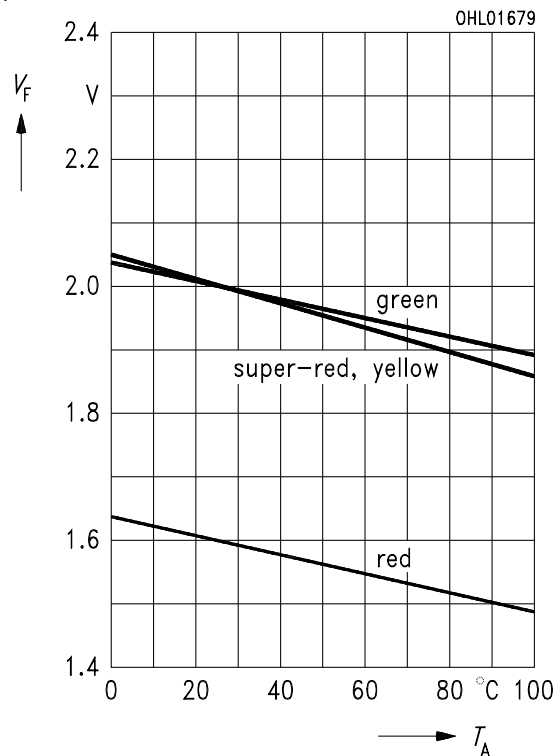
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$ Dominant wavelength

$$I_F = 20 \text{ mA}$$



Durchlaßspannung $V_F = f(T_A)$ Forward voltage

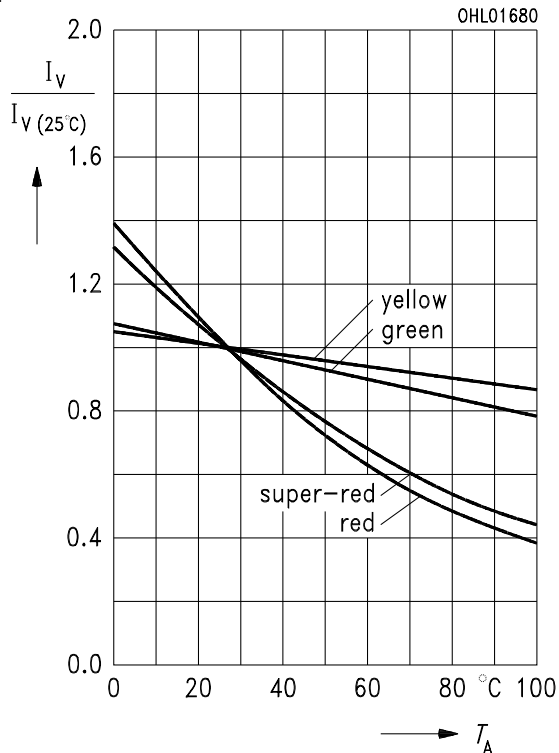
$$I_F = 10 \text{ mA}$$



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

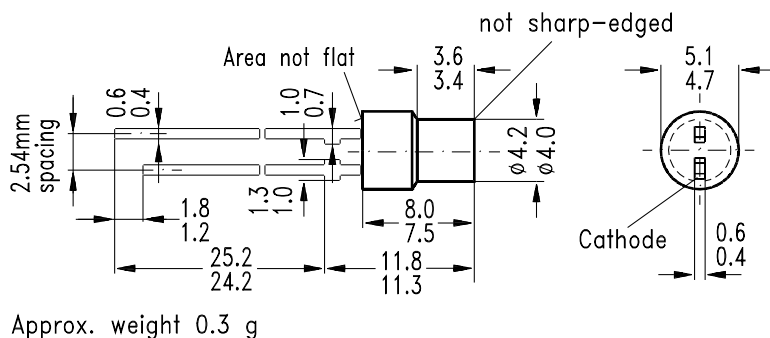
Relative luminous intensity

$I_F = 10 \text{ mA}$



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)

Package Outlines (Dimensions in mm, unless otherwise specified)



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead