

SOT-23 MULTILED®, Diffused

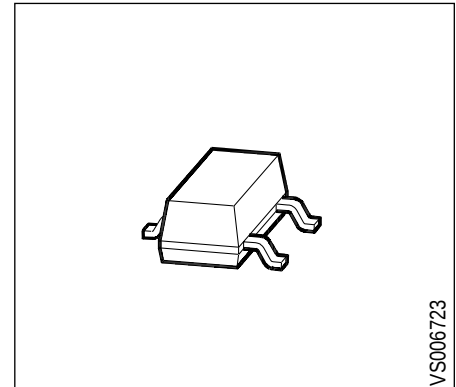
LU S250, LV S260, LW S260

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



VS006723

Type	Emissionsfarbe Color of Emission	Gehäusefarbe Color of Package	Lichtstärke Luminous Intensity $I_F = 10 \text{ mA}$ $I_V \text{ (mcd)}$	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 $I_{V \max} / I_{V \min} \leq 2.0$.
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
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 $t \leq 10 \mu s, D = 0.005$	I_{FM}	0.5	A
Sperrspannung Reverse voltage	V_R	5	V
Verlustleistung Power dissipation $T_A \leq 25^\circ C$	P_{tot}	100	mW
Wärmewiderstand Thermal resistance Sperrschicht / Luft Junction / air ¹⁾	$R_{th JA}$	750	K/W

¹⁾ Auf Platine gelötet: Lötfläche $\geq 16 \text{ cm}^2$.

¹⁾ Soldered on PC board: pad size $\geq 16 \text{ cm}^2$.

Notes

Die angegebenen Grenzdaten gelten für einen Chip.

The stated maximum ratings refer to one chip.

Kennwerte ($T_A = 25\text{ °C}$)

Characteristics

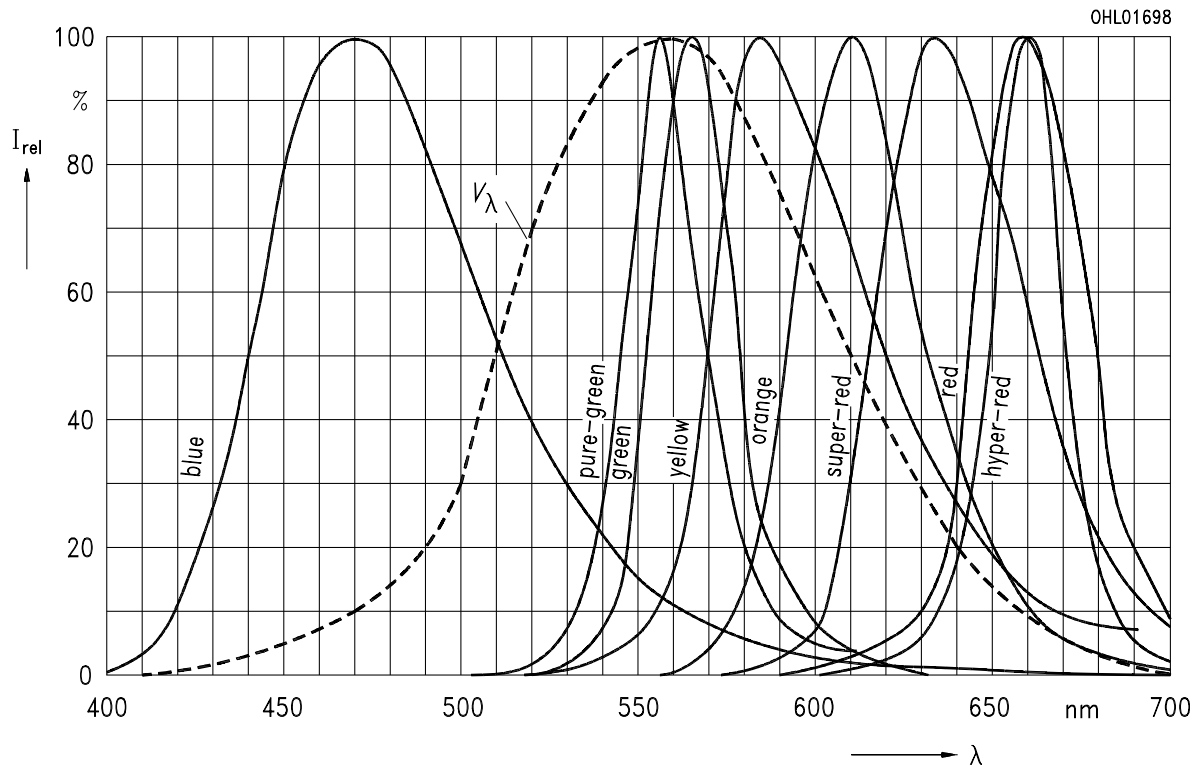
Bezeichnung Parameter	Symbol Symbol	Werte Values		Einheit Unit
		super-red	green	
Wellenlänge des emittierten Lichtes (typ.) Wavelength at peak emission (typ.) $I_F = 20\text{ mA}$	λ_{peak}	635	565	nm
Dominantwellenlänge (typ.) Dominant wavelength (typ.) $I_F = 20\text{ mA}$	λ_{dom}	628	570	nm
Spektrale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

Relative spektrale Emission $I_{\text{rel}} = f(\lambda)$, $T_A = 25^\circ\text{C}$, $I_F = 20\text{ mA}$

Relative spectral emission

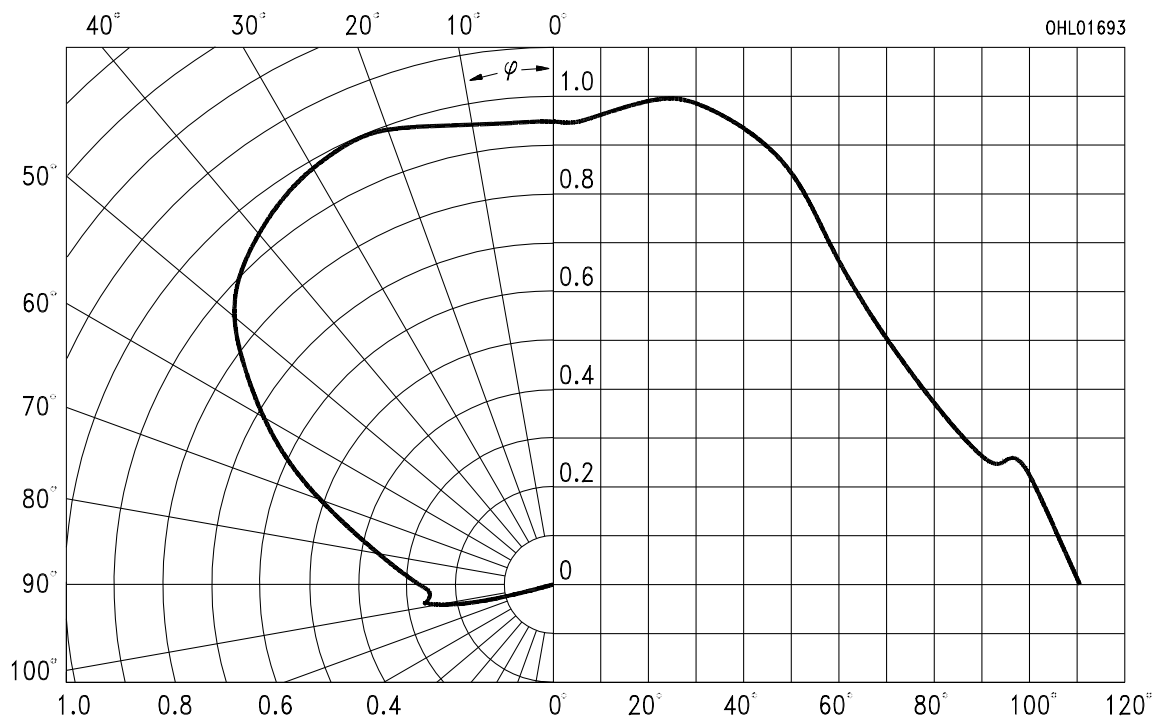
$V(\lambda)$ = spektrale Augenempfindlichkeit

Standard eye response curve



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

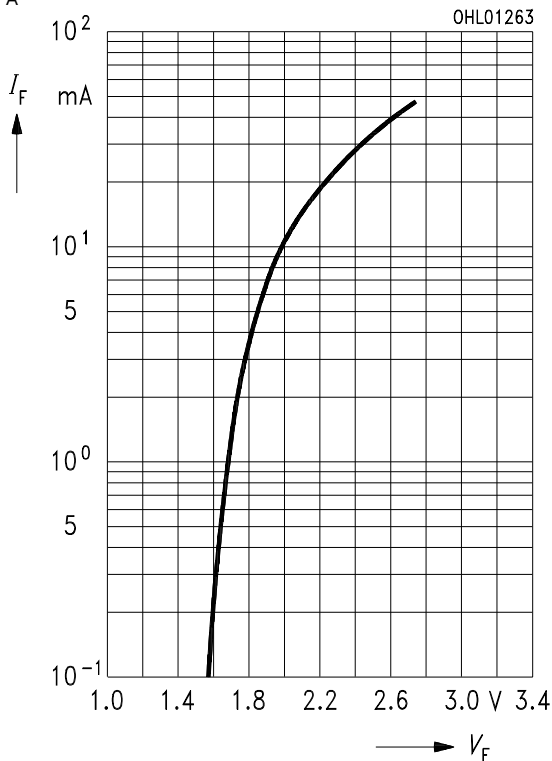
Radiation characteristic



Durchlaßstrom $I_F = f(V_F)$

Forward current

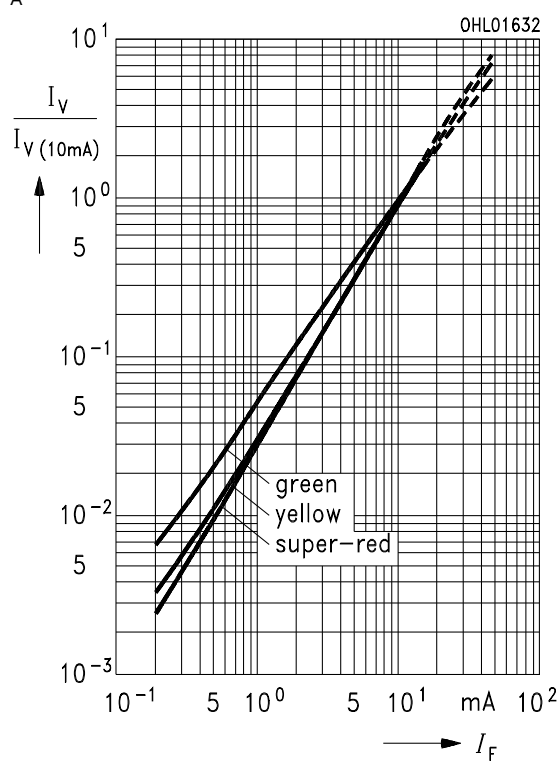
$T_A = 25^\circ\text{C}$



Relative Lichtstärke $I_V/I_{V(10\text{ mA})} = f(I_F)$

Relative luminous intensity

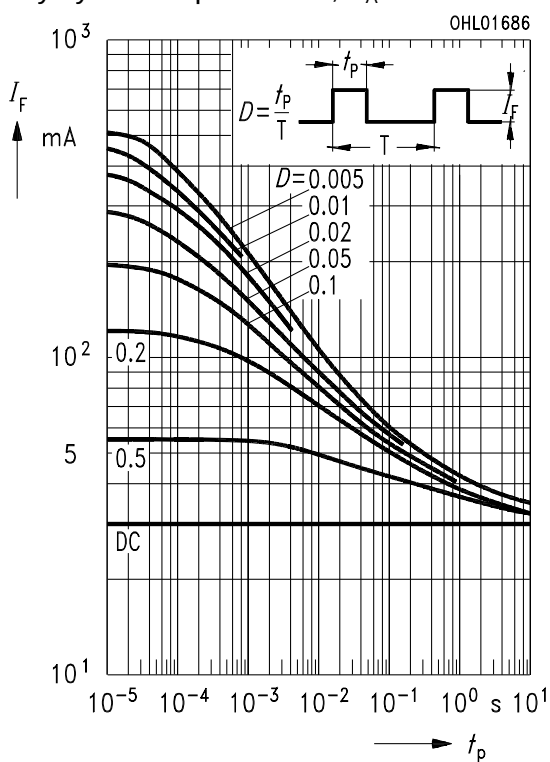
$T_A = 25^\circ\text{C}$



Zulässige Impulsbelastbarkeit $I_F = f(t_p)$

Permissible pulse handling capability

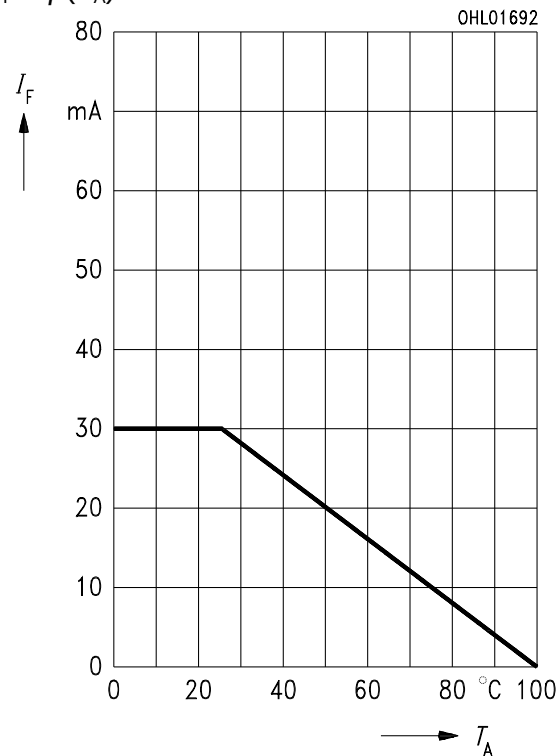
Duty cycle $D = \text{parameter}$, $T_A = 25^\circ\text{C}$



Maximal zulässiger Durchlaßstrom

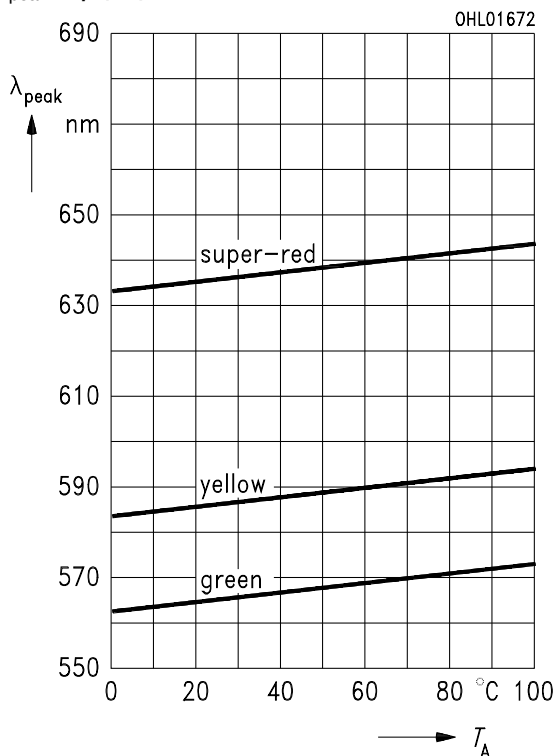
Max. permissible forward current

$I_F = f(T_A)$



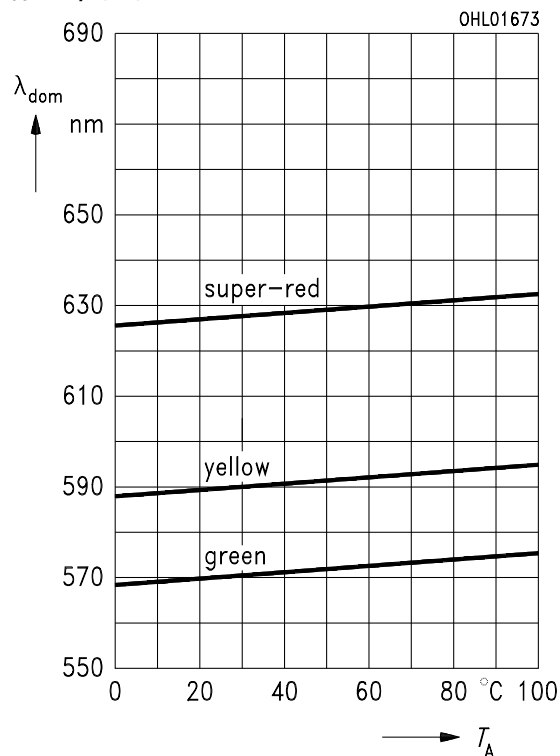
Wellenlänge der Strahlung Wavelength at peak emission

$$\lambda_{\text{peak}} = f(T_A), I_F = 20 \text{ mA}$$



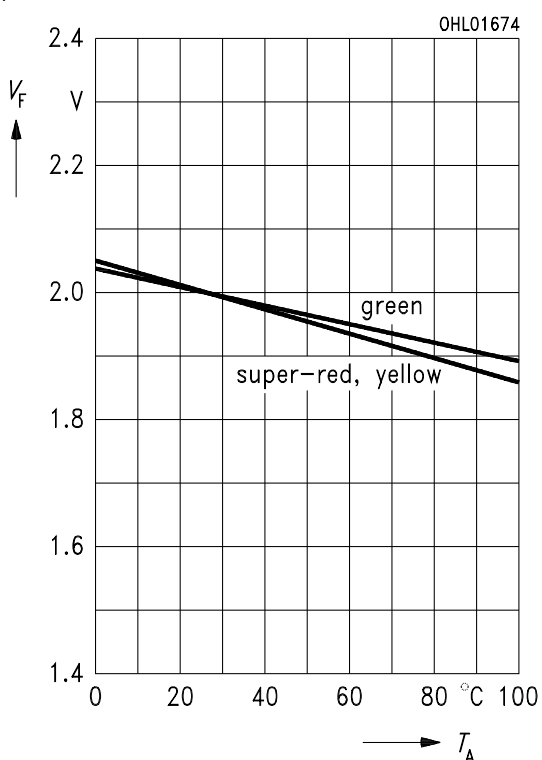
Dominantwellenlänge Dominant wavelength

$$\lambda_{\text{dom}} = f(T_A), I_F = 20 \text{ mA}$$



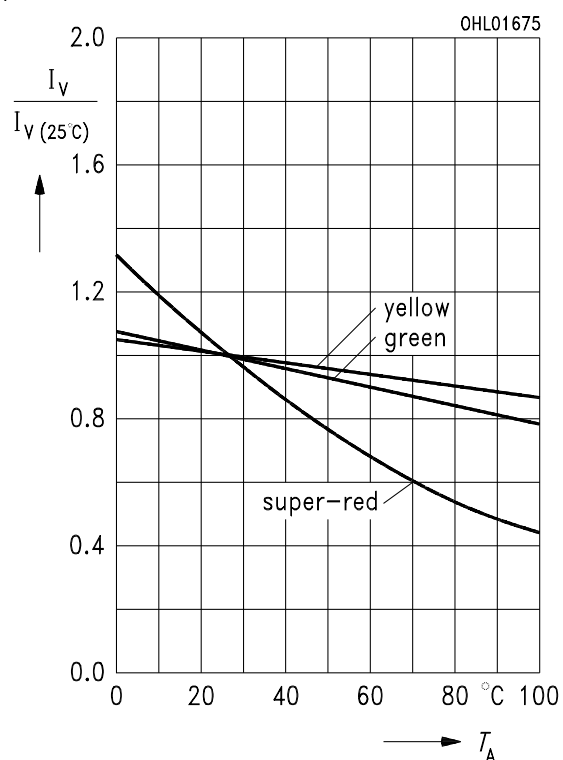
Durchlaßspannung $V_F = f(T_A)$ Forward voltage

$$I_F = 10 \text{ mA}$$

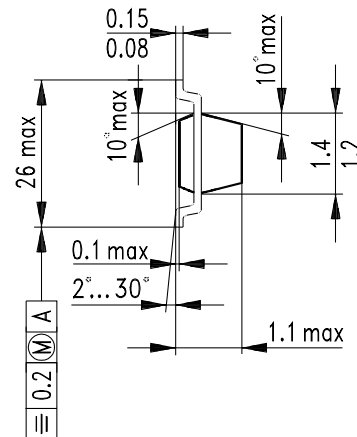
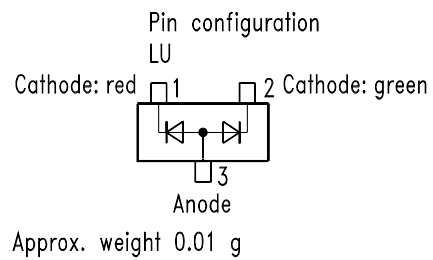
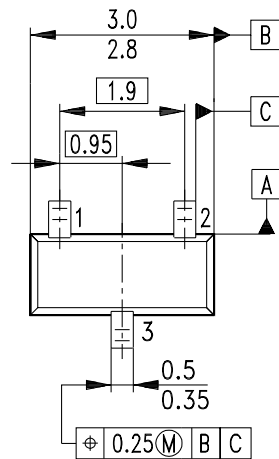


Relative Lichtstärke $I_V/I_{V(25^\circ\text{C})} = f(T_A)$ Relative luminous intensity

$$I_F = 10 \text{ mA}$$



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



GSO06866

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