

Symbol LED 5 mm × 2.5 mm, Partly Diffused

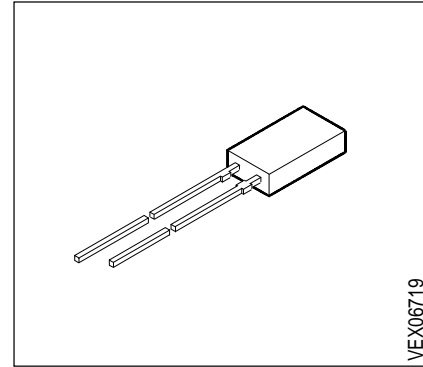
LR B480, LS B480, LY B480
LG B480

Besondere Merkmale

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

Features

- colored, partly diffused package
- for use as optical indicator in frontpanel
- solder leads without stand-off
- Bargraph displays
- 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 B480-BD	red	red, partly diffused	0.16 ... 0.80	Q62703-Q1464
LR B480-C			0.25 ... 0.50	Q62703-Q1465
LR B480-D			0.40 ... 0.80	Q62703-Q2648
LR B480-CE			0.25 ... 1.25	Q62703-Q3841
LS B480-EH	super-red	red, partly diffused	0.63 ... 5.00	Q62703-Q1466
LS B480-G			1.60 ... 3.20	Q62703-Q1467
LS B480-H			2.50 ... 5.00	Q62703-Q1468
LS B480-GK			1.60 ... 12.50	Q62703-Q1469
LY B480-EH	yellow	yellow, partly diffused	0.63 ... 5.00	Q62703-Q1470
LY B480-G			1.60 ... 3.20	Q62703-Q1471
LY B480-H			2.50 ... 5.00	Q62703-Q2006
LY B480-J			4.00 ... 8.00	Q62703-Q1473
LY B480-GK			1.60 ... 12.50	Q62703-Q2007
LG B480-EH	green	green, partly diffused	0.63 ... 5.00	Q62703-Q1477
LG B480-G			1.60 ... 3.20	Q62703-Q1870
LG B480-H			2.50 ... 5.00	Q62703-Q2025
LG B480-GK			1.60 ... 12.50	Q62703-Q2026

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

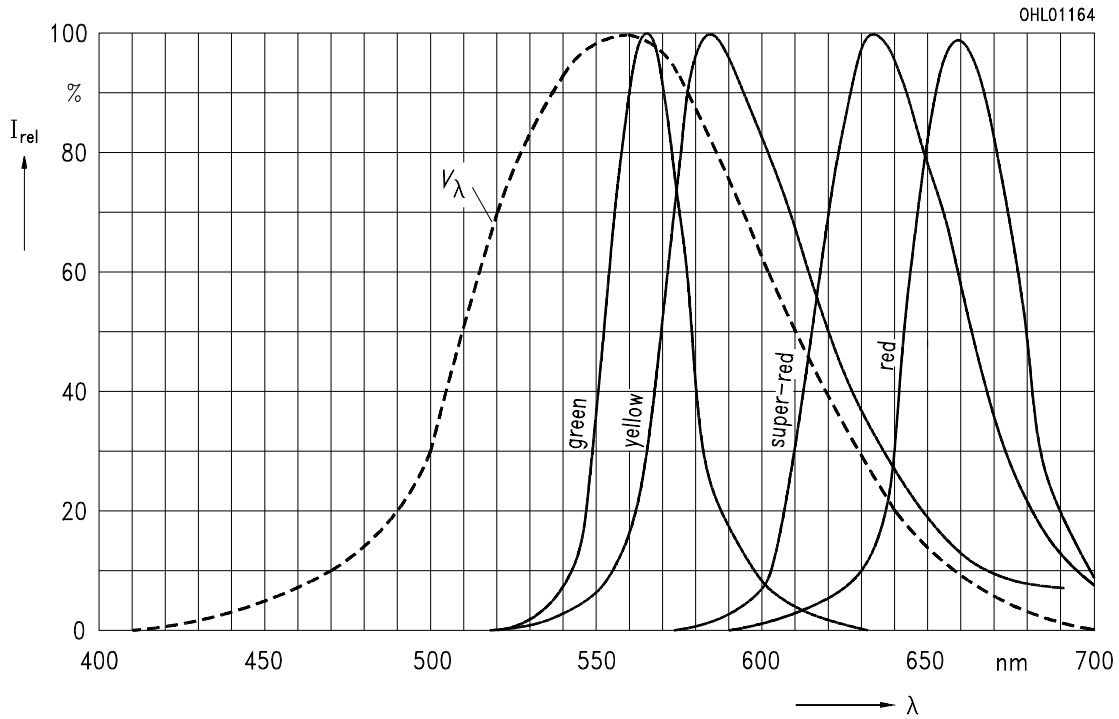
Bezeichnung Parameter	Symbol Symbol	Werte Values				Einheit Unit
		LR	LS	LY	LG	
Wellenlänge des emittierten Lichtes Wavelength at peak emission $I_F = 20\text{ mA}$	(typ.) λ_{peak} (typ.)	660	635	586	565	nm
Dominantwellenlänge Dominant wavelength $I_F = 20\text{ mA}$	(typ.) λ_{dom} (typ.)	645	628	590	570	nm
Spektrale Bandbreite bei 50 % $I_{\text{rel max}}$ Spectral bandwidth at 50 % $I_{\text{rel max}}$ $I_F = 20\text{ mA}$	(typ.) $\Delta\lambda$ (typ.)	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 Forward voltage $I_F = 10\text{ mA}$	(typ.) V_F (max.) V_F	1.6 2.0	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom Reverse current $V_R = 5\text{ V}$	(typ.) I_R (max.) I_R	0.01 10	0.01 10	0.01 10	0.01 10	μA μA
Kapazität Capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	(typ.) C_0	25	12	10	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % I_V from 90 % to 10 % $I_F = 100\text{ mA}, t_p = 10\text{ }\mu\text{s}, R_L = 50\text{ }\Omega$	(typ.) t_r (typ.) 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

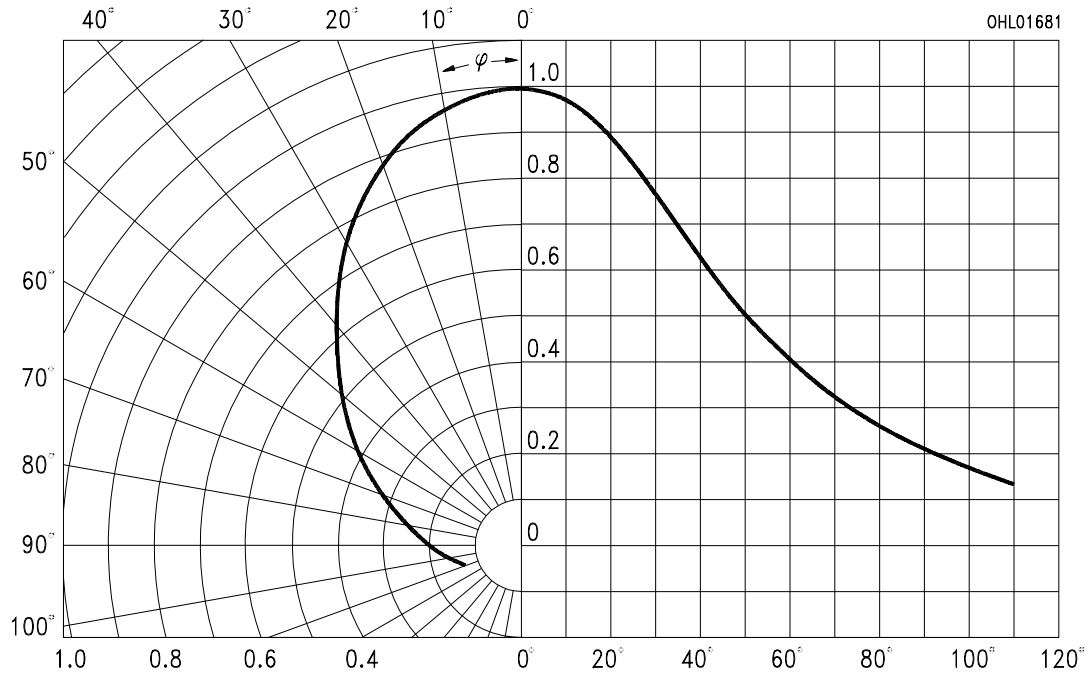
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve

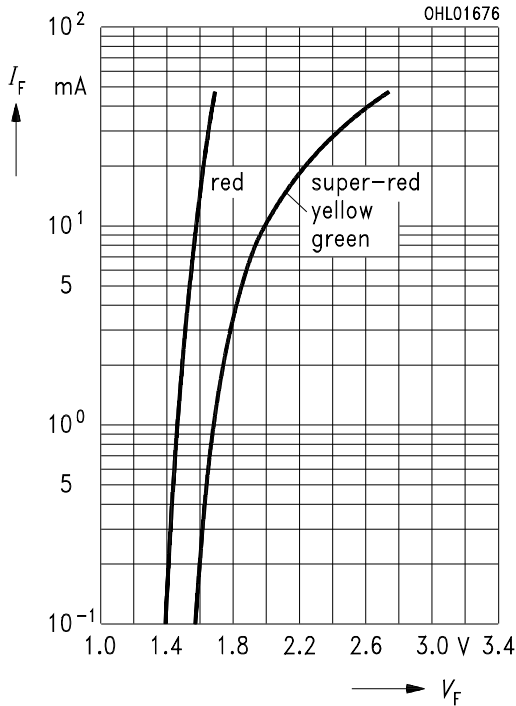


Abstrahlcharakteristik $I_{rel} = f(\varphi)$

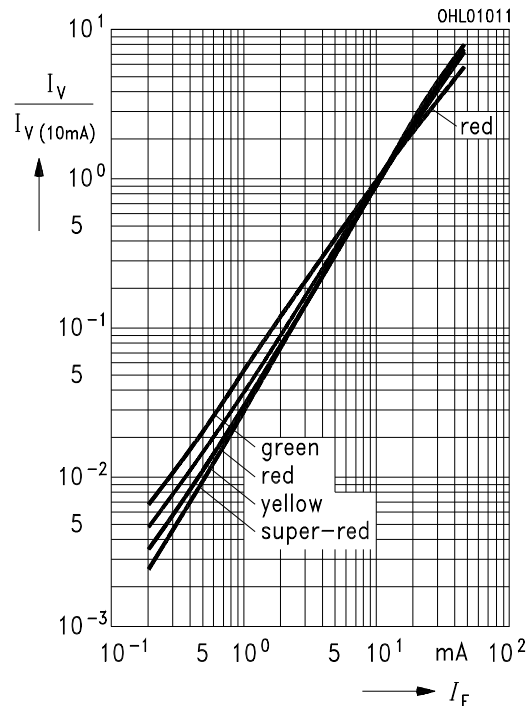
Radiation characteristic



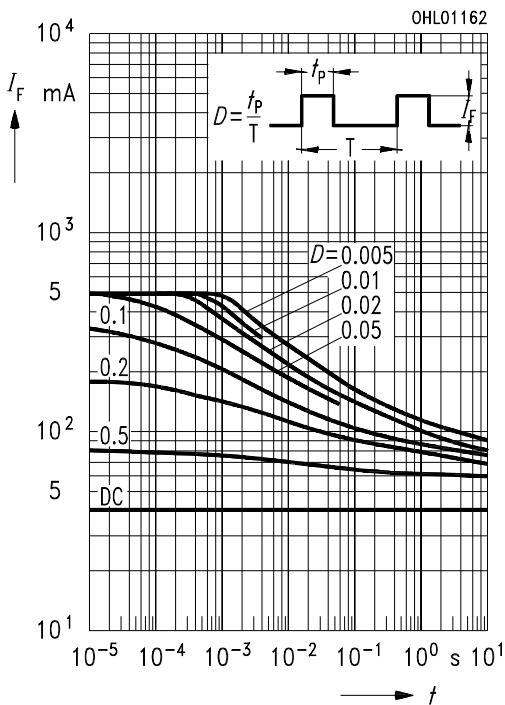
Durchlaßstrom $I_F = f(V_F)$
Forward current
 $T_A = 25\text{ °C}$



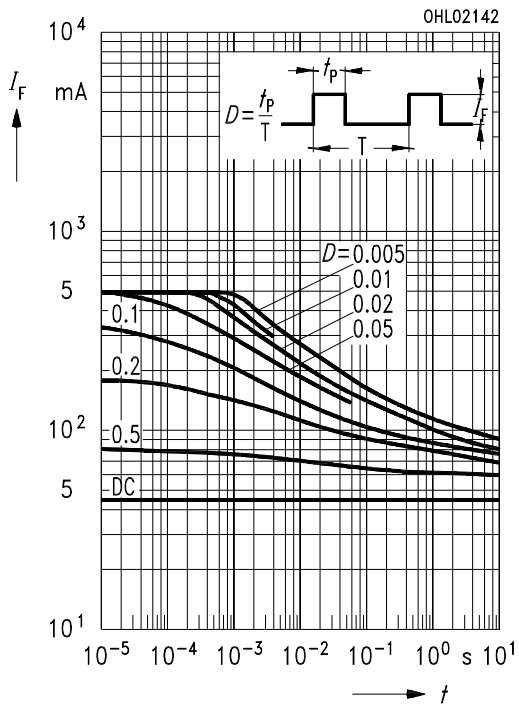
Relative Lichtstärke $I_V/I_{V(10\text{ mA})} = f(I_F)$
Relative luminous intensity
 $T_A = 25\text{ °C}$



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

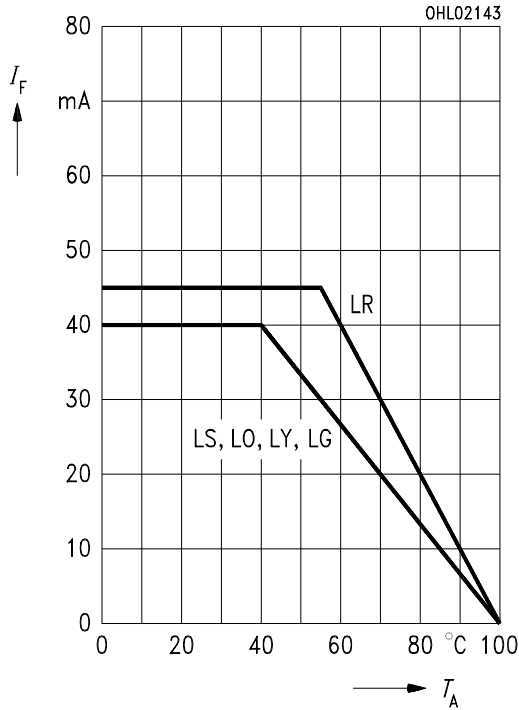


Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle $D = \text{parameter}$, $T_A = 25\text{ °C}$
LR



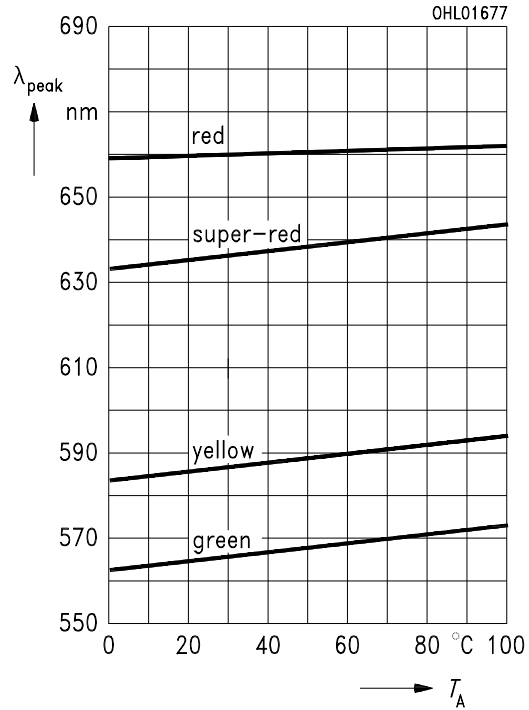
Maximal zulässiger Durchlaßstrom
Max. permissible forward current

$I_F = f(T_A)$



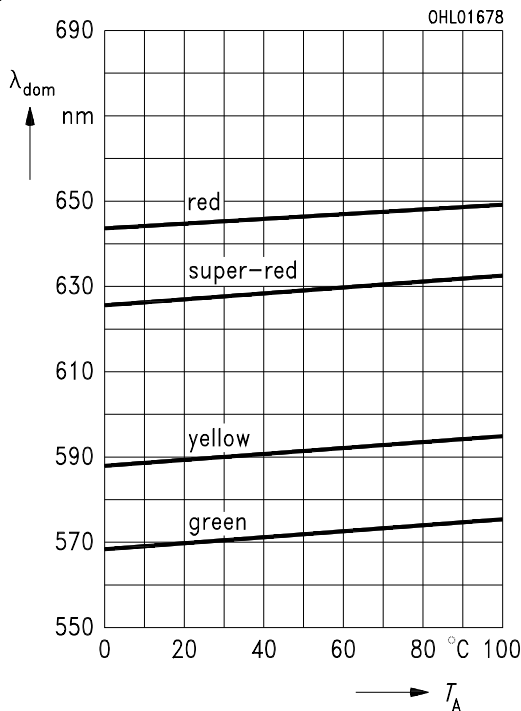
Wellenlänge der Strahlung $\lambda_{\text{peak}} = f(T_A)$
Wavelength at peak emission

$I_F = 20 \text{ mA}$



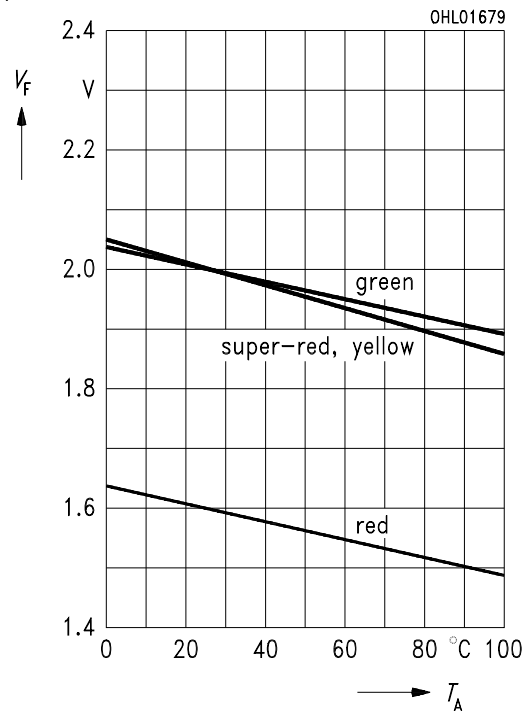
Dominantwellenlänge $\lambda_{\text{dom}} = f(T_A)$
Dominant wavelength

$I_F = 20 \text{ mA}$



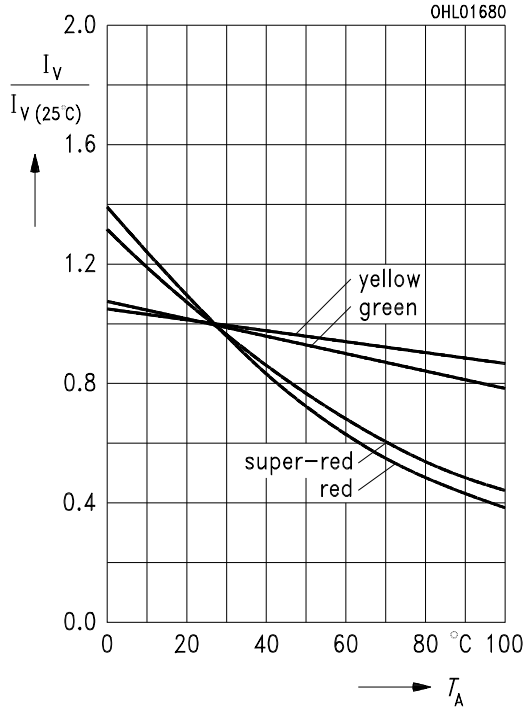
Durchlaßspannung $V_F = f(T_A)$
Forward voltage

$I_F = 10 \text{ mA}$

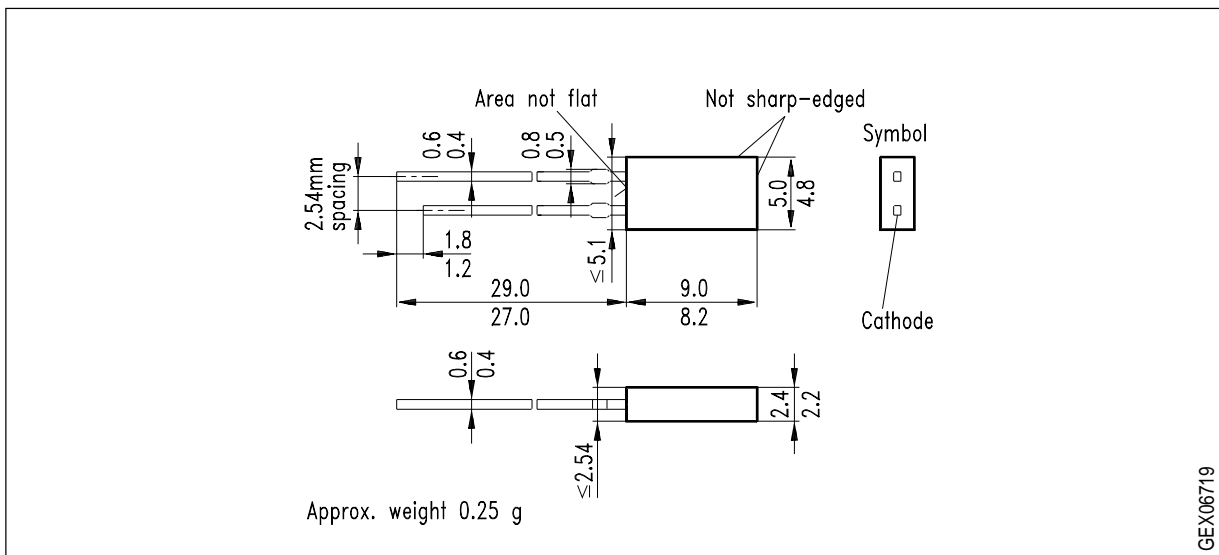


Relative Lichtstärke $I_V/I_{V(25^\circ\text{C})} = f(T_A)$
Relative luminous intensity

$I_F = 10 \text{ mA}$



Maßzeichnung (Maße in mm, wenn nicht anders angegeben)
Package Outlines (Dimensions in mm, unless otherwise specified)



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead