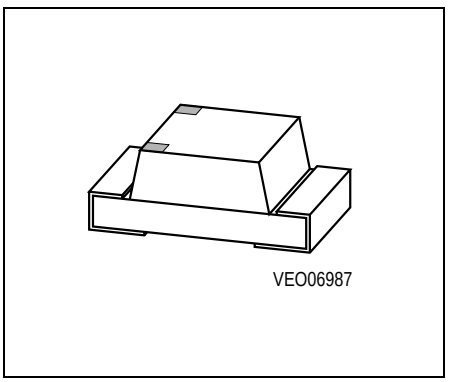
SIEMENS

CHIPLED

LY R970, LO R970, LS R970

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 R970-JO	yellow	colorless clear	≥ 4.0 (7 typ.)	60 (typ.)	Q62702-P5104
LO R970-JO	orange		≥ 4.0 (7 typ.)	60 (typ.)	Q62702-P5100
LS R970-JO	super-red		≥ 4.0 (7 typ.)	60 (typ.)	Q62702-P5102

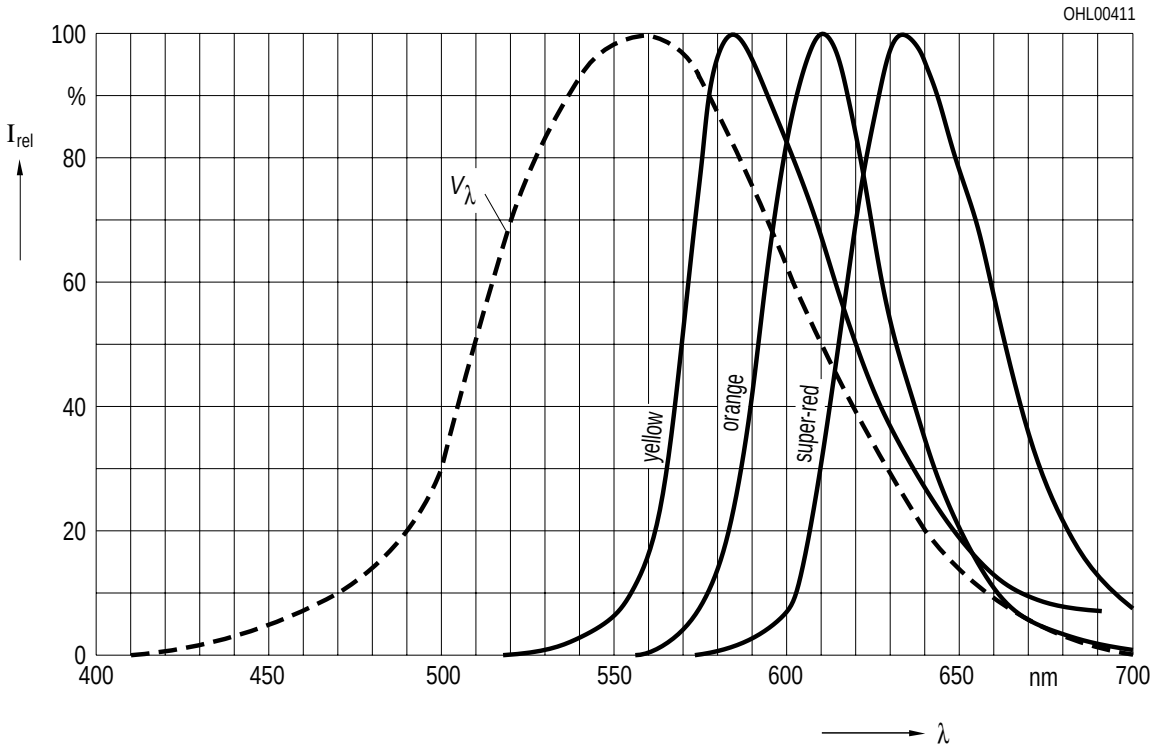
Grenzwerte
Maximum Ratings

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	5	V
Verlustleistung, $T_A = 25$ °C Power dissipation, $T_A = 25$ °C	P_{tot}	75	mW
Wärmewiderstand Sperrschicht / Umgebung Thermal resistance Junction / air	$R_{th\ JA}$	610	K/W

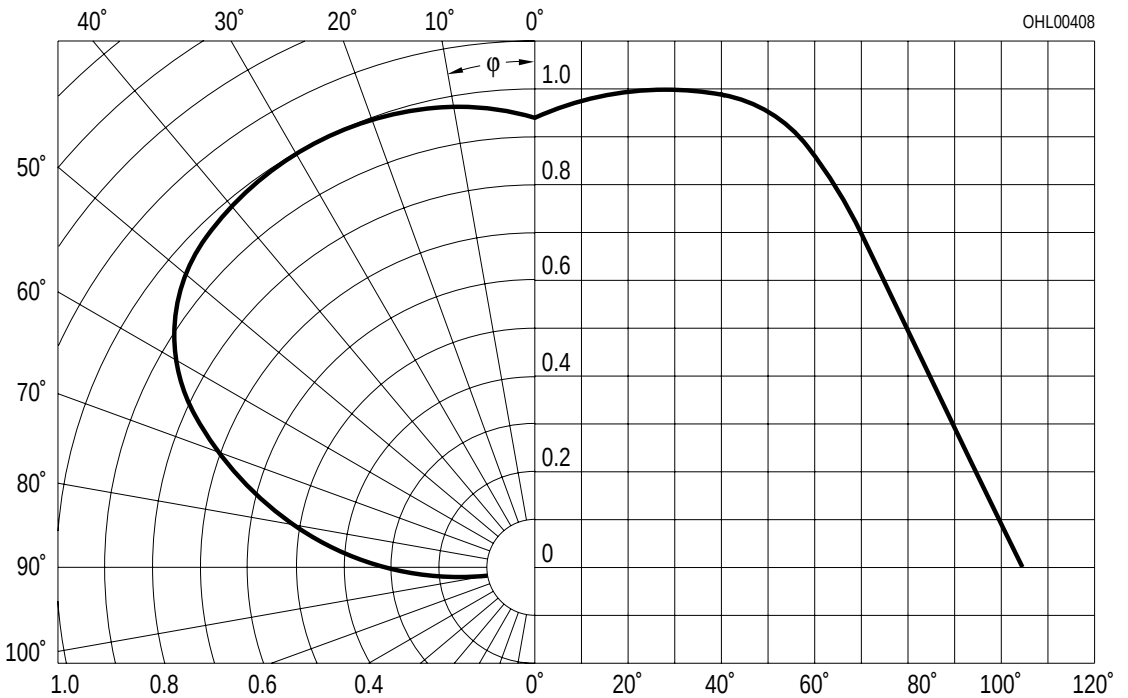
Kennwerte (T_A = 25 °C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**			**Einheit** **Unit**
		LY	**LO**	**LS**	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 20 mA	λ_{peak}	586	610	635	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 20 mA	λ_{dom}	590	605	628	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $I_{rel\ max}$ (typ.) I_F = 20 mA	$\Delta\lambda$	45	40	45	nm
Abstrahlwinkel bei 50 % I_v (Vollwinkel) Viewing angle at 50 % I_v	2φ	160	160	160	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 20 mA	V_F V_F	2.3 2.9	2.3 2.9	2.3 2.9	V V
Sperrstrom (typ.) Reverse current (max.) V_R = 5 V	I_R I_R	0.01 10	0.01 10	0.01 10	µA µA
Temperaturkoeffizient von λ_{peak} (I_F = 20 mA) (typ.) Temperature coefficient of λ_{peak} (I_F = 20 mA) (typ.)	$TC_{\lambda peak}$	0.1	0.1	0.1	nm/K
Temperaturkoeffizient von λ_{dom}, I_F = 20 mA (typ.) Temperature coefficient of λ_{dom}, I_F = 20 mA (typ.)	$TC_{\lambda dom}$	0.08	0.08	0.08	nm/K
Temperaturkoeffizient von V_F, I_F = 20 mA (typ.) Temperature coefficient of V_F, I_F = 20 mA (typ.)	TC_{VF}	– 1.9	– 1.9	– 1.9	mV/K

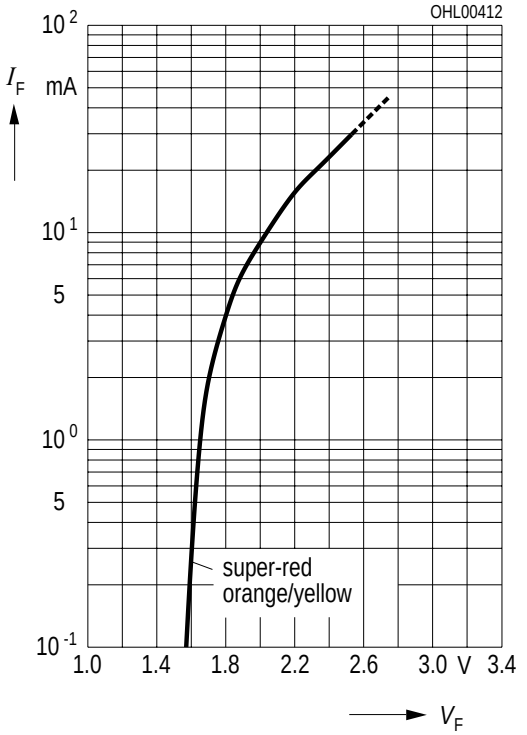
Relative spektrale Emission $I_{rel} = f(\lambda)$, $T_A = 25$ °C, $I_F = 20$ mA
Relative spectral emission
V(λ) = spektrale Augenempfindlichkeit
Standard eye response curve



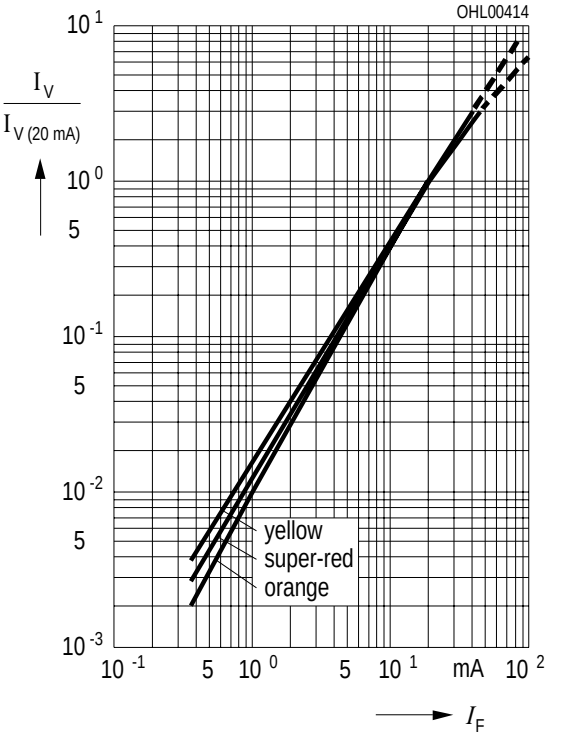
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



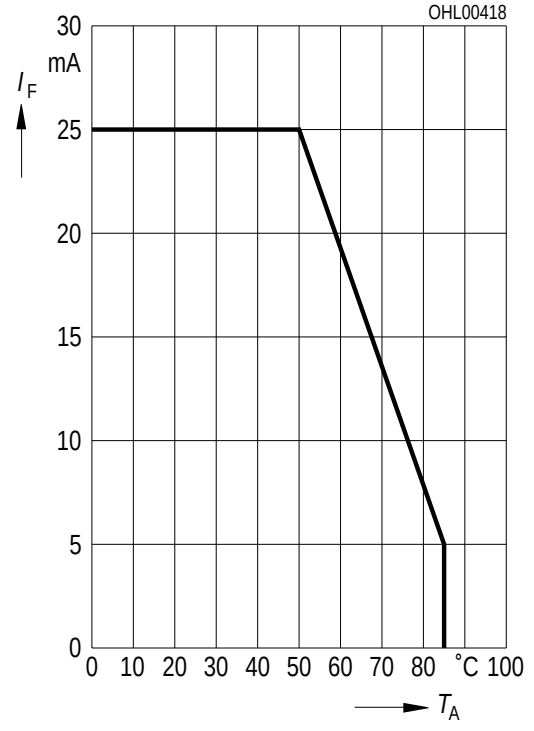
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 °C



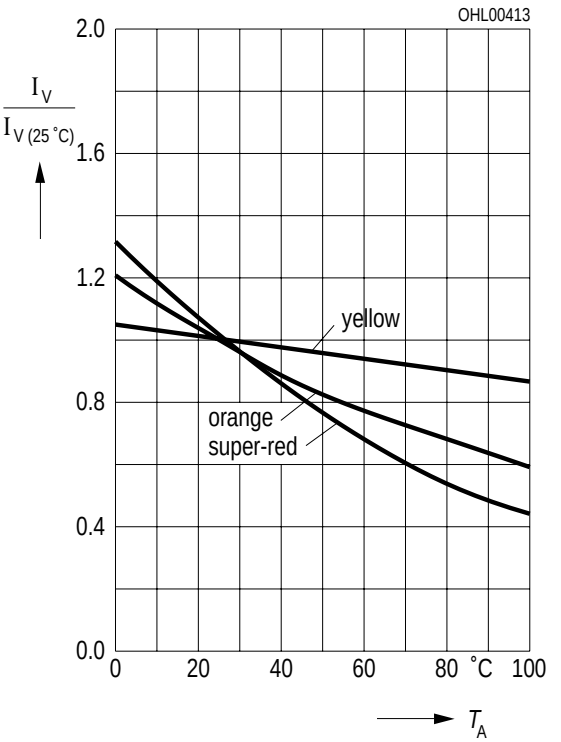
Relative Lichtstärke $I_V/I_{V(20\ mA)} = f(I_F)$
Relative luminous intensity T_A = 25 °C



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)