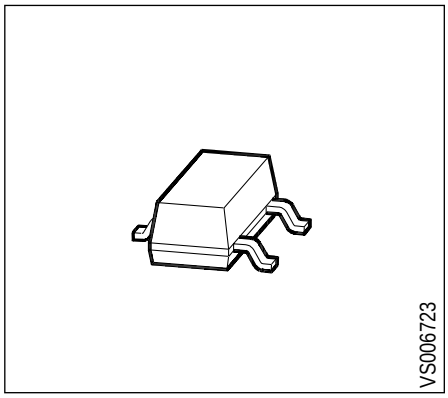
SIEMENS

SOT-23 MULTILED®, Diffused — LU S250, LV S260, LW S260

Besondere Merkmale

- eingefärbtes, diffuses Gehäuse
- extrem weitwinklig
- als optischer Indikator einsetzbar
- für alle SMT-Bestück- und Löttechniken geeignet
- beide Farben getrennt ansteuerbar
- gegurtet (8-mm-Filmgurt)
- Störimpulsfest nach DIN 40838



Features

- colored, diffused package
- extreme wide-angle LED
- for use as optical indicator
- suitable for all SMT assembly and soldering methods
- both colors can be controlled separately
- available taped on reel (8 mm tape)
- load dump resistant acc. to DIN 40839

Typ **Type**	**Emissionsfarbe** **Color of Emission**	**Gehäusefarbe** **Color of Package**	**Lichtstärke** **Luminous Intensity** I_F **= 10 mA** I_V **(mcd)**	**Bestellnummer** **Ordering Code**
LU S250-DO	super-red/green	colorless diffused	≥ 0.4	Q62703-Q1642
LV S260-DO	super-red/ super-red	red diffused	≥ 0.4	Q62703-Q2067
LW S260-DO	green/green	green diffused	≥ 0.4	Q62703-Q1038

Streuung der Lichtstärke in einer Verpackungseinheit $I_{V\,max}$ / $I_{V\,min}$ ≤ 2.0.
Luminous intensity ratio in one packaging unit $I_{V\,max}$ / $I_{V\,min}$ ≤ 2.0.

Grenzwerte
Maximum Ratings

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**	**Einheit** **Unit**
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	mA
Stoßstrom Surge current $t \leq 10$ µs, $D = 0.005$	I_{FM}	0.5	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25$ ˚C	P_{tot}	100	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air [1)]	$R_{th\ JA}$	750	K/W

1) Auf Platine gelötet: Lötfläche ≥ 16 cm².
1) Soldered on PC board: pad size ≥ 16 cm².

Notes

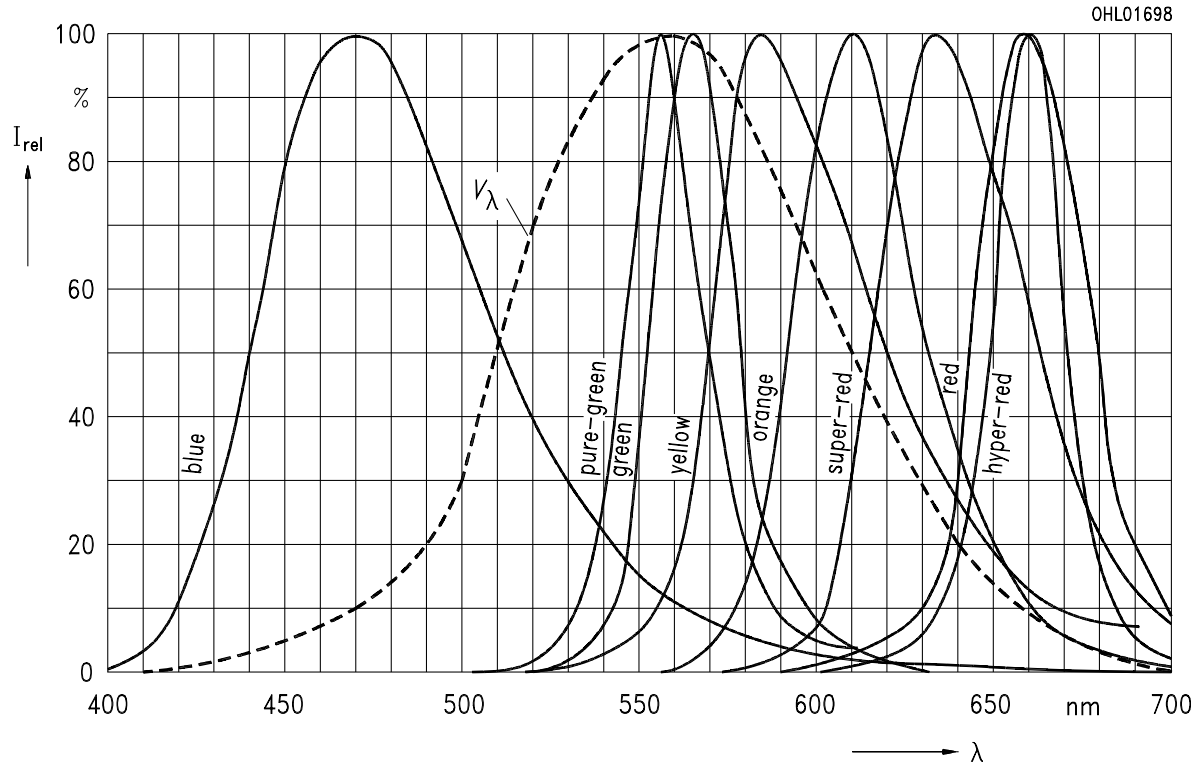
Die angegebenen Grenzdaten gelten für einen Chip.

The stated maximum ratings refer to one chip.

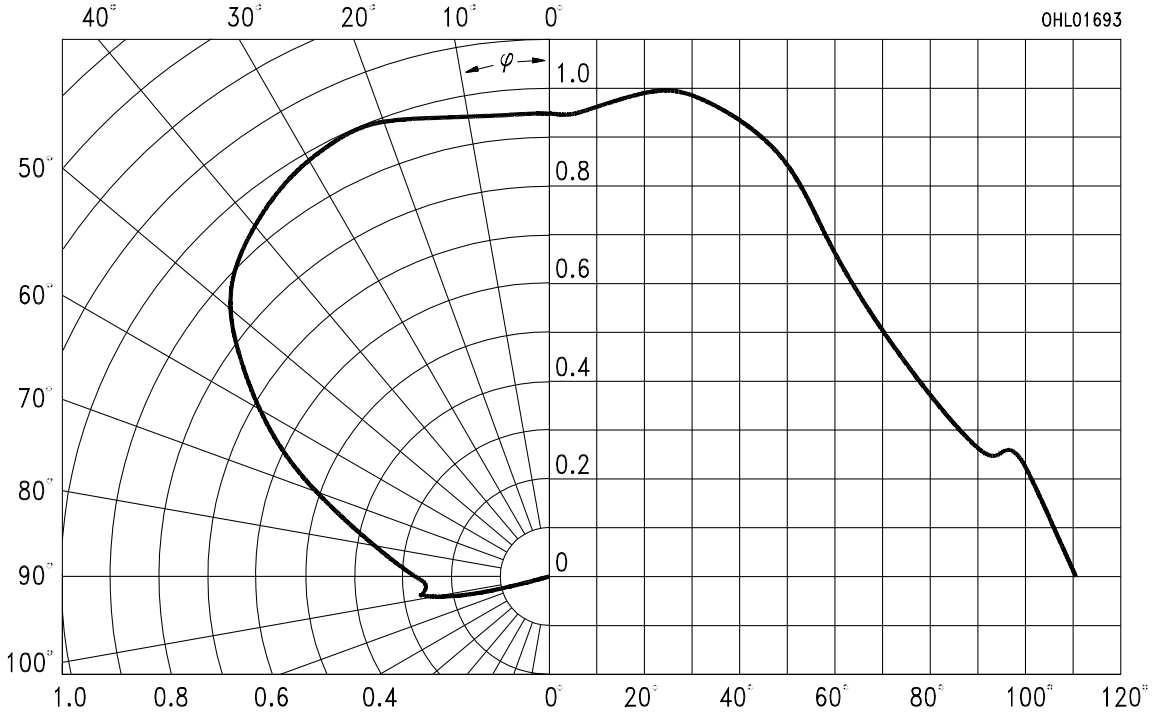
Kennwerte (T_A = 25 ˚C)
Characteristics

Bezeichnung **Parameter**	**Symbol** **Symbol**	**Werte** **Values**		**Einheit** **Unit**
		super-red	**green**	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) I_F = 20 mA	λ_{peak}	635	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) I_F = 20 mA	λ_{dom}	628	570	nm
Spektrale Bandbreite bei 50 % $I_{rel\ max}$ (typ.) Spectral bandwidth at 50 % $I_{rel\ max}$ (typ.) I_F = 20 mA	$\Delta\lambda$	45	25	nm
Abstrahlwinkel bei 50 % I_V (Vollwinkel) Viewing angle at 50 % I_V	2φ	140	140	Grad deg.
Durchlaßspannung (typ.) Forward voltage (max.) I_F = 10 mA	V_F V_F	2.0 2.6	2.0 2.6	V V
Sperrstrom (typ.) Reverse current (max.) V_R = 5 V	I_R I_R	0.01 10	0.01 10	µA µA
Kapazität (typ.) Capacitance V_R = 0 V, f = 1 MHz	C_0	12	15	pF
Schaltzeiten: Switching times: I_V from 10 % to 90 % (typ.) I_V from 90 % to 10 % (typ.) I_F = 100 mA, t_P = 10 µs, R_L = 50 Ω	 t_r t_f	 300 150	 450 200	 ns ns

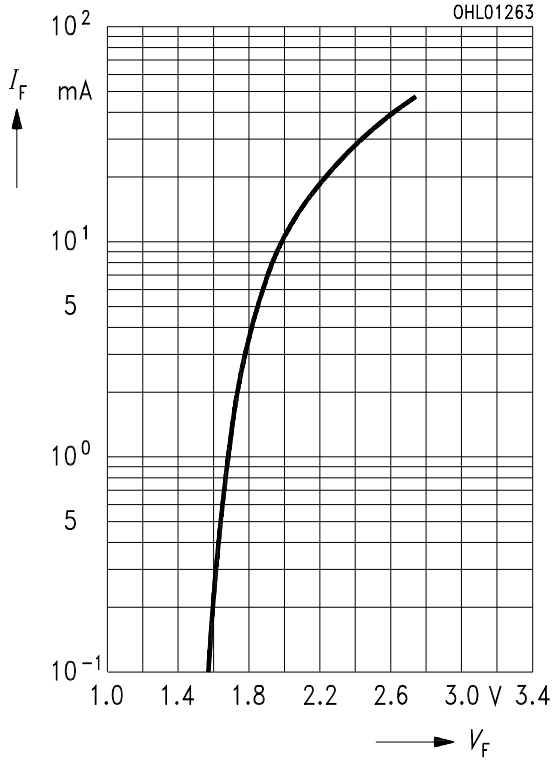
Relative spektrale Emission $I_{rel} = f(\lambda)$, T_A = 25 ˚C, I_F = 20 mA
Relative spectral emission
V (λ) = spektrale Augenempfindlichkeit
Standard eye response curve



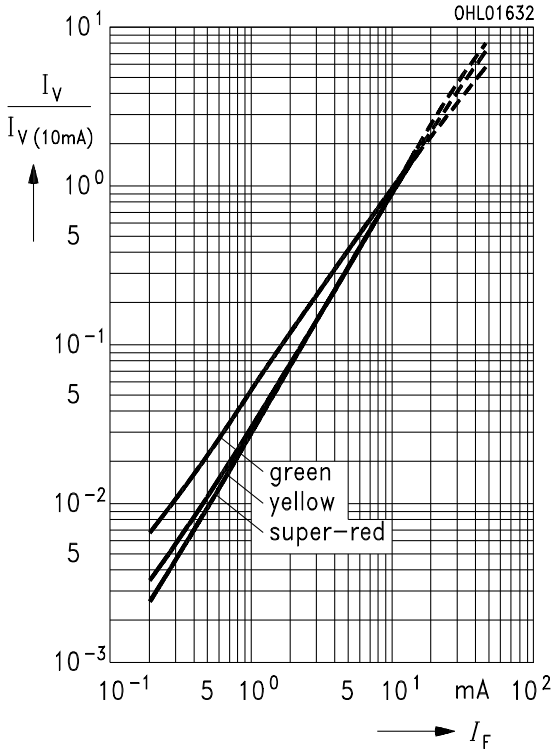
Abstrahlcharakteristik $I_{rel} = f(\varphi)$
Radiation characteristic



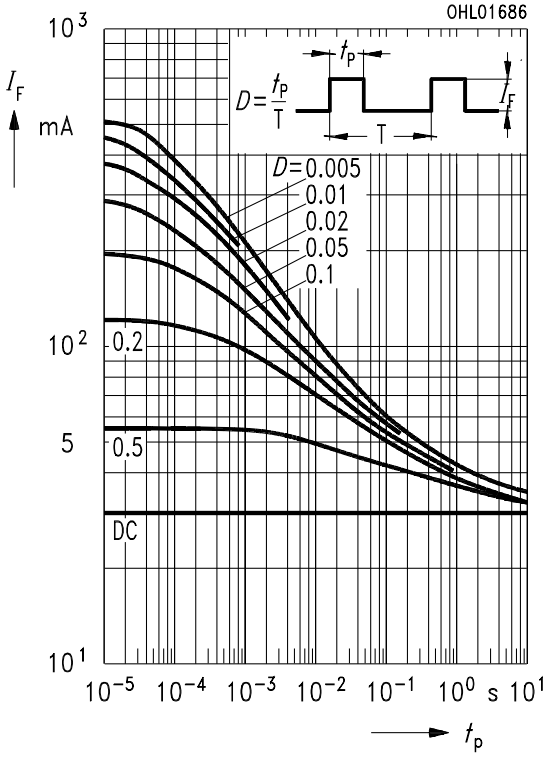
Durchlaßstrom $I_F = f(V_F)$
Forward current
T_A = 25 ℃



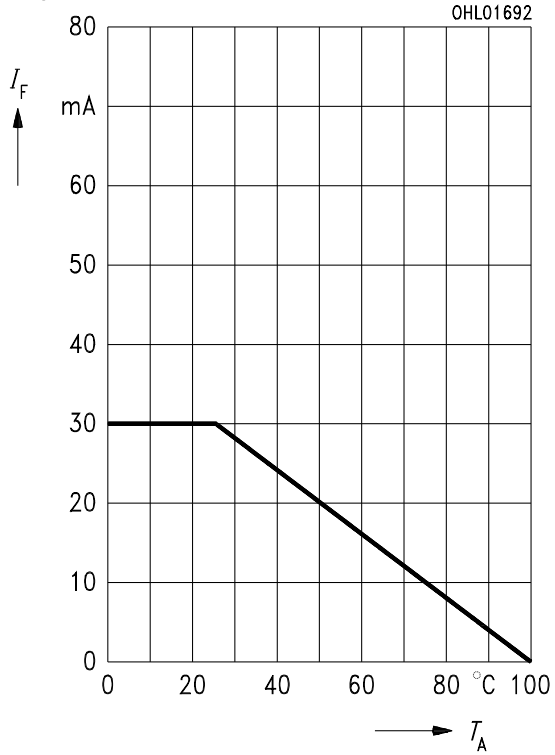
Relative Lichtstärke $I_V/I_{V(10\ mA)} = f(I_F)$
Relative luminous intensity
T_A = 25 ℃



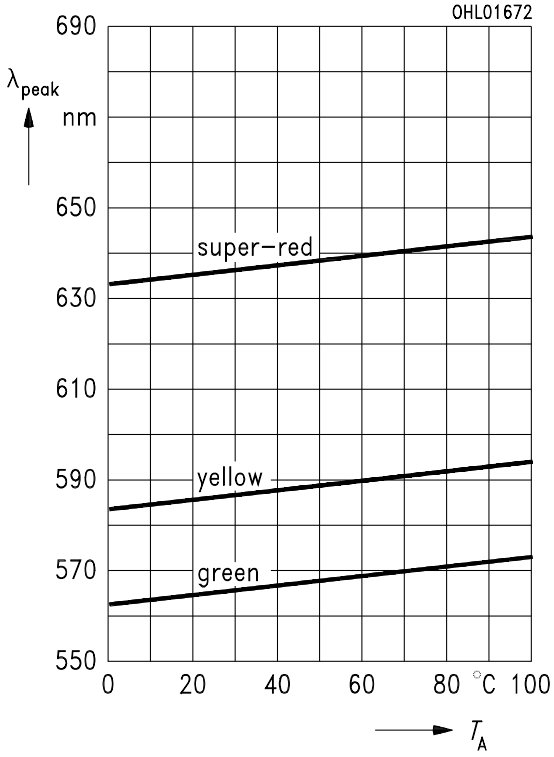
Zulässige Impulsbelastbarkeit $I_F = f(t_P)$
Permissible pulse handling capability
Duty cycle D = parameter, T_A = 25 ℃



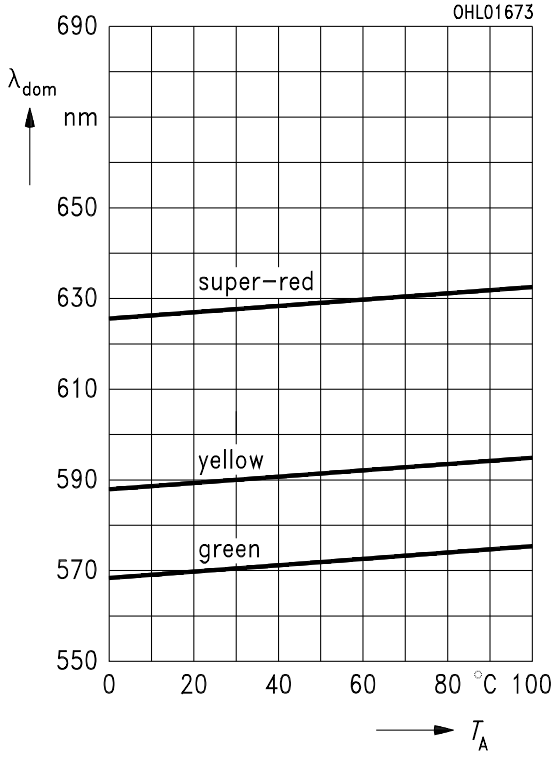
Maximal zulässiger Durchlaßstrom
Max. permissible forward current
$I_F = f(T_A)$



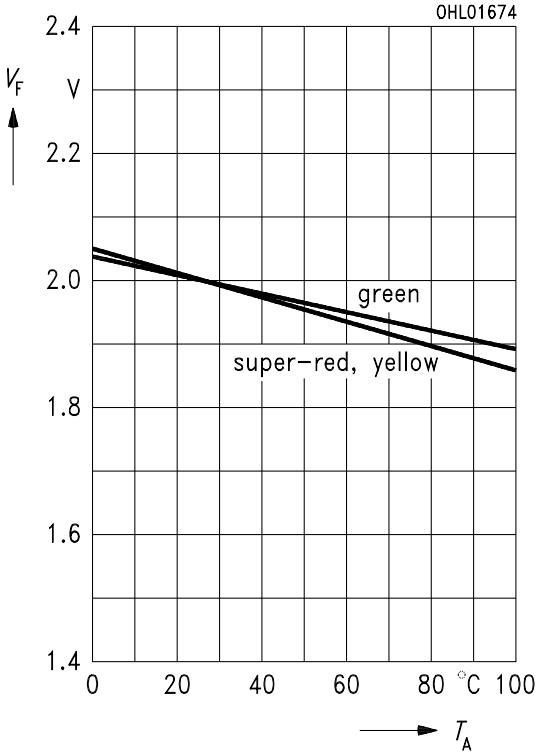
Wellenlänge der Strahlung
Wavelength at peak emission
$\lambda_{peak} = f(T_A)$, I_F = 20 mA



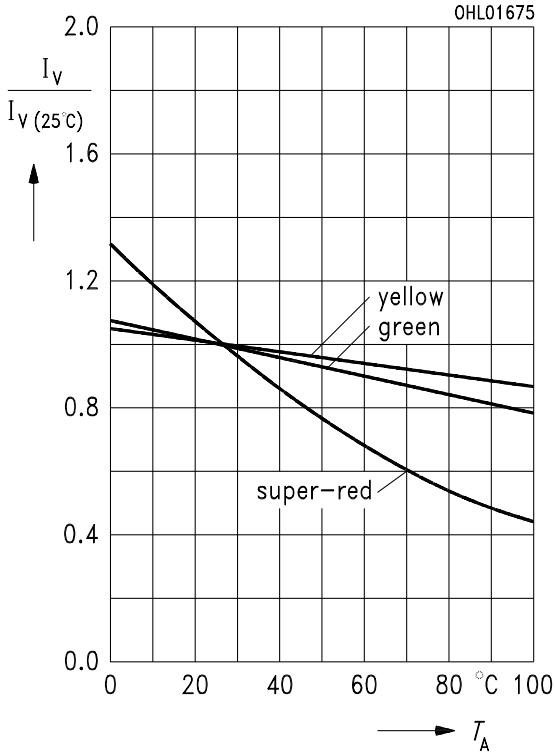
Dominantwellenlänge
Dominant wavelength
$\lambda_{dom} = f(T_A)$, I_F = 20 mA



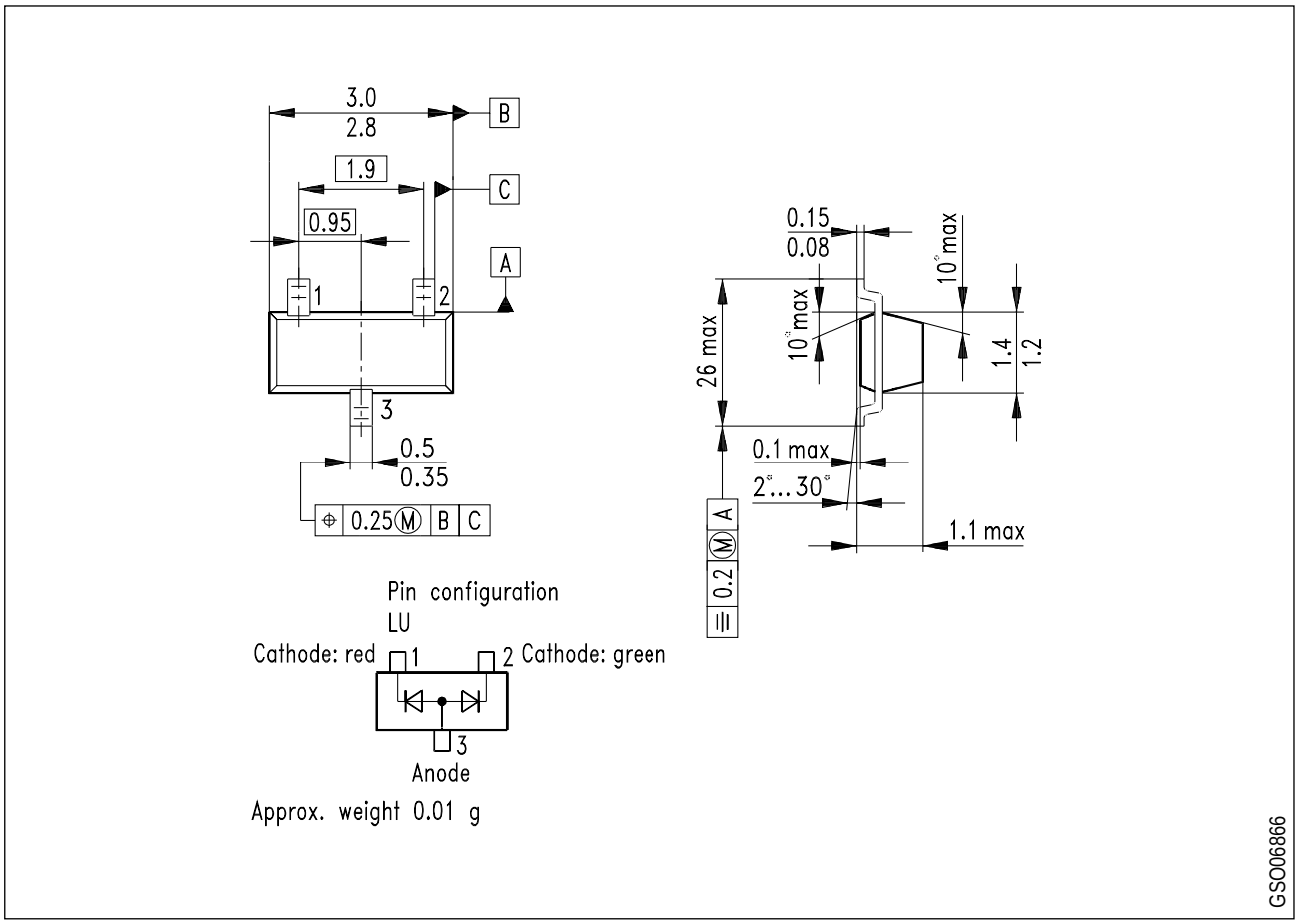
Durchlaßspannung $V_F = f(T_A)$
Forward voltage
I_F = 10 mA



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



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



Anschlußbelegung: (Draufsicht)
Pin configuration: (top view)