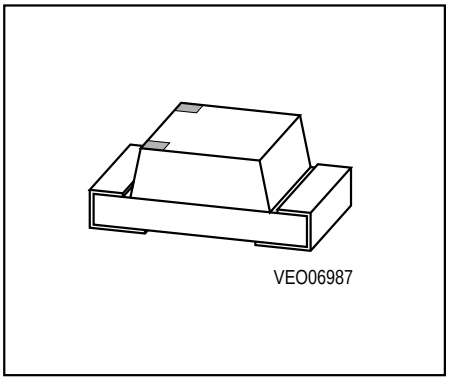
SIEMENS

CHIPLED

LY R976, LO R976, LS R976

Besondere Merkmale

- Gehäusebauform: 0805
- Industriestandard bzgl. Lötpadraster
- geringe Bauteilhöhe
- für IR-Lötung geeignet
- für Hinterleuchtungen und als opt. Indikator einsetzbar
- gegurtet (8-mm-Filmgurt)



Features

- 0805 package
- Industry standard footprint
- low profile
- suitable for IR reflow soldering process
- for use as optical indicator and backlighting
- available taped on reel (8 mm tape)

Typ **Type**	**Emissions-farbe** **Color of Emission**	**Farbe der Lichtaustritts-fläche** **Color of the Light Emitting Area**	**Lichtstärke** **Luminous Intensity** I_F **= 20 mA** I_V **(mcd)**	**Lichtstrom** **Luminous Flux** I_F **= 20 mA** Φ_V **(mlm)**	**Bestellnummer** **Ordering Code**
LY R976-MO	yellow	colorless clear	≥ 16 (30 typ.)	250 (typ.)	Q62702-P5105
LO R976-NO	orange		≥ 25 (55 typ.)	450 (typ.)	Q62702-P5101
LS R976-NO	super-red		≥ 25 (55 (typ.)	450 (typ.)	Q62702-P5103

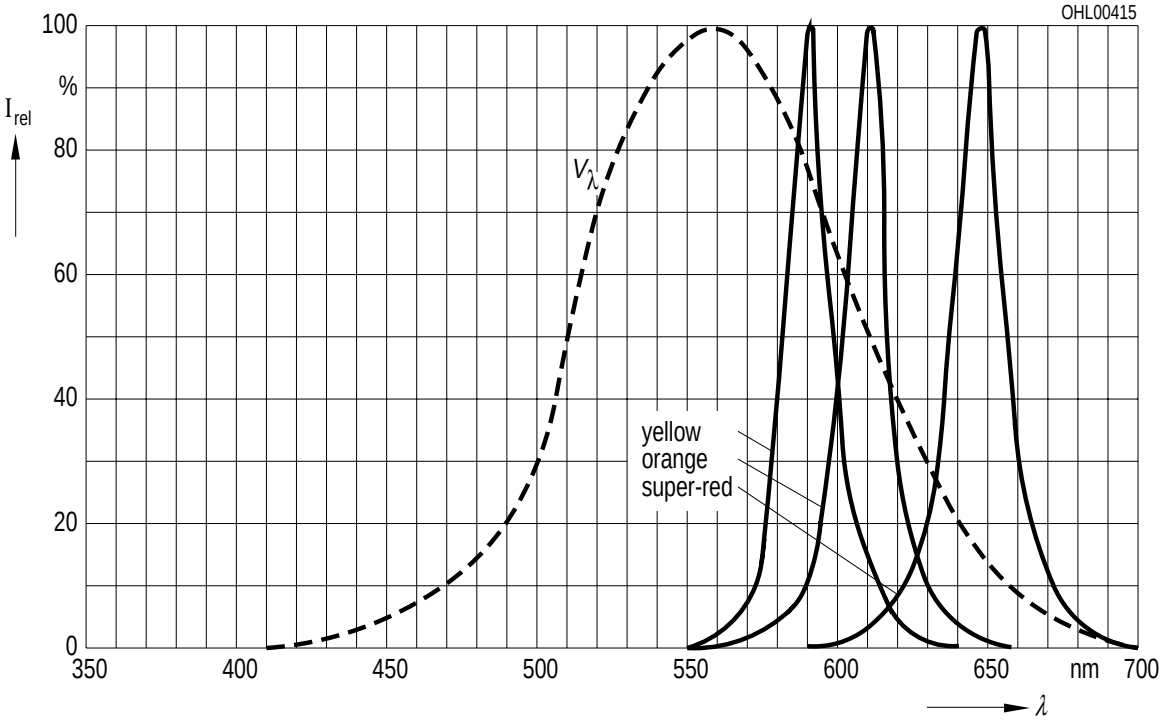
Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**	**Einheit** **Unit**
Betriebstemperatur Operating temperature range	T_{op}	– 30 ... + 85	˚C
Lagertemperatur Storage temperature range	T_{stg}	– 40 ... + 85	˚C
Sperrschichttemperatur Junction temperature	T_j	+ 95	˚C
Durchlaßstrom Forward current	I_F	25	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	0.1	A
Sperrspanung Reverse voltage	V_R	3	V
Verlustleistung, $T_A = 25$ ˚C Power dissipation, $T_A = 25$ ˚C	P_{tot}	70	mW
Wärmewiderstand Sperrschicht / Umgebung Thermal resistance Junction / air	$R_{th\ JA}$	700	K/W

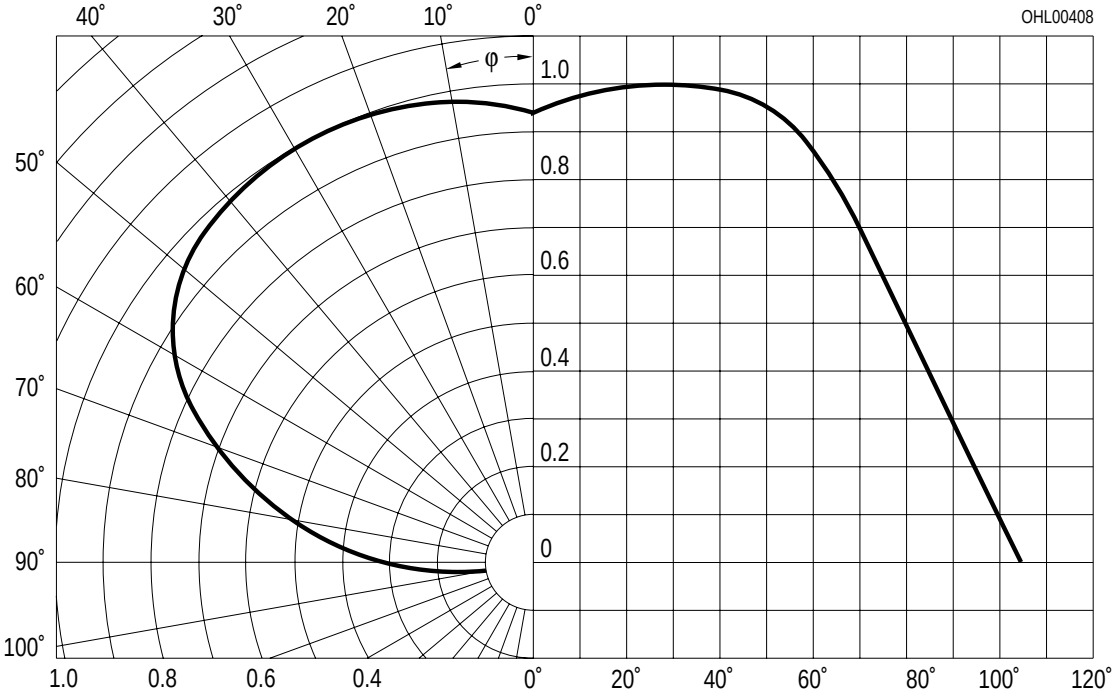
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**		**Symbol** **Symbol**	**Werte** **Values**			**Einheit** **Unit**
			LY	**LO**	**LS**	
Wellenlänge des emittierten Lichtes Wavelength at peak emission I_F = 20 mA	(typ.)	λ_{peak}	591	610	645	nm
Dominantwellenlänge Dominant wavelength I_F = 20 mA	(typ.)	λ_{dom}	587	605	632	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ Spectral bandwidth at 50 % $I_{rel\ max}$ I_F = 20 mA	(typ.)	$\Delta\lambda$	15	16	16	nm
Abstrahlwinkel bei 50 % I_v (Vollwinkel) Viewing angle at 50 % I_v		2φ	160	160	160	Grad deg.
Durchlaßspannung Forward voltage I_F = 20 mA I_F = 20 mA	(typ.) (max.)	V_F V_F	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	µA µA
Temperaturkoeffizient von λ_{peak} Temperature coefficient of λ_{peak} I_F = 20 mA	(typ.)	$TC_{\lambda peak}$	0.13	0.13	0.14	nm/K
Temperaturkoeffizient von λ_{dom}, Temperature coefficient of λ_{dom}, I_F = 20 mA	(typ.)	$TC_{\lambda dom}$	0.10	0.07	0.01	nm/K
Temperaturkoeffizient von V_F, Temperature coefficient of V_F, I_F = 20 mA	(typ.)	TC_{VF}	– 2.5	– 1.7	– 2.0	mV/K

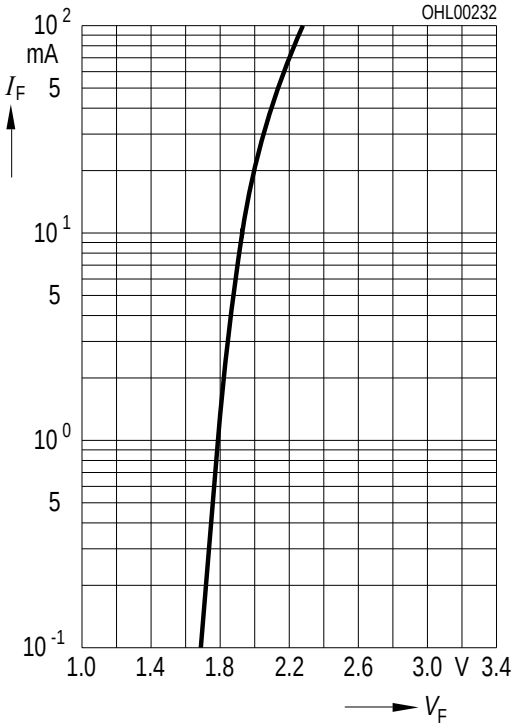
Relative spektrale Emission $I_{rel} = f(\lambda)$, $T_A = 25$ °C, $I_F = 20$ mA
Relative spectral emission
V(λ) = spektrale Augenempfindlichkeit
Standard eye response curve



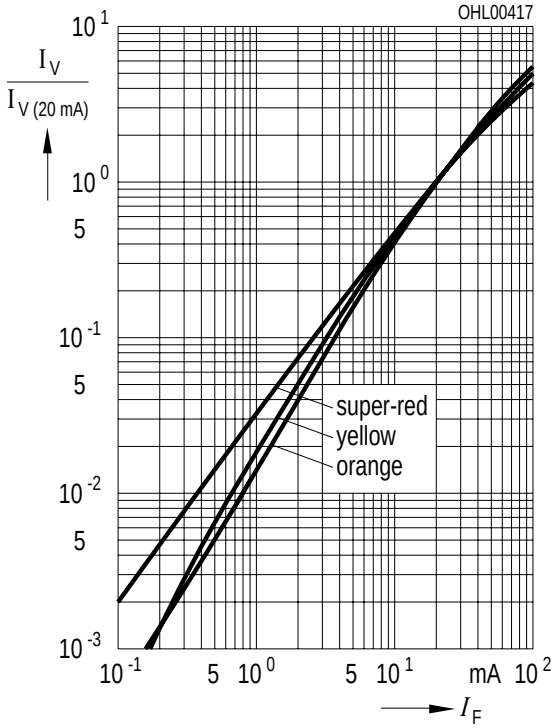
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



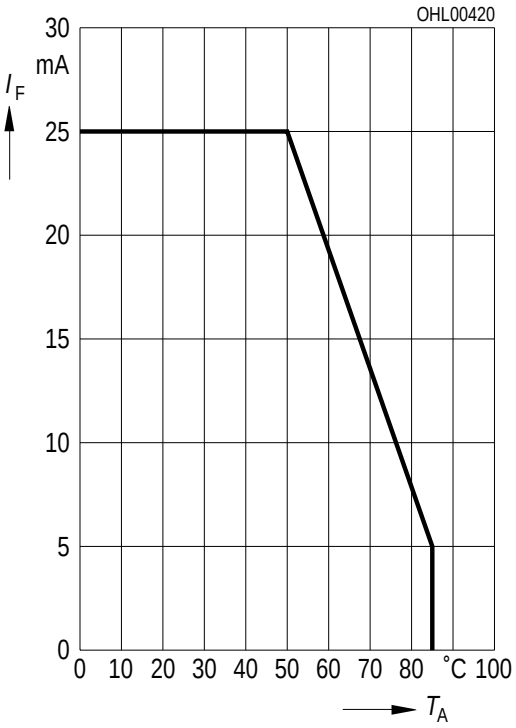
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ˚C



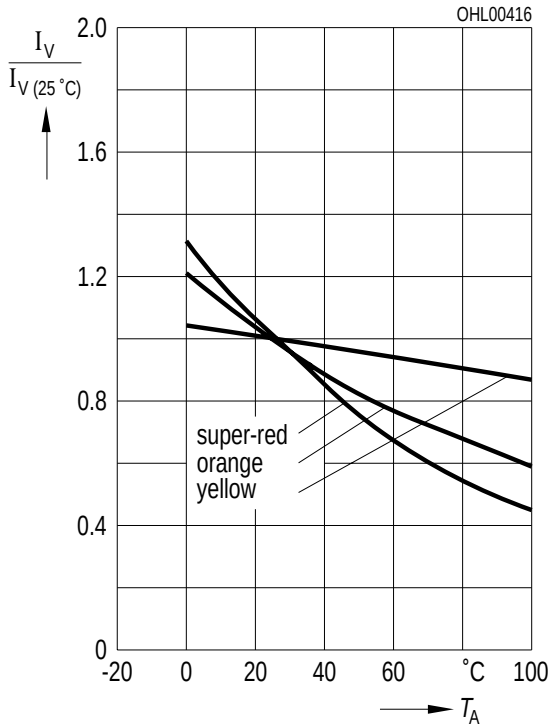
Relative Lichtstärke $I_V/I_{V(20\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ˚C



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



Relative Lichtstärke $I_V / I_{V(25\ ˚C)} = f(T_A)$
Relative luminous intensity
I_F = 20 mA



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