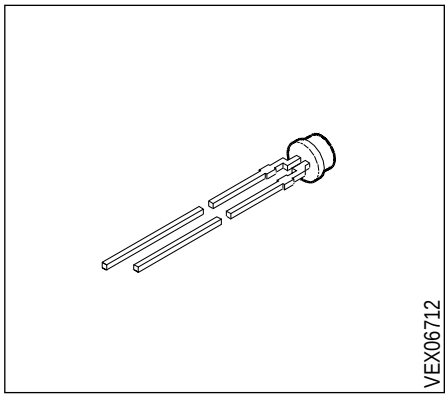
SIEMENS

Hyper ARGUS® LED — LS K376, LA K376, LO K376
Hyper-Bright, 3 mm (T1) LED, Non Diffused — LY K376



Besondere Merkmale

- eingefärbtes, klares Gehäuse
- Kunststoffgehäuse mit spezieller Formgebung
- bei Einsatz eines äußeren Reflektors zur Hintergrundbeleuchtung von Leuchtfeldern und LCD-Anzeigen geeignet.
- zur Direkteinkopplung in Lichtleiterflächen geeignet
- gleichmäßige Ausleuchtung einer Streuscheibe (Weißdruck) vor dem äußeren Reflektor
- Lötspieße mit Aufsetzebene
- gegurtet lieferbar
- Störimpulsfest nach DIN 40839

- **Hinweis:** Bei farbigen Streuscheiben muß die spektrale Transmission an die von der LED emittierte Wellenlänge angepaßt werden.

Features

- colored, clear package
- plasic package with a special design
- in connection with an additional, custom built reflector suitable for backlighting of display panels
- for optical coupling into light pipes
- uniform illumination of a diffuser screen in front of the custom built reflector
- solder leads with stand-off
- available taped on reel
- load dump resistant acc. to DIN 40839

- **Note:** If the diffuser screen is tinted, the spectral transmission must be adjusted to the wavelength emitted by the LED.

Typ Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstrom Luminous Flux I_F = 20 mA Φ_V (mlm)	Bestellnummer Ordering Code
LS K376-QT	super-red	colorless clear	63 ... 500	Q62703-Q3467
LS K376-R			100 ... 200	Q62703-Q3468
LS K376-S			160 ... 320	Q62703-Q3469
LS K376-T			250 ... 500	Q62703-Q3470
LS K376-RU			100 ... 800	Q62703-Q3471
LA K376-RU	amber	colorless clear	100 ... 800	Q62703-Q3735
LA K376-S			160 ... 320	Q62703-Q3737
LA K376-T			250 ... 500	Q62703-Q3738
LA K376-U			400 ... 800	Q62703-Q3739
LA K376-SV			160 ... 1250	Q62703-Q3736
LO K376-RU	orange	colorless clear	100 ... 800	Q62703-Q3472
LO K376-S			160 ... 320	Q62703-Q3473
LO K376-T			250 ... 500	Q62703-Q3474
LO K376-U			400 ... 800	Q62703-Q3475
LO K376-SV			160 ... 1250	Q62703-Q3476
LY K376-RU	yellow	colorless clear	100 ... 800	Q62703-Q3477
LY K376-S			160 ... 320	Q62703-Q3478
LY K376-T			250 ... 500	Q62703-Q3479
LY K376-U			400 ... 800	Q62703-Q3480
LY K376-SV			160 ... 1250	Q62703-Q3481

Streuung des Lichtstromes in einer Verpackungseinheit $\Phi_{V\,max} / \Phi_{V\,min} \leq 2.0$.
Luminous flux ratio in one packaging unit $\Phi_{V\,max} / \Phi_{V\,min} \leq 2.0$.

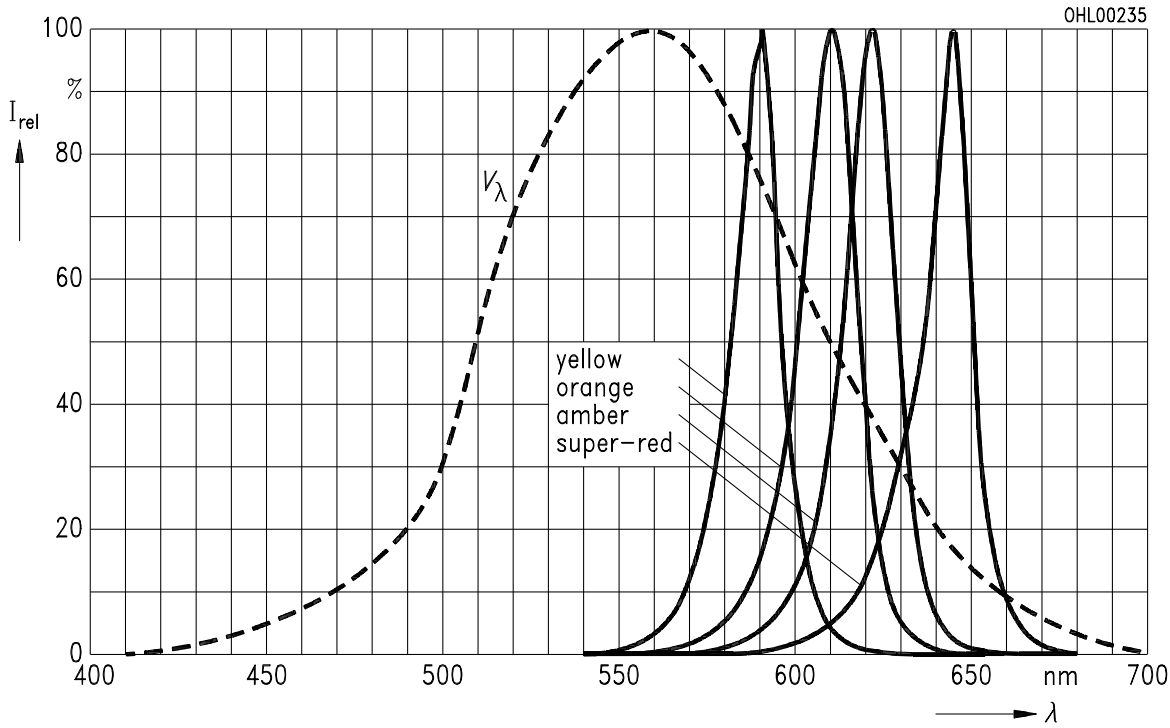
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**		**Einheit** **Unit**
		LS, LO, LA	**LY**	
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	30	20	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	to be defined		A
Sperrspannung Reverse voltage	V_R	3		V
Verlustleistung Power dissipation $T_A \leq 25$ °C	P_{tot}	80	55	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air	$R_{th\ JA}$	500		K/W

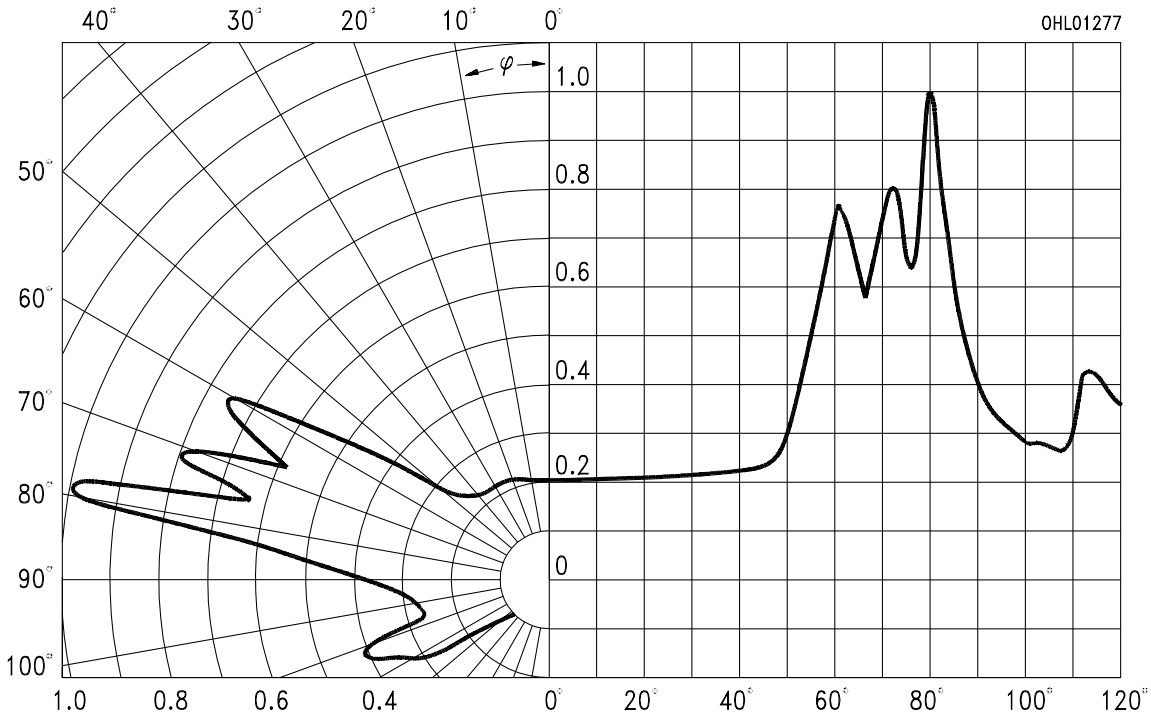
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung **Parameter**		**Symbol** **Symbol**	**Werte** **Values**				**Einheit** **Unit**
			LS	**LA**	**LO**	**LY**	
Wellenlänge des emittierten Lichtes Wavelength at peak emission I_F = 20 mA	(typ.) (typ.)	λ_{peak}	645	622	610	591	nm
Dominantwellenlänge Dominant wavelength I_F = 20 mA	(typ.) (typ.)	λ_{dom}	632	615	605	587	nm
Spektrale Bandbreite bei 50% $I_{rel\ max}$ Spectral bandwidth at 50% $I_{rel\ max}$ I_F = 20 mA	(typ.) (typ.)	$\Delta\lambda$	16	16	16	15	nm
Durchlaßspannung Forward voltage I_F = 20 mA	(typ.) (max.)	V_F V_F	2.0 2.6	2.0 2.6	2.0 2.6	2.0 2.6	V V
Sperrstrom Reverse current V_R = 3 V	(typ.) (max.)	I_R I_R	0.01 10	0.01 10	0.01 10	0.01 10	µA µA
Temperaturkoeffizient von λ_{dom} (I_F = 20 mA) Temperature coefficient of λ_{dom} (I_F = 20 mA)		TC_λ	0.014	0.062	0.067	0.096	nm/K
Temperaturkoeffizient von λ_{peak}, I_F = 20 mA Temperature coefficient of λ_{peak}, I_F = 20 mA	(typ.) (typ.)	TC_λ	0.14	0.13	0.13	0.13	nm/K
Temperaturkoeffizient von V_F, I_F = 20 mA Temperature coefficient of V_F, I_F = 20 mA	(typ.) (typ.)	TC_V	– 1.95	– 1.78	– 1.67	– 2.51	mV/K

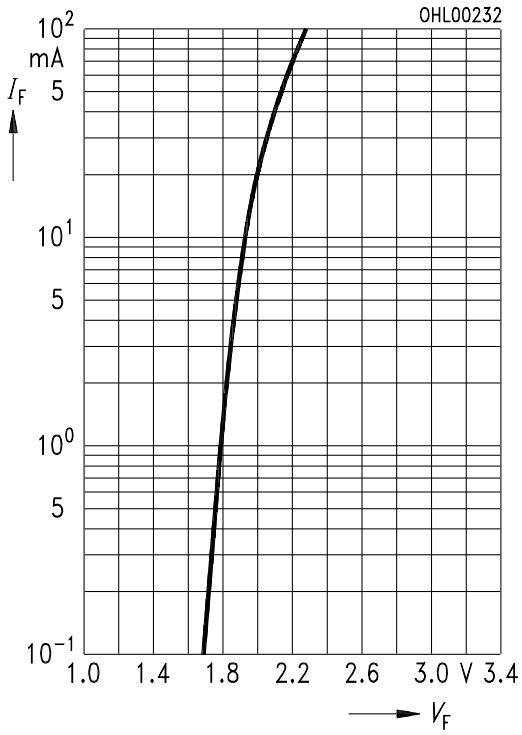
Relative spektrale Emission $\Phi_{rel} = f(\lambda)$, T_A = 25 °C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



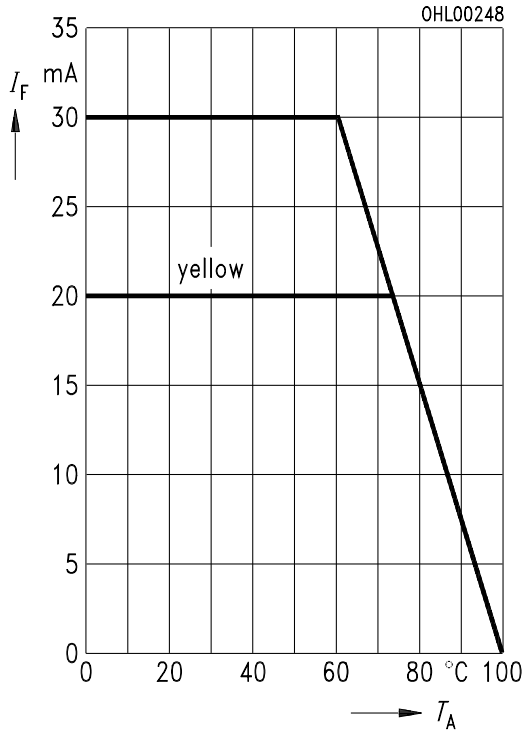
Abstrahlcharakteristik $\Phi_{rel} = f(\varphi)$
Radiation characteristic



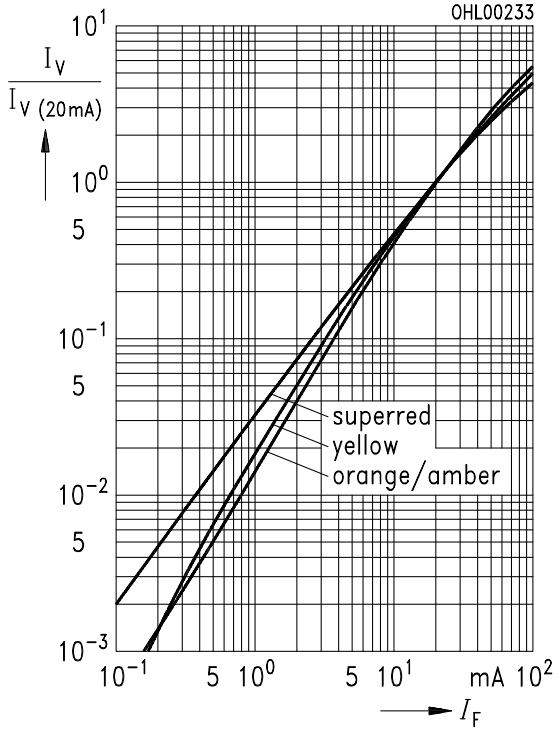
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 °C



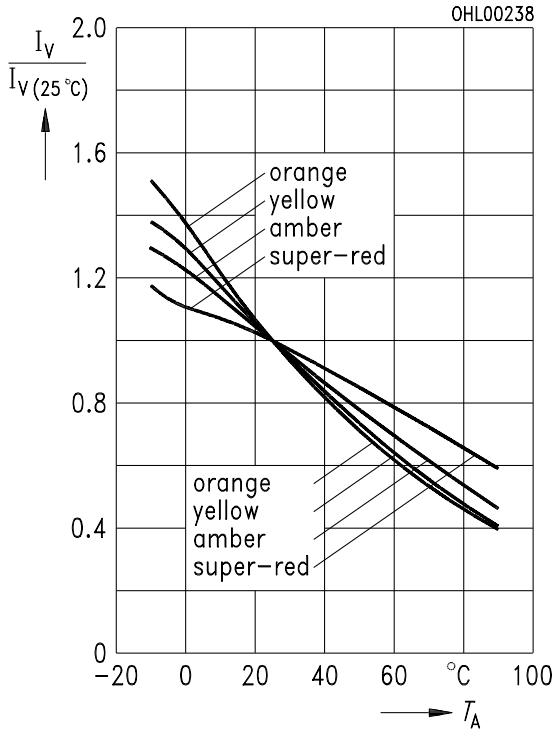
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



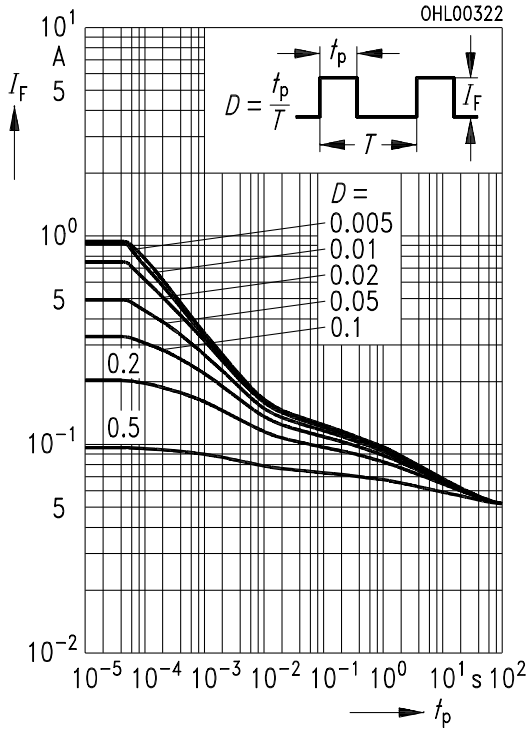
Relativer Lichtstrom $\Phi_V/\Phi_{V\,(20\ mA)} = f(I_F)$
Relative luminous flux
T_A = 25 °C



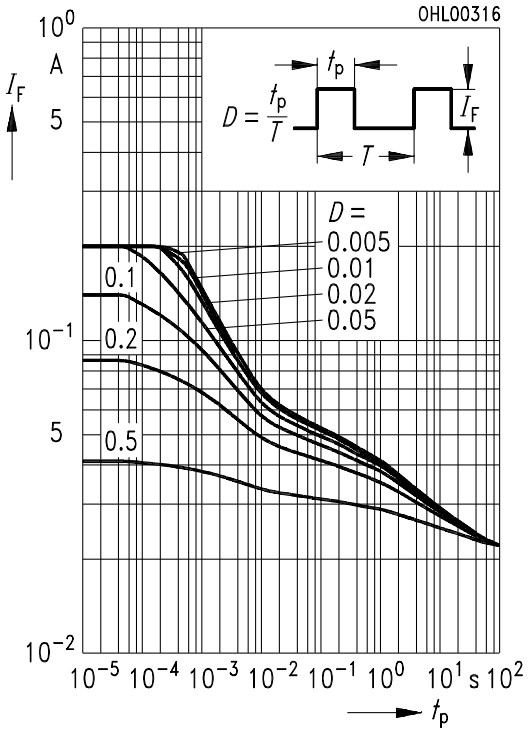
Relativer Lichtstrom $\Phi_V / \Phi_{V(25°C)} = f(T_A)$
Relative luminous flux
I_F = 20 mA



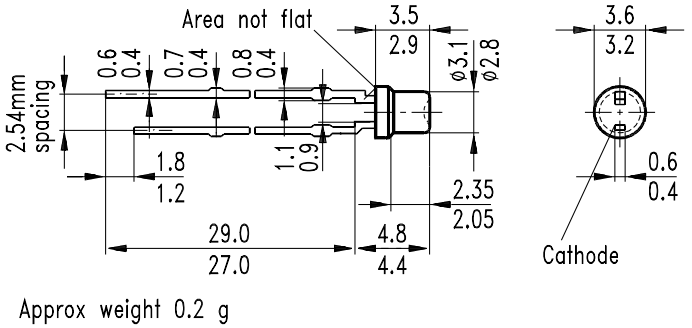
Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
LS, LA, LO
Duty cycle D = parameter, T_A = 25 °C



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$
Permissible pulse handling capability
LY
Duty cycle D = parameter, T_A = 25 °C



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



Kathodenkennzeichnung: Kürzerer Lötspieß
Cathode mark: Short solder lead