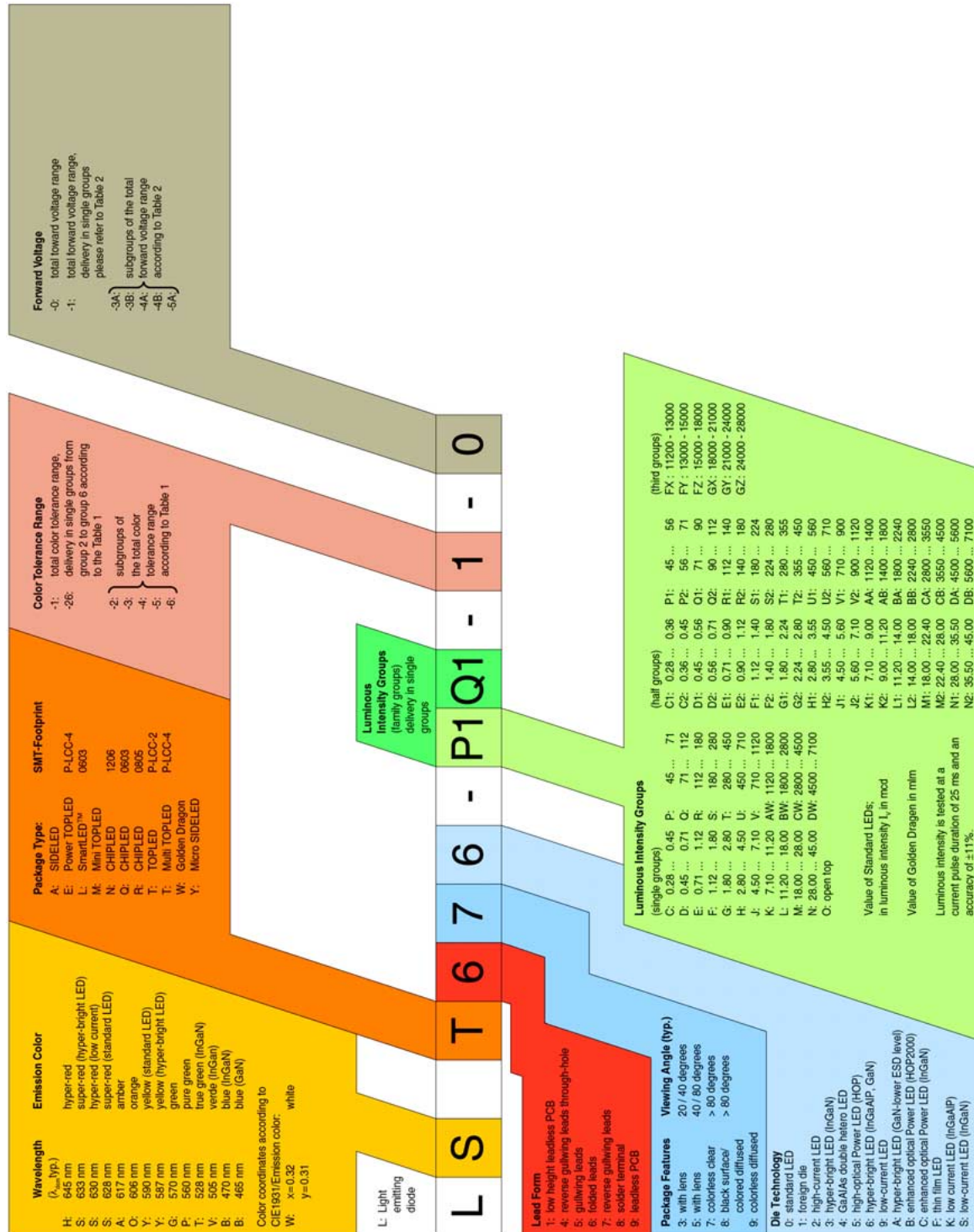

LUMINESZENZDIODEN

LIGHT EMITTING DIODES



SMT-LED-Typenbezeichnungsschema

SMT LED type designation system



Gurtung von Lumineszenzdiolen

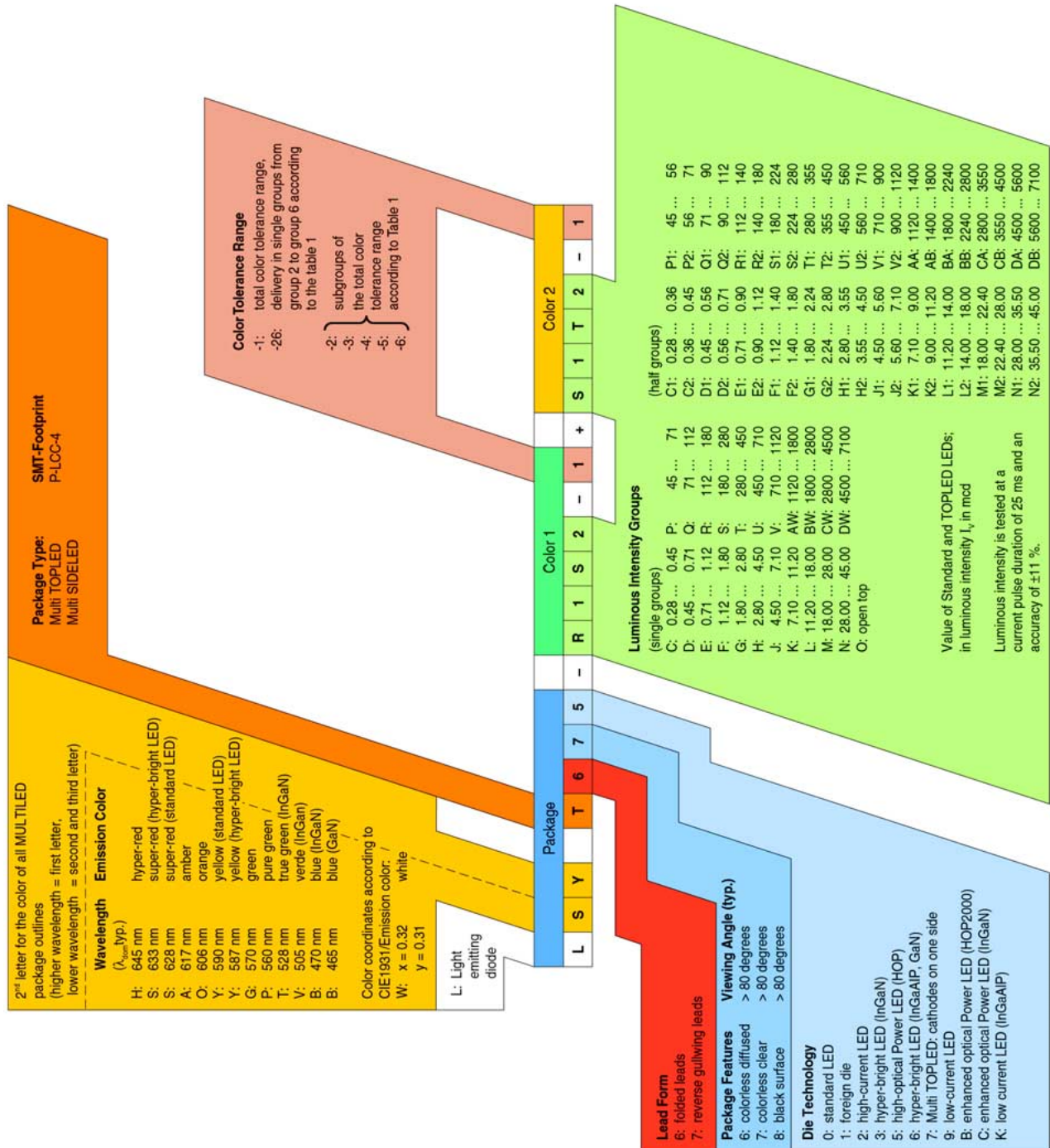
Alle SMT-LED werden im 8- bzw. 12-mm Gurt geliefert.

Taping of LEDs

All SMT LEDs are available in 8 mm resp. 12 mm tapes.

SMT-LED-Typenbezeichnungsschema

SMT LED type designation system



Gurtung von Lumineszenzdiolen

Alle SMT-LED werden im 8- bzw. 12-mm Gurt geliefert.

Taping of LEDs

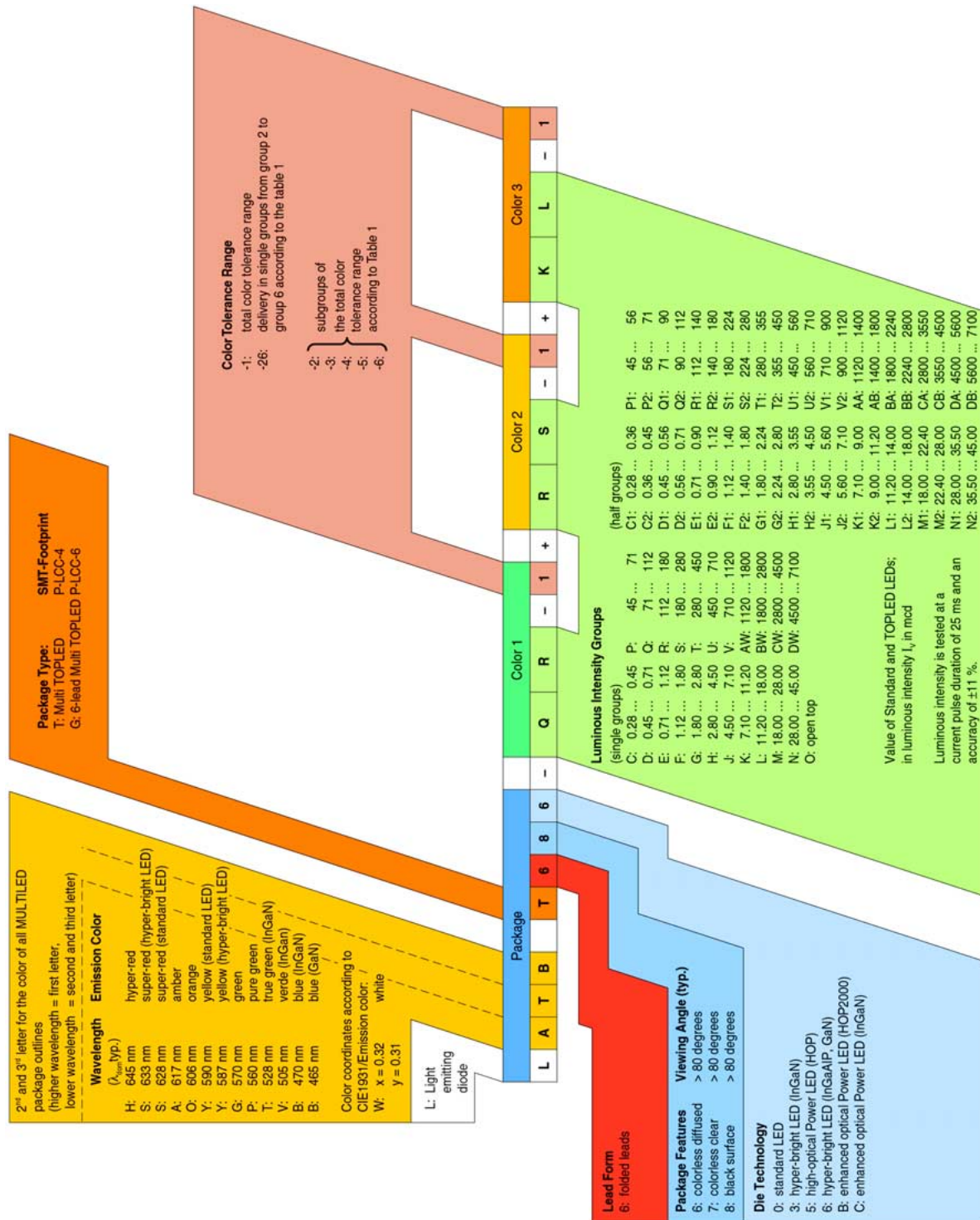
All SMT LEDs are available in 8 mm resp. 12 mm tapes.

SI-FOTODETEKTOREN, OPTISCHE SENSOREN UND IR-LUMINESZENZDIODEN

SMT-LED-Typenbezeichnungsschema

SILICON PHOTODETECTORS, OPTICAL SENSORS AND INFRARED EMITTERS

SMT LED type designation system



Gurtung von Lumineszenzdiolen

Alle SMT-LED werden im 8- bzw. 12-mm Gurt geliefert.

Taping of LEDs

All SMT LEDs are available in 8 mm resp. 12 mm tapes.

GRUPPIERUNGSSCHEMA FÜR SMT LEDs

GROUPING SCHEME FOR SMT LEDs

Wellenlängengruppen für Standard LEDs und InGaP LEDs ¹⁾

Wellenlängengruppen für LY xxx0 und LY xxx6
 Wellenlängengruppen für LO xxx0 und LO xxx6
 Wellenlängengruppen für LA xxx6
 Wellenlängengruppen für LS xxx0 und LS xxx6
 Wellenlängengruppen für LG xxx0 und LG xxx6
 Wellenlängengruppen für LP xxx0 und LP xxx6

Color Tolerance Range Grouping for standard LEDs and InGaP LEDs ¹⁾

Wavelength Grouping for LY xxx0 and LY xxx6
 Wavelength Grouping for LO xxx0 and LO xxx6
 Wavelength Grouping for LA xxx6
 Wavelength Grouping for LS xxx0 and LS xxx6
 Wavelength Grouping for LG xxx0 and LG xxx6
 Wavelength Grouping for LP xxx0 and LP xxx6

Color Color Grouping	Yellow		Orange		Amber		Super red		green		Pure green		Unit
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	
1					612	624	622	634	564	576	556	566	nm
2	580	583	600	603					566	569	554	557	nm
3	583	586	603	606					569	572	557	560	nm
4	586	589	606	609					572	575	560	563	nm
5	589	592	609	612							563	566	nm
6	592	595											nm

Wellenlängen werden mit einer Stromeinprägedauer von 25 ms und einer Genauigkeit von ± 1 nm ermittelt.

Wavelengths are tested at a current pulse duration of 25 ms and an accuracy of ± 1 nm.

Wellenlängengruppen für High Optical Power LEDs

Wellenlängengruppen für LY xxx5 und LY xxxB
 Wellenlängengruppen für LO xxxB
 Wellenlängengruppen für LA xxx5 und LA xxxB
 Wellenlängengruppen für LS xxx5 und LS xxxB

Color Tolerance Range Grouping for High Optical Power LEDs

Wavelength Grouping for LY xxx5 and LY xxxB
 Wavelength Grouping for LO xxxB
 Wavelength Grouping for LA xxx5 and LA xxxB
 Wavelength Grouping for LS xxx5 and LS xxxB

Color Color Grouping	Yellow (HOP / HOP 2000)		Orange (HOP 2000)		Amber (HOP / HOP 2000)		Super red (HOP / HOP 2000)		Unit
	min.	max.	min.	max.	min.	max.	min.	max.	
1							622	634	nm
2	580	583	600	603	612	616			nm
3	583	586	603	606	616	620			nm
4	586	589	606	609	620	624			nm
5	589	592	609	612					nm
6	592	595							nm

Wellenlängen werden mit einer Stromeinprägedauer von 25 ms und einer Genauigkeit von ± 1 nm ermittelt.

Wavelengths are tested at a current pulse duration of 25 ms and an accuracy of ± 1 nm.

¹⁾ Gilt nicht für CHIPLED.

¹⁾ Except CHIPLED.

GRUPPIERUNGSSCHEMA FÜR SMT LEDs

GROUPING SCHEME FOR SMT LEDs

Tabelle 2: Durchlassspannungsgruppen für High Optical Power LEDs

Durchlassspannungsgruppen für LY xxx5 und LY xxxB
Durchlassspannungsgruppen für LS xxx5 und LS xxxB

Table 2: Forward Voltage Grouping for High Optical Power LEDs

Forward Voltage Grouping for LY xxx5 and LY xxxB
Forward Voltage Grouping for LS xxx5 and LS xxxB

Color V_F Grouping	Power TOPLED Yellow at 50 mA (HOP / HOP 2000)		Unit
	min.	max.	
3	1.9	2.2	V
4	2.2	2.5	V

Spannungswerte werden mit einer Stromeinprägедauer von 1 ms und einer Genauigkeit von $\pm 0,05$ V ermittelt.

Voltages are tested at a current pulse duration of 1 ms and an accuracy of ± 0.05 V.

Durchlassspannungsgruppen für LA xxx5, LA xxxB und LA xxxF

Forward Voltage Grouping for LA xxx5, LA xxxB and LA xxxF

Color V_F Grouping	Amber		Unit
	min.	max.	
3A	1.90	2.05	V
3B	2.05	2.20	V
4A	2.20	2.35	V
4B	2.35	2.50	V
5A	2.50	5.65	V

Spannungswerte werden mit einer Stromeinprägедauer von 1 ms und einer Genauigkeit von $\pm 0,05$ V ermittelt.

Voltages are tested at a current pulse duration of 1 ms and an accuracy of ± 0.05 V.

GRUPPIERUNGSSCHEMA FÜR SMT LEDs

GROUPING SCHEME FOR SMT LEDs

Tabelle 1: Wellenlängengruppen für InGaN LEDs ¹⁾

Wellenlängengruppen für LB xxx3 und LB xxxC
(ohne Power TOPLED)
Wellenlängengruppen für LV xxx3 und LV xxxC
(ohne Power TOPLED)
Wellenlängengruppen für LT xxx3 und LT xxxC
(ohne Power TOPLED)

Table 1: Color Tolerance Range Grouping for InGaN LEDs ¹⁾

Wavelength Grouping for LB xxx3 and LB xxxC
(Power TOPLED not included)
Wavelength Grouping for LV xxx3 and LV xxxC
(Power TOPLED not included)
Wavelength Grouping for LT xxx3 and LT xxxC
(Power TOPLED not included)

Color Color Grouping	Blue at 20 mA		Verde green at 20 mA		True green at 20 mA		Unit
	min.	max.	min.	max.	min.	max.	
2							nm
3	464	468	499	503	519	525	nm
4	468	472	503	507	525	531	nm
5	472	476	507	511	531	537	nm
6							nm

Wellenlängen werden mit einer Stromeinprägungsdauer von 25 ms und einer Genauigkeit von ± 1 nm ermittelt.

Wavelengths are tested at a current pulse duration of 25 ms and an accuracy of ± 1 nm.

Wellenlängengruppen für LB Exx3 und LB ExxC (Power TOPLED)
Wellenlängengruppen für LV Exx3 und LV ExxC (Power TOPLED)
Wellenlängengruppen für LT Exx3 und LT ExxC (Power TOPLED)

Wavelength Grouping for LB Exx3 and LB ExxC (Power TOPLED)
Wavelength Grouping for LV Exx3 and LV ExxC (Power TOPLED)
Wavelength Grouping for LT Exx3 and LT ExxC (Power TOPLED)

Color Color Grouping	Blue at 30 mA (Power TOPLED)		Verde green at 30 mA (Power TOPLED)		True green at 30 mA (Power TOPLED)		Unit
	min.	max.	min.	max.	min.	max.	
2							nm
3	463	467	497	501	516	522	nm
4	467	471	501	505	522	528	nm
5	471	475	505	509	528	534	nm
6							nm

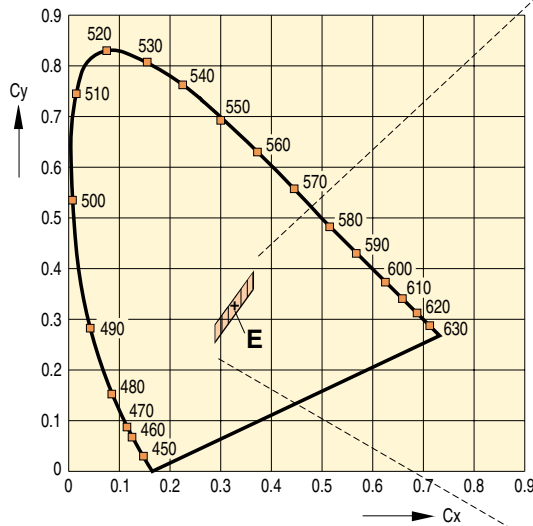
Wellenlängen werden mit einer Stromeinprägungsdauer von 25 ms und einer Genauigkeit von ± 1 nm ermittelt.

Wavelengths are tested at a current pulse duration of 25 ms and an accuracy of ± 1 nm.

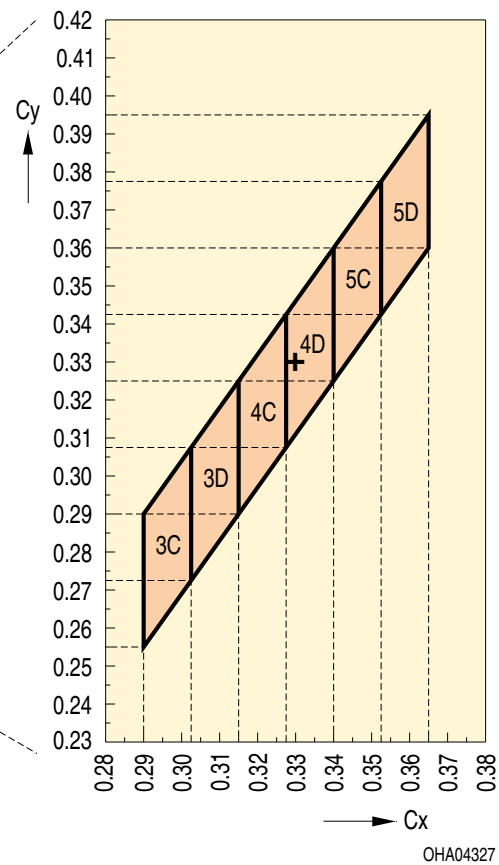
¹⁾ Gilt nicht für CHIPLED.

¹⁾ Except CHIPLED.

Farbortgruppe ¹⁾



Chromaticity coordinate groups ¹⁾



Farbortgruppen werden mit einer Stromeinprägedauer von 25 ms und einer Genauigkeit von $\pm 0,01$ ermittelt.

Chromaticity coordinate groups are tested at a current pulse duration of 25 ms and an accuracy of ± 0.01 .

¹⁾ gilt nicht für CHIPLED

¹⁾ except CHIPLED

Feingruppierung für weiße LED's

	C_x	C_y		C_x	C_y
3C	0,290	0,290	3D	0,302	0,307
	0,302	0,307		0,315	0,325
	0,302	0,271		0,315	0,290
	0,290	0,255		0,302	0,271
4C	0,315	0,325	4D	0,327	0,342
	0,327	0,342		0,340	0,360
	0,327	0,306		0,340	0,325
	0,315	0,290		0,327	0,306
5C	0,340	0,360	5D	0,352	0,377
	0,352	0,377		0,365	0,395
	0,352	0,341		0,365	0,360
	0,340	0,325		0,352	0,341

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

HINWEISE

Gurtung

Golden Dragon	24 mm Gurt, gegurtet auf 18 cm Spule, 800 Stück/Spule
TOPLED, Multi TOPLED:	8 mm Gurt, gegurtet auf 18 cm Spule, 2000 Stück/Spule, auf 33 cm Spule 8000 Stück/Spule ¹⁾
Power TOPLED:	8 mm Gurt, gegurtet auf 18 cm Spule, 2000 Stück/Spule, auf 33 cm Spule 8000 Stück/Spule ¹⁾
Power TOPLED mit Linse:	12 mm Gurt, gegurtet auf 33 cm Spule, 2000 Stück/Spule.
TOPLED RG:	12 mm Gurt, gegurtet auf 18 cm Spule, 2000 Stück/Spule, auf 33 cm Spule, 8000 Stück/Spule ¹⁾
6-lead TOPLED:	12 mm Gurt, gegurtet auf 18 cm Spule, 1000 Stück/Spule
SIDELED, Multi SIDELED:	12 mm Gurt, gegurtet auf 33 cm Spule, 2000 Stück/Spule.
Mini TOPLED:	8 mm Gurt, gegurtet auf 18 cm Spule, 3000 Stück /Spule, auf 33 cm Spule, 12000 Stück/Spule ¹⁾
Mini TOPLED RG through-hole:	12 mm Gurt, gegurtet auf 18 cm Spule, 3000 Stück/Spule, auf 33 cm Spule, 11 800 Stück/Spule ¹⁾
Mini TOPLED RG:	12 mm Gurt, gegurtet auf 18 cm Spule, 3000 Stück/Spule, auf 33 cm Spule, 11 800 Stück/Spule ¹⁾
Micro SIDELED:	12 mm Gurt, gegurtet auf 18 cm Spule, 3000 Stück/Spule auf 33 cm Spule, 10000 Stück/Spule ¹⁾
CHIPLED 1206:	8 mm Gurt, gegurtet auf 18 cm Spule, 3000 Stück/Spule
CHIPLED 0805:	8 mm Gurt, gegurtet auf 18 cm Spule, 4000 Stück/Spule
CHIPLED 0603:	8 mm Gurt, gegurtet auf 18 cm Spule, 4000 Stück/Spule
SmartLED™:	8 mm Gurt, gegurtet auf 18 cm Spule, 10 000 Stück/Spule, auf 33 cm Spule, 40000 Stück/Spule ¹⁾

¹⁾ Für die 33 cm Spule erhalten Sie die Bestellnummer Anfrage.

NOTES

Tape and Reel

Golden Dragon	24 mm tape, taped on 18 cm reel, 800 pieces/reel
TOPLED, Multi TOPLED:	8-mm tape, taped on 18-cm reel, 2000 pieces/reel, on 33-cm reel, 8000 pieces/reel ¹⁾
Power TOPLED:	8-mm tape, taped on 18-cm reel, 2000 pieces/reel, on 33-cm reel, 8000 pieces/reel ¹⁾
Power TOPLED with Lens:	12-mm tape, taped on 33-cm reel, 2000 pieces/reel.
TOPLED RG:	12-mm tape, taped on 18-cm reel, 2000 pieces/reel, on 33-cm reel, 8000 pieces/reel ¹⁾
6-lead TOPLED:	12-mm tape, taped on 18-cm reel, 1000 pieces/reel
SIDELED, Multi SIDELED:	12-mm tape, taped on 33 cm reel, 2000 pieces/reel.
Mini TOPLED:	8-mm tape, taped on 18-cm reel, 3000 pieces/reel, on 33-cm reel, 12000 pieces/reel ¹⁾
Mini TOPLED RG through-hole:	12-mm tape, taped on 18-cm reel, 3000 pieces/reel, on 33-cm reel, 11 800 pieces/reel ¹⁾
Mini TOPLED RG:	12-mm tape, taped on 18-cm reel, 3000 pieces/reel, on 33-cm reel, 11 800 pieces/reel ¹⁾
Micro SIDELED:	12 mm tape, taped on 18-cm reel, 3000 pieces/reel, on 33-cm reel, 10000 pieces/reel ¹⁾
CHIPLED 1206:	8 mm tape, taped on 18-cm reel, 3000 pieces/reel
CHIPLED 0805:	8 mm tape, taped on 18-cm reel, 4000 pieces/reel
CHIPLED 0603:	8 mm tape, taped on 18-cm reel, 4000 pieces/reel
SmartLED™:	8 mm tape, taped on 18-cm reel, 10 000 pieces/reel, on 33-cm reel, 40000 pieces/reel ¹⁾

¹⁾ For 33 cm reel you will receive the ordering code on request.

Parameter des OSRAM LED Helligkeitsgruppen System für SMT LEDs

SMT LEDs werden in der Regel in Helligkeitshalbgruppen gemessen (Ausnahme sind Multi LEDs, Chipled und Golden Dragon). Die Streuung der Helligkeit in einer Halbgruppe beträgt $\pm 12\%$. Da die Helligkeit mit einer Toleranz von $\pm 11\%$ gemessen wird, beträgt die max. Schwankungsbreite in einer Verpackungseinheit $\pm 23\%$.

Helligkeitsgruppen und Werte siehe Seite 58 Typenbezeichnungsschema.

1. In einer Verpackungseinheit / Gurt ist immer nur eine Halbgruppe!
2. Die Standardlieferform von Serientypen beinhaltet eine untere bzw. eine obere Familiengruppe, die aus nur 3 bzw. 4 Halbgruppen besteht. Einzelgruppen sind nicht erhältlich.

Beispiel für Gruppierungsschema:

LY T676-Q1R1-26: untere Familiengruppe
LY T676-R1S2-26: obere Familiengruppe

Untere Familiengruppe: Der mögliche Lieferumfang beinhaltet die Helligkeitsgruppen Q1, Q2, R1

Obere Familiengruppe: Der mögliche Lieferumfang beinhaltet die Helligkeitsgruppen R1, R2, S1, S2

Lambda Code "-1" ist die Farbtoleranz (Dominante Wellenlänge). Auf Anfrage sind bei einigen Typen mit Aufpreis Farbselektionen (Wellenlängengruppen) möglich.

1. In jeder Verpackungseinheit ist nur eine Wellenlängengruppe/Farbtorgruppe enthalten.
2. Die Standardlieferung beinhaltet die Wellenlängengruppen/Farbtorgruppen 2, 3, 4, 5, 6.
3. Auf Anfrage sind bei einigen Typen einzelne Wellenlängengruppen erhältlich.
4. Typen, die mit -1 bezeichnet sind, z. B. LS T676-P1Q1-1, sind nicht in Wellenlängengruppen/Farbtorgruppen erhältlich. Ein Toleranzbereich wird abgesichert.

Helligkeitsgruppierung bei SMT MULTILED

Beide (oder mehrere) Farben werden nach dem Helligkeitsgruppierungsschema (siehe Typenbezeichnungsschema) in Lichtstärke (mcd) gruppiert.

Beispiel: LSY T676 - P + Q
Superrot (S) Gruppe P = 45 ... 71 mcd
Gelb (Y) Gruppe Q = 71 ... 112 mcd

Helligkeitsgruppen

Durch die Helligkeitsverteilung von den Einzelfarben ergeben sich 4 bis 6 Einzelgruppen bei Multi TOPLED / Multi SIDELED:

Beispiel: LSY T676 Bestellgruppe
- P + P
- P + Q mögliche
- P + R Liefergruppen
- Q + Q
- Q + R

In einer Verpackungseinheit ist immer nur eine Kombination enthalten.

Parameters for OSRAM LED Luminous Intensity Group System for SMT LEDs

SMT LEDs are normally measured in luminous intensity half groups (except for Multi LEDs, Chipled and Golden Dragon). The luminosity variation in one half group is $\pm 12\%$. As luminous intensity is tested at a tolerance of $\pm 11\%$, the variation range in one packing unit amounts to $\pm 23\%$.

For luminous intensity groups and values see page 58 Type designation system.

1. No packing unit/tape ever contains more than one luminous intensity group!
2. The standard shipping format for serial types includes a lower or upper family group which contains of 3 or 4 groups. Individual groups are not available.

Example of grouping scheme:

LY T676-Q1R1-26: lower family group
LY T676-R1S2-26: upper family group

Lower family group: Scope of delivery includes luminous intensity groups Q1, Q2, R1

Upper family group: Scope of delivery includes luminous intensity groups R1, R2, S1, S2

The color tolerance (dominant wavelength) is the lambda code "-1". On surcharge wavelength selections are available for most types.

1. No packing unit/tape ever contains more than one wavelength group/chromaticity coordinate group.
2. The standard shipping format contains the wavelength groups/chromaticity coordinate groups 2, 3, 4, 5, 6.
3. On request individual wavelength selections are available for some types.
4. Types which are labelled with -1, e. g. LS T676-P1Q1-1, are not available in wavelength/chromaticity coordinate selections. A tolerance range is ensured.

Luminous Intensity Groups for SMT MULTILED

Two (or more) colors will be grouped according to luminous intensity (mcd) in line with the luminous intensity group system (see Type designation system).

Example: LSY T676 - P + Q
super-red (S) Group P = 45 ... 71 mcd
yellow (Y) Group Q = 71 ... 112 mcd

Luminous Intensity Groups

The luminosity distribution of the individual colors results in the following 4 to 6 individual groups for Multi TOPLED / Multi SIDELED:

Example: LSY T676 Order group
- P + P
- P + Q possible
- P + R shipment
- Q + Q groups
- Q + R

Only one combination is included in any packing unit.

Sicherheitshinweise

Osram LEDs erreichen aufgrund von neuen Chip-Technologien immer höhere optische Leistungen.

Wir empfehlen daher, schon bei der Entwicklung von Geräten, die zu diesem Zeitpunkt gültigen Normen IEC 825-1 bzw. EN 60825-1 zu beachten und insbesondere auf den Gebrauch von entsprechenden Schutzvorrichtungen in Ihren Labors hinzuweisen.

Informationen zur Augensicherheit

Die Erfordernis, eine Anmerkung zur Augensicherheit auf LED-Produkte zu drucken, hängt vom Produktdesign und der Anwendung ab. Die Lichtabstrahlung von LEDs ist stark genug, um menschliche Augen zu verletzen. Blicken Sie deshalb zum Augenschutz nie aus kurzer Entfernung in den Lichtstrahl einer LED. Unter allen vernünftigerweise vorhersehbaren Bedingungen, bei Einhaltung der „maximum ratings“ nach Datenblatt, werden die Grenzwerte der Klasse 1 nach IEC 60825-1 nicht überschritten. Die LED fällt damit aus dem „scope“ der Laserschutznorm. Die konkrete Schutzklassenzuweisung richtet sich nach den Betriebsbedingungen.

Anmerkungen:

Der Anwender darf keinen Ausbau oder Analyse der LEDs vornehmen, ohne die vorherige schriftliche Zustimmung von Osram OS zu haben. Wenn defekte LEDs gefunden werden, soll der Anwender baldmöglichst Osram OS informieren, bevor er einen Ausbau oder eine Analyse vornimmt. Erscheinungsform und technische Daten des Produktes können zwecks Verbesserung ohne Benachrichtigung geändert werden.

Safety Instructions

The use of new chip technologies means that Osram LEDs are delivering higher and higher levels of optical performance.

We therefore recommend that the current versions of the IEC 825-1 and EN 60825-1 standards are taken into account right from the outset, i.e. at the equipment development stage, and that suitable protection facilities are provided in your laboratories.

Eye Safety Information

The need to place eye safety labelling on LED products is dependent upon the product design and the application. The LEDs light output is strong enough to injure human eyes. Therefore, for eye safety, do not stare into the light beam of any LED at close range. On condition that the LED is used sensibly (compliance with maximum ratings acc. to the datasheet), the limits of class 1 acc. to IEC 60825-1 won't be exceeded. Therefore the LED is not within the scope of the laser protection regulation. The concrete assignment to a protection class depends on the operating conditions.

Remarks:

User shall not reverse engineer by disassembling or analysis of the LEDs without having the prior written consent of Osram OS. When defective LEDs are found, user shall inform to Osram OS directly before disassembling or analysis. The appearance and specifications of the product may be modified for improvement without notice.

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I _V) [deg.]	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ _V [mlm]	at I _F [mA]			

TOPLED

TOPLED

	LH T674-L2M2-1 LH T674-M2P1-1	hyper-red	645	colorless clear	14.00 ... 28.00 22.40 ... 56.00	62.0 (typ.) 110.0 (typ.)	10	120	Q62703-Q5024 Q62703-Q5025	1
	LS T670-H2J2-1 LS T670-J2L1-1	super-red	628	colorless clear	3.55 ... 7.10 5.60 ... 14.00	15.0 (typ.) 28.0 (typ.)	10	120	Q62703-Q5094 Q62703-Q5095	
	LO T670-J1K1-24 LO T670-K1L2-24	orange	606	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5046 Q62703-Q5047	
	LY T670-J1K1-26 LY T670-K1L2-26	yellow	587	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5132 Q62703-Q5133	
	LG T670-K1L1-1 LG T670-L1M2-1	green	570	colorless clear	7.10 ... 14.00 11.20 ... 28.00	31.0 (typ.) 56.0 (typ.)	10	120	Q62703-Q5010 Q62703-Q5011	
	LP T670-G1H1-1 LP T670-H1J2-1	pure green	560	colorless clear	1.80 ... 3.55 2.80 ... 7.10	7.1 (typ.) 14.0 (typ.)	10	120	Q65110-A0323 Q65110-A0324	
	LG T671-K2L2-1 LG T671-L2N1-1	green	570	colorless clear	9.00 ... 18.00 14.00 ... 35.50	40.0 (typ.) 70.0 (typ.)	10	120	Q65110-A0342 Q65110-A0343	
	LS T67K-H1J1-1 LS T67K-J1K2-1	super-red	630	colorless clear	2.80 ... 5.60 4.50 ... 11.20	13 (typ.) 25 (typ.)	10	120	Q62703-Q6434 Q62703-Q6435	
	LO T67K-J2K2-24 LO T67K-K2M1-24	orange	606	colorless clear	5.60 ... 11.20 9.00 ... 22.40	25 (typ.) 45 (typ.)	10	120	Q62703-Q6430 Q62703-Q6431	
	LY T67K-H2J2-26 LY T67K-J2L1-26	yellow	587	colorless clear	3.55 ... 7.10 5.60 ... 14.00	15 (typ.) 30 (typ.)	10	120	Q62703-Q6438 Q62703-Q6439	

Super TOPLED

Super TOPLED

	LG T672-P1Q1-1 LG T672-Q1R2-1	green	570	colorless clear	45.0 ... 90.0 71.0 ... 180.0	190 (typ.) 350 (typ.)	50	120	Q62703-Q5014 Q62703-Q5015	1
	LP T672-L2M2-1 LP T672-M2P1-1	pure green	560	colorless clear	14.0 ... 28.0 22.4 ... 56.0	62 (typ.) 110 (typ.)	50	120	Q65110-A0325 Q65110-A0326	

 Nicht für Neuentwicklungen / Not for new design

TOPLED RG (Reverse Gullwing)

TOPLED RG (Reverse Gullwing)

	LH T774-L2M2-1 LH T774-M2P1-1	hyper-red	645	colorless clear	14.00 ... 28.00 22.40 ... 56.00	62.0 (typ.) 110.0 (typ.)	10	120	Q62703-Q5028 Q62703-Q5029	2
	LS T770-H2J2-1 LS T770-J2L1-1	super-red	628	colorless clear	3.55 ... 7.10 5.60 ... 14.00	15.0 (typ.) 28.0 (typ.)	10	120	Q62703-Q5101 Q62703-Q5102	
	LO T770-J1K1-24 LO T770-K1L2-24	orange	606	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q65110-A0320 Q65110-A0321	
	LY T770-J1K1-26 LY T770-K1L2-26	yellow	587	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5139 Q62703-Q5140	
	LG T770-K1L1-1 LG T770-L1M2-1	green	570	colorless clear	7.10 ... 14.00 11.20 ... 28.00	31.0 (typ.) 56.0 (typ.)	10	120	Q62703-Q5018 Q62703-Q5019	
	LP T770-G1H1-1 LP T770-H1J2-1	pure green	560	colorless clear	1.80 ... 3.55 2.80 ... 7.10	7.7 (typ.) 14.0 (typ.)	10	120	Q65110-A0328 Q65110-A0329	
	LO T77K-J2K2-24 LO T77K-K2M1-24	orange	606	colorless clear	5.60 ... 11.20 9.00 ... 22.40	25 (typ.) 45 (typ.)	2	120	Q65110-A0310 Q65110-A0311	

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg.].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			
Hyper TOPLED										
	LH T676-P1Q1-1 LH T676-Q1R2-1	hyper-red	645	colorless clear	45.0 ... 90.0 71.0 ... 180.0	190 (typ.) 350 (typ.)	20	120	Q62703-Q5026 Q62703-Q5027	1
	LS T676-P1Q1-1 LS T676-Q1R2-1	super-red	633	colorless clear	45.0 ... 90.0 71.0 ... 180.0	190 (typ.) 350 (typ.)	20	120	Q62703-Q5096 Q62703-Q5097	
	LA T676-Q1R1-1 LA T676-R1S2-1	amber	617	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4982 Q62703-Q4983	
	LO T676-Q2R2-24 LO T676-R2S2-24	orange	606	colorless clear	90.0 ... 180.0 140.0 ... 280.0	390 (typ.) 610 (typ.)	20	120	Q62703-Q4405 Q62703-Q5049	
	LY T676-Q1R1-26 LY T676-R1S2-26	yellow	587	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q5134 Q62703-Q5135	
	LG T676-N2Q1-1	green	570	colorless clear	35 ... 90	180 (typ.)	30	120	Q62703-Q6411	
	LP T676-L1M2-25	pure green	560	colorless clear	11.2 ... 28	60 (typ.)	20	120	Q62703-Q6410	
	LB T676-J2K2-1 LB T676-K2M1-1	blue	465	colorless clear	5.6 ... 11.2 9.0 ... 22.4	25 (typ.) 45 (typ.)	10	120	Q62703-Q4994 Q65110-A0221	
	LS T675-R2T1-1	super-red	633	colorless clear	140.0 ... 355.0	740 (typ.)	30	120	Q62703-Q6349	1
	LP T675-N1P2-25	pure green	560	colorless clear	28 ... 71	150 (typ.)	30	120	Q62703-Q6409	
	LS T67B-S2U1-1	super-red	633	colorless clear	224 ... 560	1200 (typ.)	30	120	on request	
	LB T673-M2N2-35 LB T673-N2Q1-35	blue	470	colorless clear	22.4 ... 45.0 35.5 ... 90.0	100 (typ.) 180 (typ.)	20	120	Q62703-Q4838 Q62703-Q4887	1
	LV T673-Q1R1-35 LV T673-R1S2-35	verde	505	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4845 Q62703-Q4891	
	LT T673-Q2R2-35 LT T673-R2T1-35	true green	528	colorless clear	90.0 ... 180.0 140.0 ... 355.0	390 (typ.) 700 (typ.)	20	120	Q62703-Q4851 Q62703-Q4895	
	LB T67C-N2P2-35 LB T67C-P2R1-35	blue	470	colorless clear	35.5 ... 71.0 56.0 ... 140.0	160 (typ.) 290 (typ.)	20	120	Q62703-Q6223 Q62706-Q6224	1
	LV T67C-R2S2-35 LV T67C-S2U1-35	verde	505	colorless clear	140.0 ... 280.0 224.0 ... 560.0	630 (typ.) 1100 (typ.)	20	120	Q62703-Q6288 Q65110-A0186	
	LT T67C-R2S2-35 LT T67C-S2U1-35	true green	528	colorless clear	140.0 ... 280.0 224.0 ... 560.0	630 (typ.) 1100 (typ.)	20	120	Q62703-Q6292 Q62703-Q6301	
	LW T676-M1N1-25 LW T676-N1P2-25	white	x=0.30 y=0.32	colored diffused	18.0 ... 35.5 28.0 ... 71.0	77 (typ.) 140 (typ.)	10	120	Q62703-Q5107 Q62703-Q6239	1
	LW T673-Q2R2-3C5D LW T673-R2S2-3C5D	white	x=0.32 y=0.31	colored diffused	90.0 ... 180.0 140.0 ... 280.0	390 (typ.) 610 (typ.)	20	120	Q62703-Q4836 Q62703-Q4686	
	LW T67C-S1T1-3C5D LW T67C-T1U2-3C5D	white	x=0.32 y=0.31	colored diffused	180 ... 355 280 ... 710	800 (typ.) 1500 (typ.)	20	120	Q65110-A0060 Q65110-A0061	

 Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I _V) [deg.]	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ _V [mlm]	at I _F [mA]			

Hyper TOPLED (Forts.)

Hyper TOPLED (cont'd)

	LY T686-Q1R1-26 LY T686-R1S2-26	yellow	587	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q65110-A0453 Q65110-A0454	1
	LB T68C-N2P2-35 LB T68C-P2R1-35	blue	470	colorless clear	35.5 ... 71.0 56.0 ... 140.0	160 (typ.) 290 (typ.)	20	120	Q62703-Q6290 Q62703-Q6291	
	LT T68C-R2S2-35 LT T68C-S2U1-35	true green	528	colorless clear	140.0 ... 280.0 224.0 ... 560.0	630 (typ.) 1100 (typ.)	20	120	Q62703-Q6294 Q62703-Q6293	

Power TOPLED

Power TOPLED

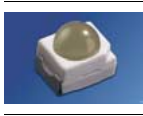
	LS E675-S1T1-1-0 LS E675-T1U2-1-0	super-red	633	colorless clear	180 ... 355 280 ... 710	770 (typ.) 1400 (typ.)	50	120	Q62703-Q6103 Q62703-Q6104	
	LA E675-T1U1-24-1 LA E675-U1V1-24-1	amber	617	colorless clear	280 ... 560 450 ... 900	1260 (typ.) 2000 (typ.)	50	120	Q62703-Q4976 Q62703-Q5918	
	LY E675-T1U1-26-1 LY E675-U1V2-26-1	yellow	587	colorless clear	280 ... 560 450 ... 1120	1260 (typ.) 2300 (typ.)	50	120	Q62703-Q6026 Q62703-Q6298	
	LP E675-P1Q2-25	pure green	560	colorless clear	45 ... 112	230 (typ.)	50	120	on request	
	LY E67B-U2AA-26-1	yellow	587	colorless clear	560 ... 1400	2900 (typ.)	50	120	Q62703-Q6329	
	LA E67B-U2AA-24-1	amber	617	colorless clear	560 ... 1400	2900 (typ.)	50	120	Q62703-Q5965	
	LO E67B-U2AA-24	orange	606	colorless clear	560 ... 1400	2900 (typ.)	50	120	Q62703-Q6010	
	LS E67B-T2V1-1-1	super-red	633	colorless clear	355 ... 900	1900 (typ.)	50	120	Q65110-A0178	
	LA E67F-AABA-24-1	amber	617	colorless clear	1120 ... 2240	5000 (typ.)	50	120	on request	3
	LB E673-N1P1-35 LB E673-P1Q2-35	blue	469	colorless clear	28 ... 56 45 ... 112	120 (typ.) 220 (typ.)	30	120	Q62703-Q4844 Q62703-Q4890	
	LV E673-Q2R2-35 LV E673-R2T1-35	verde	503	colorless clear	90 ... 180 140 ... 355	390 (typ.) 700 (typ.)	30	120	on request on request	
	LT E673-R1S1-35 LT E673-S1T2-35	true green	525	colorless clear	112 ... 224 180 ... 450	490 (typ.) 880 (typ.)	30	120	on request on request	
	LB E67C-P2Q2-35 LB E67C-Q2S1-35	blue	469	colorless clear	56 ... 112 90 ... 224	250 (typ.) 470 (typ.)	30	120	Q62703-Q6235 Q62703-Q6236	
	LV E67C-S2T2-35 LV E67C-T2V1-35	verde	503	colorless clear	224 ... 450 355 ... 900	1000 (typ.) 1900 (typ.)	30	120	Q62703-Q6286 Q65110-A0185	
	LT E67C-S2T2-35 LT E67C-T2V1-35	true green	525	colorless clear	224 ... 450 355 ... 900	1000 (typ.) 1900 (typ.)	30	120	Q65110-A0273 Q65110-A0274	
	LW E673-R2S2-3C5D LW E673-S2U1-3C5D	white	x=0.32 y=0.31	colored diffused	140 ... 280 224 ... 560	610 (typ.) 1100 (typ.)	30	120	Q62703-Q4862 Q62703-Q4902	
	LW E67C-T1U1-3C5D LW E67C-U1V2-3C5D	white	x=0.32 y=0.31	colored diffused	280 ... 560 450 ... 1120	1250 (typ.) 2400 (typ.)	30	120	Q62703-Q6132 Q62703-Q6133	

■ Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN
LIGHT EMITTING DIODES
SMT-LED
SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ _V [mlm]	at I _F [mA]			

TOPLED mit Linse
TOPLED with Lens

	LP T655-Q1R2-25	pure green	560	colorless clear	71 ... 180	140 (typ.)	30	60	Q62703-Q6399	4
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Power TOPLED mit Linse
Power TOPLED with Lens

	LS E655-U2AA-1-1	super-red	633	colorless clear	560 ... 1400	1100 (typ.)	50	60	Q62703-Q5996	4
	LA E655-V2AB-24-1	amber	617	colorless clear	900 ... 1800 1400 ... 3550	1260 (typ.) 2300 (typ.)	50	60	Q62703-Q5837	
	LA E655-ABCA-24-1								Q62703-Q5838	
	LY E655-V2AB-26-1	yellow	587	colorless clear	900 ... 1800 1400 ... 3550	1260 (typ.) 2300 (typ.)	50	60	Q62703-Q5912	
	LY E655-ABCA-26-1								Q62703-Q5913	
	LA E65B-ABCA-24-1	amber	617	colorless clear	1400 ... 3550	2900 (typ.)	50	60	Q62703-Q5982	4
	LA E65F-CADA-24-1	amber	617	colorless clear	2800 ... 5600	5000 (typ.)	50	60	Q65110-A0633	

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					E _V [mlux]	Φ _V [mlm]	at I _F [mA]			

Power TOPLED mit Linse
Power TOPLED with Lens

	LA E63B-CBEA-24-1	amber	617	colorless clear	3550 ... 9000	2900 (typ.)	50	30	Q65110-A0119	4
	LY E63B-CBEA-26-1	yellow	587	colorless clear	3550 ... 9000	2900 (typ.)	50	30	Q65110-A0091	
	LB E63C-S2U1-35	blue	469	colorless clear	224 ... 560	230 (typ.)	30	20	Q65110-A0079	
	LV E63C-V2AB-35	verde	503	colorless clear	900 ... 1800 1400 ... 3550	785 (typ.) 1450 (typ.)	30	20	Q65110-A0256	
	LV E36C-ABCA-35								Q65110-A0257	
	LT E63C-V2AB-35	true green	525	colorless clear	900 ... 1800 1400 ... 3550	785 (typ.) 1450 (typ.)	30	20	Q65110-A0105	4
	LT E63C-ABCA-35								Q65110-A0106	

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					Φ _V [mlm]	I _V [mcd]	at I _F [mA]			

Golden Dragon
Golden Dragon

	LA W57B-FYGY-24	amber	617	colorless clear	13000 ... 24000	6000 (typ.)	400	120	Q65110-A0371	9
	LY W57B-FYGY-26	yellow	587	colorless clear	13000 ... 24000	6000 (typ.)	400	120	Q65110-A0372	

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

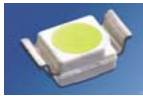
SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper TOPLED RG (Reverse Gullwing)

Hyper TOPLED RG (Reverse Gullwing)

	LS T776-P1Q1-1 LS T776-Q1R2-1	super-red	633	colorless clear	45.0 ... 90.0 71.0 ... 180.0	190 (typ.) 350 (typ.)	20	120	Q62703-Q5103 Q62703-Q5104	2
	LA T776-Q1R1-1 LA T776-R1S2-1	amber	615	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4984 Q62703-Q4985	
	LO T776-Q2R2-24 LO T776-R2T1-24	orange	606	colorless clear	90.0 ... 180.0 140.0 ... 355.0	390 (typ.) 690 (typ.)	20	120	Q62703-Q5052 Q62703-Q5053	
	LY T776-Q1R1-26 LY T776-R1S2-26	yellow	587	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q65110-A0455 Q65110-A0456	
	LP T776-L1M2-25	pure green	560	colorless clear	11.2 ... 28.0	60 (typ.)	20	120	Q65110-A0240	
	LB T773-M2N2-35 LB T773-N2Q1-35	blue	470	colorless clear	22.4 ... 45.0 35.5 ... 90.0	100 (typ.) 180 (typ.)	20	120	Q62703-Q5761 Q62703-Q5760	
	LV T773-Q1R1-35 LV T773-R1S2-35	verde	505	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4914 Q62703-Q4915	
	LT T773-Q1R2-35 LT T773-R2T1-35	true green	528	colorless clear	90.0 ... 180.0 140.0 ... 355.0	390 (typ.) 700 (typ.)	20	120	Q62703-Q4858 Q62703-Q4899	
	LW T773-Q2R2-3C5D LW T773-R2S2-3C5D	white	x=0.32 y=0.31	colored diffused	90.0 ... 180.0 140.0 ... 280.0	390 (typ.) 610 (typ.)	20	120	Q62703-Q4951 Q62703-Q4952	

LC TOPLED (Niedrigstrom)

LC TOPLED (Low Current)

	LS T679-D2E2-1 LS T679-E2F2-1 LS T679-F2G2-1	super-red	628	colorless clear	0.56 ... 1.12 0.90 ... 1.80 1.40 ... 2.80	2.5 (typ.) 3.9 (typ.) 6.1 (typ.)	2	120	Q62703-Q5098 Q62703-Q5099 Q62703-Q5100	1
	LY T679-D2E2-1 LY T679-E2F2-1 LY T679-F2G2-1	yellow	587	colorless clear	0.56 ... 1.12 0.90 ... 1.80 1.40 ... 2.80	2.5 (typ.) 3.9 (typ.) 6.1 (typ.)	2	120	Q62703-Q5136 Q62703-Q5137 Q62703-Q5138	
	LG T679-E1F1-1 LG T679-F1G2-1	green	570	colorless clear	0.71 ... 1.40 1.12 ... 2.80	3.1 (typ.) 5.5 (typ.)	2	120	Q62703-Q5016 Q62703-Q5017	

Nicht für Neuentwicklungen / Not for new design

Mini TOPLED

Mini TOPLED

	LS M670-H2J2-1 LS M670-J2L1-1	super-red	628	colorless clear	3.55 ... 7.1 5.60 ... 14.0	15 (typ.) 28 (typ.)	10	120	Q62703-Q5083 Q62703-Q5084	5
	LO M670-H2J2-24 LO M670-J2L1-24	orange	606	colorless clear	3.55 ... 7.1 5.60 ... 14.0	15 (typ.) 28 (typ.)	10	120	Q62703-Q5038 Q62703-Q5039	
	LY M670-H2J2-26 LY M670-J2L1-26	yellow	587	colorless clear	3.55 ... 7.1 5.60 ... 14.0	15 (typ.) 28 (typ.)	10	120	Q62703-Q5121 Q62703-Q5122	
	LG M670-J2K2-1 LG M670-K2M1-1	green	570	colorless clear	5.60 ... 11.2 9.00 ... 22.4	25 (typ.) 45 (typ.)	10	120	Q62703-Q5006 Q62703-Q5007	
	LP M670-F2G2-1 LP M670-G2J1-1	pure green	560	colorless clear	1.40 ... 2.8 2.24 ... 5.6	6 (typ.) 11 (typ.)	10	120	Q62703-Q5060 Q62703-Q5061	
	LS M67K-G2H2-1 LS M67K-H2K1-1	super-red	630	colorless clear	2.24 ... 4.50 3.55 ... 9.00	10 (typ.) 18 (typ.)	2	120	Q65110-A0314 Q65110-A0332	
	LO M67K-J1K1-24 LO M67K-K1L2-24	orange	606	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20 (typ.) 35 (typ.)	2	120	Q65110-A0308 Q65110-A0309	
	LY M67K-H1J1-26 LY M67K-J1K2-26	yellow	587	colorless clear	2.80 ... 5.60 4.5 ... 11.20	13 (typ.) 25 (typ.)	2	120	Q65110-A0298 Q65110-A0292	

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper Mini TOPLED

Hyper Mini TOPLED

	LS M676-N2P2-1 LS M676-P2R1-1	super-red	633	colorless clear	35.5 ... 71.0 56.0 ... 140.0	150 (typ.) 280 (typ.)	20	120	Q62703-Q5085 Q62703-Q5086	5
	LA M676-P2Q2-1 LA M676-Q2S1-1	amber	615	colorless clear	56.0 ... 112.0 90.0 ... 224.0	240 (typ.) 440 (typ.)	20	120	Q62703-Q4978 Q62703-Q4979	
	LO M676-Q1R1-24 LO M676-R1S2-24	orange	606	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q5040 Q62703-Q5041	
	LY M676-P2Q2-26 LY M676-Q2S1-26	yellow	587	colorless clear	56.0 ... 112.0 90.0 ... 224.0	240 (typ.) 440 (typ.)	20	120	Q62703-Q5123 Q62703-Q5124	
	LG M676-N1P2-1	green	570	colorless clear	28 ... 71	150 (typ.)	20	120	Q65110-A0414	
	LG M675-Q1R1-1	pure green	560	colorless clear	71 ... 140	310 (typ.)	30	120	Q65110-A0416	
	LB M676-J1K1-1 LB M676-K1L2-1	blue	465	colorless clear	4.5 ... 9.0 7.1 ... 18.0	20 (typ.) 36 (typ.)	10	120	Q62703-Q4990 Q62703-Q4991	
	LB M673-M1N1-35 LB M673-N1P2-35	blue	470	colorless clear	18.0 ... 35.5 28.0 ... 71.0	77 (typ.) 140 (typ.)	20	120	Q62703-Q4840 Q62703-Q4889	
	LV M673-P2Q2-35 LV M673-Q2S1-35	verde	505	colorless clear	56.0 ... 112.0 90.0 ... 224.0	240 (typ.) 440 (typ.)	20	120	Q62703-Q4847 Q62703-Q4893	
	LT M673-Q1R1-35 LT M673-R1S2-35	true green	528	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4853 Q62703-Q4897	
	LW M673-Q1R1-3C5D LW M673-R1S1-3C5D	white	x=0.32 y=0.31	colored diffused	71.0 ... 140.0 112.0 ... 224.0	310 (typ.) 490 (typ.)	20	120	Q62703-Q4861 Q62703-Q4901	
	LW M67C-R2S2-3C5D LW M67C-S2U1-3C5D	white	x=0.32 y=0.31	colored diffused	140 ... 280 224 ... 560	630 (typ.) 1150 (typ.)	20	120	Q65110-A0059 Q65110-A0188	

 Nicht für Neuentwicklungen / Not for new design

 Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Mini TOPLED RG (Reverse Gullwing) through-hole

Mini TOPLED RG (Reverse Gullwing) through-hole

	LG M470-J2K2-1 LG M470-K2M1-1	green	570	colorless clear	5.60 ... 11.2 9.00 ... 22.4	25.0 (typ.) 45.0 (typ.)	10	120	Q62703-Q6023 Q62703-Q6166	6
	LG M47K-G1H1-1 LG M47K-H1J2-1	green	570	colorless clear	1.80 ... 3.55 2.80 ... 7.10	8.0 (typ.) 15.0 (typ.)	2	120	on request on request	

Mini TOPLED RG (Reverse Gullwing)

Mini TOPLED RG (Reverse Gullwing)

	LS M770-H2J2-1 LS M770-J2L1-1	super-red	628	colorless clear	3.55 ... 7.1 5.60 ... 14.0	15.0 (typ.) 28.0 (typ.)	10	120	Q62703-Q5087 Q62703-Q5088	6
	LO M770-H2J2-24 LO M770-J2L1-24	orange	606	colorless clear	3.55 ... 7.1 5.60 ... 14.0	15.0 (typ.) 28.0 (typ.)	10	120	Q62703-Q5042 Q62703-Q5043	
	LY M770-J1K1-26 LY M770-K1L2-26	yellow	587	colorless clear	4.50 ... 9.0 7.10 ... 18.0	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5125 Q62703-Q5126	
	LG M770-J2K2-1 LG M770-K2M1-1	green	570	colorless clear	5.60 ... 11.2 9.00 ... 22.4	25.0 (typ.) 45.0 (typ.)	10	120	Q62703-Q5008 Q62703-Q5009	
	LP M770-F2G2-1 LP M770-G2J1-1	pure green	560	colorless clear	1.40 ... 2.8 2.24 ... 5.6	6.1 (typ.) 11.0 (typ.)	10	120	Q62703-Q5062 Q62703-Q5063	

LC Mini TOPLED RG (Reverse Gullwing)

LC Mini TOPLED RG (Reverse Gullwing)

	LS M779-D1E1-1 LS M779-E1F1-1 LS M779-F1G2-1	super-red	628	colorless clear	0.45 ... 0.90 0.71 ... 1.40 1.12 ... 2.80	2.0 (typ.) 3.1 (typ.) 5.5 (typ.)	2	120	Q62703-Q5091 Q62703-Q5092 Q62703-Q5093	6
	LY M779-D1E1-1 LY M779-E1F1-1 LY M779-F1G1-1	yellow	587	colorless clear	0.45 ... 0.90 0.71 ... 1.40 1.12 ... 2.24	2.0 (typ.) 3.1 (typ.) 4.9 (typ.)	2	120	Q62703-Q5129 Q62703-Q5130 Q62703-Q5131	
	LG M779-C1F2-1	green	570	colorless clear	≥ 0.28 (1.0 typ.)	≥ 1.0 (typ.)	2	120	Q62703-Q3049	

Hyper Mini TOPLED RG (Reverse Gullwing)

Hyper Mini TOPLED RG (Reverse Gullwing)

	LS M776-N2P2-1 LS M776-P2R1-1	super-red	633	colorless clear	35.5 ... 71 56.0 ... 140	150 (typ.) 280 (typ.)	20	120	Q62703-Q5089 Q62703-Q5090	6
	LA M776-P2Q2-1 LA M776-Q2S1-1	amber	617	colorless clear	56.0 ... 112 90.0 ... 224	240 (typ.) 440 (typ.)	20	120	Q62703-Q4980 Q62703-Q4981	
	LO M776-Q1R1-24 LO M776-R1S2-24	orange	606	colorless clear	71.0 ... 140 112.0 ... 280	310 (typ.) 560 (typ.)	20	120	Q62703-Q5044 Q62703-Q5045	
	LY M776-P2Q2-26 LY M776-Q2S1-26	yellow	587	colorless clear	56.0 ... 112 90.0 ... 224	240 (typ.) 440 (typ.)	20	120	Q62703-Q5127 Q62703-Q5128	

SIDELED

SIDELED

	LH A674-L2M2-1 LH A674-M2P1-1	hyper-red	645	colorless clear	14.00 ... 28.00 22.40 ... 56.00	62.0 (typ.) 110.0 (typ.)	10	120	Q62703-Q5022 Q62703-Q5023	8
	LS A670-H2J2-1 LS A670-J2L1-1	super-red	628	colorless clear	3.55 ... 7.10 5.60 ... 14.00	15.0 (typ.) 28.0 (typ.)	10	120	Q62703-Q5072 Q62703-Q5073	
	LO A670-J1K1-24 LO A670-K1L2-24	orange	606	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5030 Q62703-Q5031	
	LY A670-J1K1-26 LY A670-K1L2-26	yellow	587	colorless clear	4.50 ... 9.00 7.10 ... 18.00	20.0 (typ.) 36.0 (typ.)	10	120	Q62703-Q5109 Q62703-Q5110	
	LG A670-K1L1-1 LG A670-L1M2-1	green	570	colorless clear	7.10 ... 14.00 11.20 ... 28.00	31.0 (typ.) 56.0 (typ.)	10	120	Q62703-Q4998 Q62703-Q4999	
	LP A670-G1H1-1 LP A670-H1J2-1	pure green	560	colorless clear	1.80 ... 3.55 2.80 ... 7.10	7.7 (typ.) 14.0 (typ.)	10	120	Q62703-Q5054 Q62703-Q5055	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

SIDELED (Forts.)

SIDELED (cont'd)

	LS A67K-H1J1-1	super-red	630	colorless clear	2.8 ... 5.6	13 (typ.)	2	120	Q65110-A0330	8
	LS A67K-J1K2-1				4.5 ... 11.2	25 (typ.)			Q65110-A0331	
	LY A67K-H2J2-26	yellow	587	colorless clear	3.55 ... 7.1	15 (typ.)	2	120	Q65110-A0337	
	LY A67K-J2L1-26				5.6 ... 14.0	30 (typ.)			Q65110-A0338	

Super SIDELED

Super SIDELED

	LG A672-P1Q1-1 LG A672-Q1R2-1	green	570	colorless clear	45.0 ... 90.0 71.0 ... 180.0	190 (typ.) 350 (typ.)	50	120	Q62703-Q5000 Q62703-Q5001	8
	LP A672-L2M2-1 LP A672-M2P1-1	pure green	560	colorless clear	14.0 ... 28.0 22.4 ... 56.0	62 (typ.) 110 (typ.)	50	120	Q62703-Q5056 Q62703-Q5057	

LC SIDELED (Niedrigstrom)

LC SIDELED (Low Current)

	LS A679-D2E2-1	super-red	628	colorless clear	0.56 ... 1.12	2.5 (typ.)	2	120	Q62703-Q5076	8
	LS A679-E2F2-1				0.90 ... 1.80	3.9 (typ.)			Q62703-Q5077	
	LS A679-F2G2-1				1.40 ... 2.80	6.1 (typ.)			Q62703-Q5078	
	LY A679-D2E2-1	yellow	587	colorless clear	0.56 ... 1.12	2.5 (typ.)	2	120	Q62703-Q5113	
	LY A679-E2G1-1				0.90 ... 2.24	4.4 (typ.)			Q62703-Q5114	
	LG A679-E1F1-1	green	570	colorless clear	0.71 ... 1.40	3.1 (typ.)	2	120	Q62703-Q5002	
LG A679-F1G2-1	1.12 ... 2.80				5.5 (typ.)	Q62703-Q5003				

Hyper SIDELED

Hyper SIDELED

	LS A676-N2P2-1 LS A676-P2R1-1	super-red	633	colorless clear	35.5 ... 71.0 56.0 ... 140.0	150 (typ.) 280 (typ.)	20	120	Q62703-Q5074 Q62703-Q5075	8
	LA A676-Q1R1-1 LA A676-R1S2-1	amber	615	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4972 Q62703-Q4973	
	LO A676-Q1R1-24 LO A676-R1S2-24	orange	606	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q5032 Q62702-Q5033	
	LY A676-P2Q2-26 LY A676-Q2S1-26	yellow	587	colorless clear	56.0 ... 112.0 90.0 ... 224.0	240 (typ.) 440 (typ.)	20	120	Q62703-Q5111 Q62703-Q5112	
	LP A676-L1M2-25	pure green	560	colorless clear	11.2 ... 28.0	60 (typ.)	20	120	on request	
	LB A676-J2K2-1 LB A676-K2M1-1	blue	465	colorless clear	5.6 ... 11.2 9.0 ... 22.4	25 (typ.) 45 (typ.)	10	120	Q62703-Q4986 Q62703-Q4987	
	LY A675-S1T2-26	yellow	587	colorless clear	180.0 ... 450.0	900 (typ.)	30	120	Q62703-Q5154	
	LP A675-N1P2-25		560		28.0 ... 71.0	150 (typ.)			Q62703-Q6398	
	LS A67B-S2U1-1	orange	633	colorless clear	224.0 ... 560.0	1200 (typ.)	30	120	Q62703-Q6427	
	LO A67B-T1U2-24		606		280.0 ... 710.0	1500 (typ.)			Q62703-Q6009	
	LB A673-M2N2-35 LB A673-N2Q1-35	blue	470	colorless clear	22.4 ... 45.0 35.5 ... 90.0	100 (typ.) 180 (typ.)	20	120	Q62703-Q4839 Q62703-Q4888	
	LV A673-Q1R1-35 LV A673-R1S2-35	verde	505	colorless clear	71.0 ... 140.0 112.0 ... 280.0	310 (typ.) 560 (typ.)	20	120	Q62703-Q4846 Q62703-Q4892	
	LT A673-Q2R2-35 LT A673-R2T1-35	true green	528	colorless clear	90.0 ... 180.0 140.0 ... 355.0	390 (typ.) 700 (typ.)	20	120	Q62703-Q4852 Q62703-Q4896	
	LB A67C-N2P2-35 LB A67C-P2R1-35	blue	470	colorless clear	35.5 ... 71.0 56.0 ... 140.0	160 (typ.) 290 (typ.)	20	120	Q62703-Q6426 Q62703-Q6425	
	LT A67C-R2S2-35 LT A67C-S2U1-35	true green	528	colorless clear	140.0 ... 280.0 224.0 ... 560.0	630 (typ.) 1100 (typ.)	20	120	Q62703-Q6423 Q62703-Q6424	

LUMINESZENZDIODEN
LIGHT EMITTING DIODES
SMT-LED
SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper SIDELED (Forts.)
Hyper SIDELED (cont'd)

	LW A676-M1N1-25 LW A676-N1P2-25	white	x=0.30 y=0.32	colored diffused	18.0 ... 35.5 28.0 ... 71.0	77 (typ.) 140 (typ.)	10	120	Q62703-Q5105 Q62703-Q5106	8
	LW A673-Q2R2-35 LW A673-R2S2-35	white	x=0.32 y=0.31	colored diffused	90.0 ... 180.0 140.0 ... 280.0	390 (typ.) 610 (typ.)	20	120	Q62703-Q4860 Q62703-Q4900	
	LWA67C-S1T1-3C5D LWA67C-T1U2-3C5D	white	x=0,32 y=0,31	colored diffused	180.0 ... 355.0 280.0 ... 710.0	800 (typ.) 1500 (typ.)	20	120	Q65110-A0063 Q65110-A0058	

Micro SIDELED
Micro SIDELED

	LS Y876-N1P1-1 LS Y876-P1Q2-1	super-red	633	colorless clear	28.0 ... 56.0 45.0 ... 112.0	120 (typ.) 230 (typ.)	20	120	Q62703-Q6195 Q62703-Q6196	10
	LA Y876-P1Q1-1 LA Y876-Q1R2-1	amber	615	colorless clear	45.0 ... 90.0 71.0 ... 180.0	200 (typ.) 370 (typ.)	20	120	Q62703-Q6193 Q62703-Q6194	
	LO Y876-P2Q2-24 LO Y876-Q2S1-24	orange	606	colorless clear	56.0 ... 112.0 90.0 ... 224.0	240 (typ.) 440 (typ.)	20	120	Q62703-Q6199 Q62703-Q6200	
	LY Y876-P1Q1-26 LY Y876-Q1R2-26	yellow	587	colorless clear	45.0 ... 90.0 71.0 ... 180.0	200 (typ.) 370 (typ.)	20	120	Q62703-Q6197 Q62703-Q6198	
	LG Y870-J2K2-1 LG Y870-K2M1-1	green	570	colorless clear	5.6 ... 11.2 9.0 ... 22.4	25 (typ.) 45 (typ.)	10	120	Q62703-Q6189 Q62703-Q6190	
	LB Y876-J1K1-1 LB Y876-K1L2-1	blue	465	colorless clear	4.5 ... 9.0 7.1 ... 18.0	20 (typ.) 36 (typ.)	10	120	Q62703-Q6185 Q62703-Q6186	
	LB Y87S-K1L1-35 LB Y87S-L1M2-35	blue	470	colorless clear	7.1 ... 14.0 11.2 ... 28.0	30 (typ.) 50 (typ.)	10	120	Q62703-Q6187 Q62703-Q6188	
	LT Y87S-N1P1-35 LT Y87S-P1Q2-35	true green	528	colorless clear	28.0 ... 56.0 45.0 ... 112.0	120 (typ.) 230 (typ.)	10	120	Q62703-Q6191 Q62703-Q6192	
	LW Y87C-R2S1-35 LW Y87C-S2T2-35	white	x=0.33 y=0.33	colored diffused	140.0 ... 224.0 224.0 ... 450.0	550 (typ.) 1000 (typ.)	20	120	Q62703-Q6393 Q62703-Q6394	
	LW Y87S-N1P1-35 LW Y87S-P1Q2-35	white	x=0.32 y=0.31	colored diffused	28.0 ... 56.0 45.0 ... 112.0	125 (typ.) 230 (typ.)	10	120	Q65110-A0128 Q65110-A0129	

LUMINESZENZDIODEN
LIGHT EMITTING DIODES
SMT-LED
SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	I_V [mcd]			2ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					color 1	color 2	at I_F [mA]			

Multi TOPLED
Multi TOPLED

	LSG T670- HL-1+HL-1	super-red/ green	628/ 570	colorless clear	2.8 ... 18.0	2.8 ... 18.0	10	120	Q62703-Q4316	11
	LSY T670- JL-1+JL-1	super-red/ yellow	628/ 590	colorless clear	4.5 ... 18.0	4.5 ... 18.0	10	120	Q62703-Q4317	
	LSP T670- HK-1+GK-1	super-red/ pure green	628/ 560	colorless clear	2.8 ... 11.2	1.8 ... 11.2	10	120	Q62703-Q4318	
	LYG T670- JL-1+JL-1	yellow/ green	590/ 570	colorless clear	4.5 ... 18.0	4.5 ... 18.0	10	120	Q62703-Q4502	
	LOP T670- JK-1+GJ-1	orange/ pure green	606/ 560	colorless clear	4.5 ... 11.2	1.8 ... 7.1	10	120	Q65110-A0466	
	LOG T671- HL-1+KL-1	orange/ green	606/ 570	colorless clear	2.8 ... 18.0	7.1 ... 18.0	10	120	Q62703-Q4320	
	LSG T671- JL-1+KM-1	super-red/ green	628/ 570	colorless clear	4.5 ... 18.0	7.1 ... 28.0	10	120	Q62703-Q4321	

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	I_V [mcd]			2ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					color 1	color 2	at I_F [mA]			

Hyper Multi TOPLED
Hyper Multi TOPLED

	LSY T676- PQ-1+PR-1	super-red/ yellow	633/ 587	colorless clear	45 ... 112	45 ... 180	20	120	Q62703-Q3428	11
	LSB T676- M2P1-1+K1L2-1	super-red/ blue	633/ 467	colorless clear	22.4 ... 56.0	7.1 ... 18.0	10	120	Q62703-Q5895	
	LSY T675- R1S2-1+S1T2-1	super-red/ yellow	633/ 587	colorless clear	112 ... 280	180 ... 450	30	120	Q62703-Q6350	
	LSY T67B- S1T2-1+T1U2-1	super-red/ yellow	633/ 588	colorless clear	180 ... 450	280 ... 710	30	120	Q65110-A0272	
	LHG T680- LM-1+KM-1	hyper-red/ green	645/ 570	colorless clear and black painted package surface	11.2 ... 28.0	7.1 ... 28.0	10	120	on request	12

LUMINESZENZDIODEN
LIGHT EMITTING DIODES
SMT-LED
SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	I_v [mcd]				2ϕ (typ.) (50% I_v) [deg].	Bestellnummer Ordering code	Fig.
					color 1	color 2	color 3	at I_F [mA]			

	LATB T66B-ST-1+ST-78+PQ-1	amber/ true green/ blue	617/ 528/ 465	colorless diffused and black painted package surface	180 ... 450	180 ... 450	45 ... 112	20	120	Q65110-A0152	13
	LATB T66B-ST-1+ST-7+PQ-1	amber/ true green/ blue	617/ 528/ 466	colorless diffused and black painted package surface	180 ... 450	180 ... 450	45 ... 112	20	120	Q62703-A0181	
	LATB T66B-ST-1+ST-8+PQ-1	amber/ true green/ blue	617/ 528/ 467	colorless diffused and black painted package surface	180 ... 450	180 ... 450	45 ... 112	20	120	Q62703-A0182	
	LHGB T686-KL-1+KL-1+JK-1	hyper-red/ green/ blue	645/ 570/ 465	colorless clear and black painted package surface	7.1 ... 18.0	7.1 ... 18.0	4.5 ... 11.2	10	120	on request	
	LATB T686-QR-1+RS-1+KL-1	amber/ true green/ blue	617/ 528/ 465	colorless clear and black painted package surface	71 ... 180	112 ... 280	7.1 ... 18.0	20	120	Q62703-Q5759	
	LATB T683-QR-1+RS-1+MN-1	amber/ true green/ blue	617/ 528/ 465	colorless clear and black painted package surface	71 ... 180	112 ... 280	18 ... 45	20	120	Q62703-Q5976	

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	I_v [mcd]				2ϕ (typ.) (50% I_v) [deg].	Bestellnummer Ordering code	Fig.
					color 1	color 2	color 3	at I_F [mA]			

6-lead-TOPLED
6-lead-TOPLED

	LATB G68B-ST-1+ST-7+PQ-1	amber/ true green/ blue	617/ 528/ 470	colorless clear and black painted package surface	180 ... 450	180 ... 450	45 ... 112	20	120	Q65110-A0213	15
	LATB G68B-ST-1+ST-8+PQ-1	amber/ true green/ blue	617/ 528/ 470	colorless clear and black painted package surface	180 ... 450	180 ... 450	45 ... 112	20	120	Q65110-A0214	

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	I_V [mcd]			2ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					color 1	color 2	at I_F [mA]			

Multi TOPLED (Kathoden auf einer Seite)

Multi TOPLED (Cathodes on one side)

	LSG T677- JL-1+KL-1	super-red/	628/ 570	colorless clear	4.5 ... 18.0	7.1 ... 18.0	10	120	Q62703-Q4327	12
		green								

Multi TOPLED RG (Reverse Gullwing)

Multi TOPLED RG (Reverse Gullwing)

	LSG T770- JL-1+JL-1	super-red/	628/ 570	colorless clear	4.5 ... 18.0	4.5 ... 18.0	10	120	Q62703-Q4328	14
		green								

Multi SIDELED

Multi SIDELED

	LOG A671- JL-1+KM-1	orange/	606/ 570	colorless clear	4.5 ... 18.0	7.1 ... 28.0	10	120	Q62703-Q4322	15
	LSG A671- JL-1+KM-1	super-red/							Q62703-Q4323	

Hyper Multi SIDELED

Hyper Multi SIDELED

	LSY A676- N1R2-1+N1R2-1	super-red/	633/ 587	colorless clear	28 ... 180	28 ... 180	20	120	Q62703-Q3374	15
		yellow								

SMT-LED

SMT-LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2 ϕ (typ.) (50% I _V) [deg.]	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ_V [mlm]	at I _F [mA]			
SmartLED™										
	LS L89K-G1H1-1 LS L89K-H1J2-1	super-red	630	colorless diffused	1.80 ... 3.55 2.80 ... 7.10	10 (typ.) 20 (typ.)	2	160	Q62703-Q6432 Q62702-Q6433	16
	LO L89K-H2J2-24 LO L89K-J2L1-24	orange	606	colorless diffused	5.60 ... 14.00 2.24 ... 4.50	20 (typ.) 40 (typ.)	2	160	Q62703-Q6428 Q62703-Q6429	
	LY L89K-G2H2-26 LY L89K-H2K1-26	yellow	587	colorless diffused	2.24 ... 4.50 3.55 ... 9.00	15 (typ.) 25 (typ.)	2	160	Q62703-Q6436 Q62703-Q6437	
	LS L896-M1N1-1 LS L896-N1P2-1	super-red	633	colorless diffused	18.0 ... 35.5 28.0 ... 71.0	105 (typ.) 200 (typ.)	20	160	Q62703-Q6020 Q62703-Q6160	
	LA L896-P1Q1-1 LA L896-Q1R2-1	amber	615	colorless diffused	45.0 ... 90.0 71.0 ... 180.0	270 (typ.) 500 (typ.)	20	160	Q62703-Q6203 Q62703-Q6204	
	LO L896-P1Q1-24 LO L896-Q1R2-24	orange	606	colorless diffused	45.0 ... 90.0 71.0 ... 180.0	270 (typ.) 500 (typ.)	20	160	Q62703-Q6207 Q62703-Q6208	
	LY L896-P1Q1-26 LY L896-Q1R2-26	yellow	587	colorless diffused	45.0 ... 90.0 71.0 ... 180.0	270 (typ.) 500 (typ.)	20	160	Q62703-Q6021 Q62703-Q6164	
		LG L890-K1L1-1 LG L890-L1M2-1	green	570	colorless diffused	7.1 ... 14.0 11.2 ... 28.0	40 (typ.) 80 (typ.)	20	160	
		LB L89S-K1L1-35 LB L89S-L1M2-35	blue	470	colorless diffused	7.1 ... 14.0 11.2 ... 28.0	40 (typ.) 80 (typ.)	10	160	
	LT L89S-M2N2-35 LT L89S-N2Q1-35	true green	528	colorless diffused	22.4 ... 45.0 35.5 ... 90.0	135 (typ.) 250 (typ.)	20	160	Q62703-Q6201 Q62703-Q6202	
	LB L893-L1M1-35 LB L893-M1N2-35	blue	470	colorless diffused	11.2 ... 22.4 18.0 ... 45.0	65 (typ.) 125 (typ.)	20	160	Q62703-Q6205 Q62703-Q6206	
	LT L893-P1Q1-35 LT L893-Q1R2-35	true green	528	colorless diffused	45.0 ... 90.0 71.0 ... 180.0	270 (typ.) 500 (typ.)	20	160	Q62703-Q6157 Q62703-Q6158	
	LB L89C-M1N1-35 LB L89C-N1P2-35	blue	470	colorless diffused	18.0 ... 35.5 28.0 ... 71.0	105 (typ.) 190 (typ.)	20	160H 130V	on request Q65110-A0157	
	LW L88C-Q1R1-35 LW L88C-R1S2-35	white	x=0.33 y=0.33	colored diffused	71.0 ... 140.0 112.0 ... 280.0	400 (typ.) 750 (typ.)	20	170H 130V	on request on request	
	LW L88S-L1M1-35 LW L88S-M1N2-35 LW L88S-N2P2-35	white	x=0.33 y=0.33	colored diffused	11.2 ... 22.4 18.0 ... 45.0 35.5 ... 71.0	65 (typ.) 120 (typ.) 210 (typ.)	10	170H 130V	Q65110-A0048 Q65110-A0046 Q65110-A0044	

■ Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

CHIPLED

$I_F = 20 \text{ mA}$, $T_A = 25^\circ \text{C}$

CHIPLED

$I_F = 20 \text{ mA}$, $T_A = 25^\circ \text{C}$

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area				2φ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

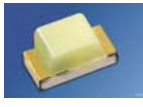
CHIPLED 0603

CHIPLED 0603

	LG Q971	green	570	colorless diffused	7.1	10 (typ.)	20	160	Q62702-P5189	20
	LY Q971	yellow	590	colorless diffused	2.8	6 (typ.)	20	160	Q62703-P5269	

Hyper CHIPLEDD 0603

Hyper CHIPLEDD 0603

	LB Q99A	blue	465	colorless clear	1.8	6 (typ.)	10	160	Q62702-P5184	21
	LB Q993-JK-35 LB Q993-KM-35	blue	470	colorless clear	4.5 7.1	11.2 (typ.) 28 (typ.)	10	160	Q62702-P5438 Q62702-P5439	
	LT Q993	true green	531	colorless clear	28	70 (typ.)	10	160	Q62702-P5328	
	LO Q996	orange	606	colorless clear	35.5	90 (typ.)	20	160	Q62702-P5337	
	LY Q976	yellow	587	colorless diffused	28	60 (typ.)	20	160	Q62702-P5276	20
	LS Q976	super-red	633	colorless diffused	18	50 (typ.)	20	160	Q62702-P5187	
	LW Q98A	white	Cx=0,30 Cy=0,33	colorless diffused	7.1	15 (typ.)	10	160	Q62702-P5185	21
	LW Q983-JL-A2B2	white	Cx=0,35 Cy=0,34	colorless diffused	5	15 (typ.)	6	160	Q62702-P5225	
	LW Q18S-KM-A2B2	white	Cx=0,35 Cy=0,34	colorless diffused	5	15 (typ.)	6	160	Q62702-P5407	22
	LW Q18A-KM-A1B1	white	Cx=0,30 Cy=0,33	colorless diffused	7.1	15 (typ.)	10	160	Q62702-P5445	

CHIPLED 0805

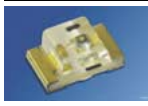
CHIPLED 0805

	LG R971	green	570	colorless diffused	7.1	28 (typ.)	10	160	Q62702-P5179	18
	LO R971	orange	605	colorless diffused	2.8	6 (typ.)	20	160	Q62702-P5180	
	LY R971	yellow	587	colorless diffused	2.8	6 (typ.)	20	160	Q62702-P5181	
	LH R974	hyper-red	645	colorless diffused	11.2	15 (typ.)	20	160	Q62702-P5182	17

LUMINESZENZDIODEN
LIGHT EMITTING DIODES
CHIPLED
 $I_F = 20 \text{ mA}$, $T_A = 25 \text{ °C}$
CHIPLED
 $I_F = 20 \text{ mA}$, $T_A = 25 \text{ °C}$

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Farbe der Licht- austrittsfläche Color of light emitting area	at I_F [mA]			2φ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]				

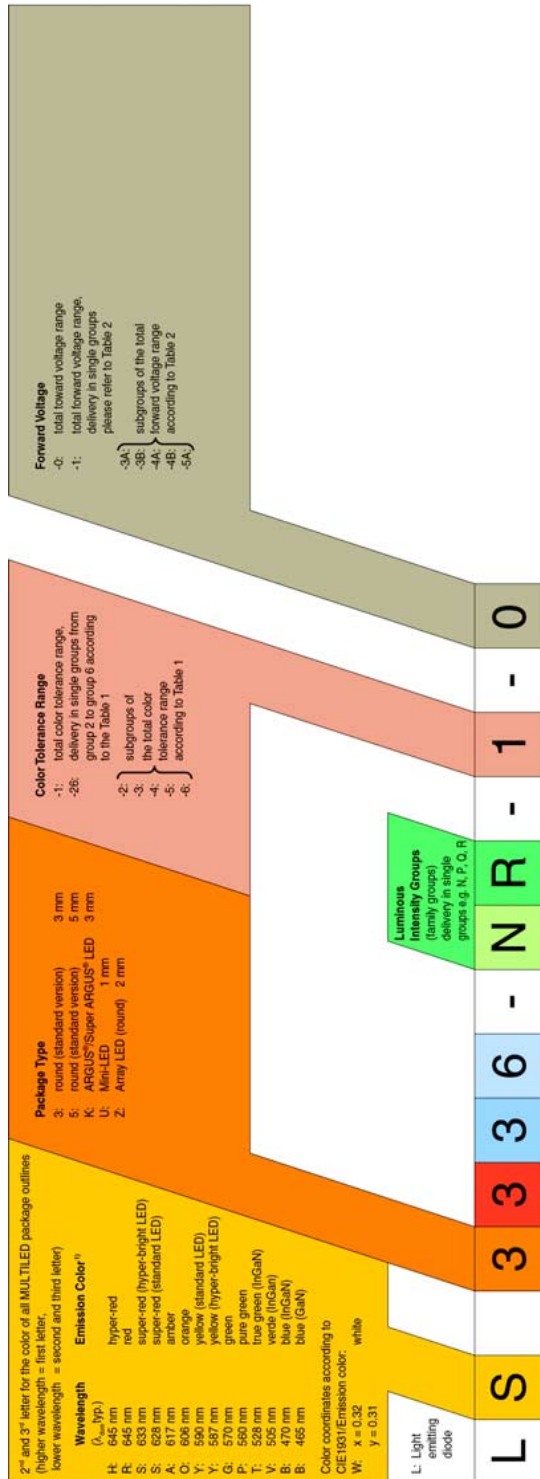
Hyper CHIPLED 0805
Hyper CHIPLED 0805

	LB R99A	blue	465	colorless clear	2.8	10 (typ.)	20	160	Q62702-P5175	19
	LO R976	orange	606	colorless diffused	28	70 (typ.)	20	160	Q62702-P5101	18
	LY R976	yellow	588	colorless diffused	28	60 (typ.)	20	160	Q627072-P5177	
	LS R976	super-red	633	colorless diffused	18	50 (typ.)	20	160	Q62702-P5178	
	LW R98A-LM-A3B3	white	Cx=0,32 Cy=0,34	colorless diffused	11.2	25 (typ.)	20	160	Q62702-P5183	19

CHIPLED 1206
CHIPLED 1206

	LG N971	green	570	colorless diffused	7.1	10 (typ.)	20	160	Q62702-P5191	19
	LY N971	yellow	587	colorless diffused	2.8	6 (typ.)	20	160	Q62702-P5193	
	LH N974	hyper-red	645	colorless diffused	7.1	15 (typ.)	20	160	Q62702-P5192	

Radial-LED-Typenbezeichnungsschema

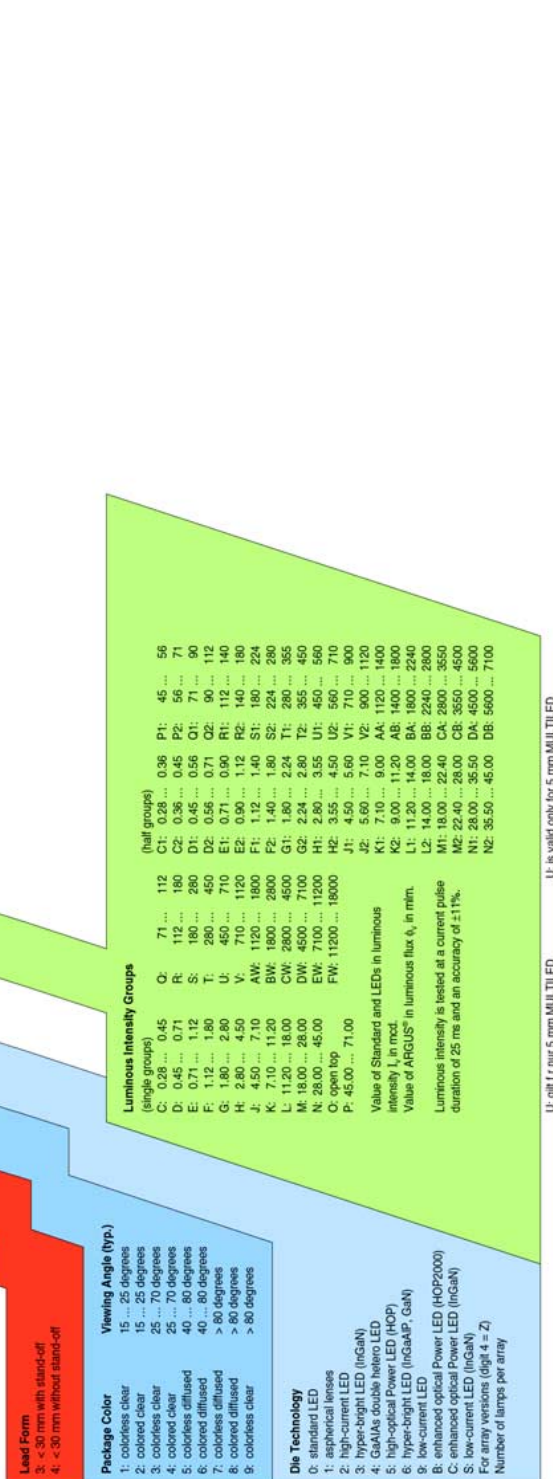


Gurtung von Lumineszenzdiolen

Alle radialen LED können in verschiedenen Gurtvarianten, sowohl nach IEC-Norm 286.2 und 3 als auch nach speziellen Gurtspezifikationen geliefert werden (siehe Kapitel „Gurtung und Verpackung“).

¹⁾ U: gilt für nur 5 mm MULTILED

Radial LED type designation system



Taping of LEDs

All unidirectional LEDs are available in various tape forms, including IEC publication 286.2 and 3 or special tape specifications (see also chapter “Tape and Reel”).

¹⁾ U: is valid only for 5 mm MULTILED

HINWEISE

Parameter des OSRAM LED-Helligkeitsgruppen-Schemas für radiale LEDs

Radial LEDs werden in der Regel in Helligkeitsgruppen gemessen. (Ausnahme sind Argus LEDs).

Die Streuung der Helligkeit in einer Gruppe beträgt $\pm 23\%$. Da die Helligkeit mit einer Toleranz von $\pm 11\%$ gemessen wird, beträgt die max. Schwankungsbreite in einer Verpackungseinheit $\pm 34\%$.

1. In einer Verpackungseinheit/Gurt ist immer nur eine Helligkeitsgruppe enthalten!
Max. Streubreite der Helligkeit innerhalb einer Verpackungseinheit
 $I_{V \min} : I_{V \max}$ bzw. $\Phi_{V \min} : \Phi_{V \max} = 1 : 2$
2. Die Standardlieferform von Serientypen beinhaltet eine untere bzw. eine obere Familiengruppe oder 2 bis 4 Einzelgruppen.

Beispiel für Gruppierungsschema:

LS 3366 - NR untere Familiengruppe
- P Einzelgruppe
- Q Einzelgruppe
- R Einzelgruppe
- PS obere Familiengruppe

Untere Familiengruppe: Der mögliche Lieferumfang beinhaltet die Helligkeitsgruppen N, P, Q, R

Obere Familiengruppe: Der mögliche Lieferumfang beinhaltet die Helligkeitsgruppen P, Q, R, S

Einzelgruppen:

Die technologiebedingte Helligkeits-Streuung der heutigen LED-Herstellprozesse über einen längeren Fertigungszeitraum (Halbleitermaterial - Chipherstellung - Montageprozess), erlaubt keine Zusage einer einzelnen Helligkeitsgruppe.

Daher müssen mindestens 2 Helligkeitsgruppen vorgesehen werden!

Auf Grund von kontinuierlichen Verbesserungen unserer Chip- und LED-Herstellungsprozesse werden sich die LED-Helligkeiten nach oben entwickeln. Über dadurch notwendige Anpassungen der Helligkeitsgruppen werden wir Sie rechtzeitig informieren.

Bei besonders kritischen Anwendungen besteht die Möglichkeit, eine noch engere Selektion (Helligkeits-Halbgruppen / Wellenlängengruppe) durchzuführen. Die Anzahl der Liefergruppen vervielfacht sich dadurch.

Goldene Bestellregel für Einzelgruppen zur Sicherstellung einer kontinuierlichen LED-Belieferung:

In jeder LED-Bestellung muss neben der bestellten "Einzelgruppe" die freigegebene "Reservegruppe" deutlich aufgeführt werden.

Informationen zur Augensicherheit

Die Erfordernis, eine Anmerkung zur Augensicherheit auf LED-Produkte zu drucken, hängt vom Produktdesign und der Anwendung ab. Die Lichtabstrahlung von LEDs ist stark genug, um menschliche Augen zu verletzen. Blicken Sie deshalb zum Augenschutz nie auf kurze Entfernung in den Lichtstrahl einer LED. Unter allen vernünftigerweise vorhersehbaren Bedingungen, bei Einhaltung der „maximum ratings“ nach Datenblatt, werden die Grenzwerte der Klasse 1 nach IEC 60825-1 nicht überschritten. Die LED fällt damit aus dem „scope“ der Laserschutznorm. Die konkrete Schutzklassenzuweisung richtet sich nach den Betriebsbedingungen.

Anmerkungen:

Der Anwender darf keinen Ausbau oder Analyse der LEDs vornehmen, ohne die vorherige schriftliche Zustimmung von Osram OS zu haben. Wenn defekte LEDs gefunden werden, soll der Anwender baldmöglichst Osram OS informieren, bevor er einen Ausbau oder eine Analyse vornimmt. Erscheinungsform und technische Daten des Produktes können zwecks Verbesserung ohne Benachrichtigung verändert werden.

NOTES

Parameters for OSRAM LED Luminous Intensity Group System for Radial LEDs

Radial LEDs are normally measured in luminous intensity groups (except for Argus).

The luminosity variation in one group is $\pm 23\%$. As luminous intensity is tested at a tolerance of $\pm 11\%$, the variation range in one packing unit amounts to $\pm 34\%$.

1. No packing unit/tape ever contains more than one luminous intensity group!
Matching factor of brightness within one packaging unit
 $I_{V \min} : I_{V \max}$ bzw. $\Phi_{V \min} : \Phi_{V \max} = 1 : 2$
2. The standard shipping format for serial types includes a lower or upper family group or 2 to 4 individual groups.

Example of grouping scheme:

LS 3366 - NR lower family group
- P individual group
- Q individual group
- R individual group
- PS upper family group

Lower family group: Scope of delivery includes luminous intensity groups N, P, Q, R

Upper family group: Scope of delivery includes luminous intensity groups P, Q, R, S

Individual groups:

Luminosity variations caused by the technology used in current LED manufacturing processes over a protracted manufacturing period (semiconductor material - chip fabrication - assembly process) mean that it is not possible to assign LEDs to a single luminous intensity group.

For this reason at least two luminous intensity groups must be provided.

Owing to continuous improvements in our chip and LED manufacturing processes, LED luminous intensity values are set to increase. We will inform you in good time of any necessary changes to the luminous intensity groups.

For especially critical applications there is the option of making a narrower selection (luminosity half groups / wavelength group). This multiplies the number of shipment groups.

Golden rule for ordering individual groups to ensure a continuous LED supply:

For any LED order please indicate clearly the released "reserve group" in addition to the ordered "individual group".

Safety Instructions

The need to place eye safety labelling on LED products is dependent upon the product design and the application. The LED's light output is strong enough to injure human eyes. Therefore, for eye safety, do not stare into the light beam of any LED at close range. On condition that the LED is used sensibly (compliance with maximum ratings acc. to the datasheet), the limits of class 1 acc. to IEC 60825-1 won't be exceeded. Therefore the LED is not within the scope of the laser protection regulation. The concrete assignment to a protection class depends on the operating instructions.

Remarks:

User shall not reverse engineer by disassembling or analysis of the LEDs without having the prior written consent of Osram OS. When defective LEDs are found, user shall inform to Osram OS directly before disassembling or analysis. The appearance and specifications of the product may be modified for improvement without notice.

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ_V [mlm]	at I _F [mA]			
3 mm LED										
	LH 3344-QT	hyper-red	645	red clear	71.0 ... 450.0	80 (typ.)	10	25	Q62703-Q2231	24
	LH 3344-R				112.0 ... 180.0	40 (typ.)			Q62703-Q3198	
	LH 3344-S				180.0 ... 280.0	70 (typ.)			Q62703-Q3199	
	LH 3344-RU				112.0 ... 710.0	130 (typ.)			Q62703-Q3200	
	LS 3341-LP	super-red	628	red clear	11.2 ... 71.0	35 (typ.)	10	40	Q62703-Q3911	25
	LS 3341-M				18.0 ... 28.0	20 (typ.)			Q62703-Q2146	
	LS 3341-N				28.0 ... 45.0	30 (typ.)			Q62703-Q2147	
	LS 3341-P				45.0 ... 71.0	50 (typ.)			Q62703-Q3445	
	LS 3341-MQ	18.0 ... 112.0	55 (typ.)	Q62703-Q2148						
	LY 3341-LP	yellow	587	yellow clear	11.2 ... 71.0	35 (typ.)	10	40	Q62703-Q2152	
	LY 3341-M				18.0 ... 28.0	20 (typ.)			Q62703-Q2151	
	LY 3341-N				28.0 ... 45.0	30 (typ.)			Q62703-Q2398	
	LY 3341-P				45.0 ... 71.0	50 (typ.)			Q62703-Q3234	
	LY 3341-MQ	18.0 ... 112.0	55 (typ.)	Q62703-Q2149						
	LG 3341-KN	green	570	green clear	7.1 ... 45.0	25 (typ.)	10	40	Q62703-Q2153	
	LG 3341-M				18.0 ... 28.0	20 (typ.)			Q62703-Q2155	
	LG 3341-N				28.0 ... 45.0	30 (typ.)			Q62703-Q3187	
	LG 3341-P				45.0 ... 71.0	50 (typ.)			Q62703-Q4772	
	LG 3341-MQ	18.0 ... 112.0	60 (typ.)	Q62703-Q2156						
	LP 3341-JM	pure green	560	green clear	4.5 ... 28.0	14 (typ.)	10	40	Q62703-Q3815	
	LP 3341-K				7.1 ... 11.2	8 (typ.)			Q62703-Q3816	
	LP 3341-L				11.2 ... 18.0	12 (typ.)			Q62703-Q2986	
	LP 3341-M				18.0 ... 28.0	20 (typ.)			Q62703-Q2919	
	LP 3341-KN	7.1 ... 45.0	22 (typ.)	Q62703-Q2750						
	LS 3340-KN	super-red	628	red clear	7.1 ... 45.0	35 (typ.)	10	50	Q62703-Q1701	
	LS 3340-L				11.2 ... 18.0	20 (typ.)			Q62703-Q1702	
	LS 3340-M				18.0 ... 28.0	30 (typ.)			Q62703-Q1704	
	LS 3340-N				28.0 ... 45.0	45 (typ.)			Q62703-Q2320	
LS 3340-LP	11.2 ... 71.0	55 (typ.)	Q62703-Q3223							
LO 3340-KN	orange	606	orange clear	7.1 ... 45.0	35 (typ.)	10	50	Q62703-Q1886		
LO 3340-L				11.2 ... 18.0	20 (typ.)			Q62703-Q2256		
LO 3340-M				18.0 ... 28.0	30 (typ.)			Q62703-Q2255		
LO 3340-N				28.0 ... 45.0	45 (typ.)			Q62703-Q2473		
LO 3340-MP	18.0 ... 71.0	60 (typ.)	Q62703-Q2628							
LY 3340-JM	yellow	587	yellow clear	4.5 ... 28.0	20 (typ.)	10	50	Q62703-Q1789		
LY 3340-L				11.2 ... 18.0	20 (typ.)			Q62703-Q1791		
LY 3340-M				18.0 ... 28.0	30 (typ.)			Q62703-Q1999		
LY 3340-N				28.0 ... 45.0	45 (typ.)			Q62703-Q2652		
LY 3340-LP	11.2 ... 71.0	55 (typ.)	Q62703-Q1792							
LG 3330-KN	green	570	colorless clear	7.1 ... 45.0	35 (typ.)	10	50	Q62703-Q1698		
LG 3330-M				18.0 ... 28.0	30 (typ.)			Q62703-Q1700		
LG 3330-N				28.0 ... 45.0	45 (typ.)			Q62703-Q2010		
LG 3330-LP				11.2 ... 71.0	55 (typ.)			Q62703-Q2011		
LP 3340-JL	pure green	560	green clear	4.5 ... 18.0	15 (typ.)	10	50	Q62703-Q2749		
LP 3340-K				7.1 ... 11.2	12 (typ.)			Q62703-Q2982		
LP 3340-L				11.2 ... 18.0	20 (typ.)			Q62703-Q2980		
LP 3340-KM				7.1 ... 28.0	24 (typ.)			Q62703-Q3211		
	LH 3364-LP	hyper-red	645	red diffused	11.2 ... 71.0	80 (typ.)	10	45	Q62703-Q3202	24
	LH 3364-M				18.0 ... 28.0	40 (typ.)			Q62703-Q3203	
	LH 3364-N				28.0 ... 45.0	70 (typ.)			Q62703-Q2798	
	LH 3364-MQ				18.0 ... 112.0	130 (typ.)			Q62703-Q3201	

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ_V [mlm]	at I _F [mA]			

3 mm LED (Forts.)

3 mm LED (cont'd)

	LR 3360-DG LR 3360-F LR 3360-G LR 3360-FJ	red	645	red diffused	0.45 ... 2.8 1.12 ... 1.8 1.80 ... 2.8 1.12 ... 7.1	6 (typ.) 5 (typ.) 8 (typ.) 14 (typ.)	10	70	Q62703-Q1316 Q62703-Q1317 Q62703-Q1318 Q62703-Q1319	27
	LS 3360-HL LS 3360-K LS 3360-L LS 3360-KN	super-red	628	red diffused	2.80 ... 18.0 7.10 ... 11.2 11.20 ... 18.0 7.10 ... 45.0	26 (typ.) 20 (typ.) 35 (typ.) 65 (typ.)	10	70	Q62703-Q1320 Q62703-Q1321 Q62703-Q1322 Q62703-Q1323	
	LO 3360-HL LO 3360-K LO 3360-L LO 3360-JM	orange	606	orange diffused	2.80 ... 18.0 7.10 ... 11.2 11.20 ... 18.0 4.50 ... 28.0	26 (typ.) 20 (typ.) 35 (typ.) 40 (typ.)	10	70	Q62703-Q1887 Q62703-Q2400 Q62703-Q2596 Q62703-Q2410	
	LY 3360-HL LY 3360-K LY 3360-L LY 3360-KN	yellow	587	yellow diffused	2.80 ... 18.0 7.10 ... 11.2 11.20 ... 18.0 7.10 ... 45.0	26 (typ.) 20 (typ.) 35 (typ.) 65 (typ.)	10	70	Q62703-Q1324 Q62703-Q1325 Q62703-Q1326 Q62703-Q1998	
	LG 3360-HL LG 3360-K LG 3360-L LG 3360-KN	green	570	green diffused	2.80 ... 18.0 7.10 ... 11.2 11.20 ... 18.0 7.10 ... 45.0	26 (typ.) 20 (typ.) 35 (typ.) 65 (typ.)	10	70	Q62703-Q3818 Q62703-Q2914 Q62703-Q3507 Q62703-Q3819	
	LP 3360-GK LP 3360-H LP 3360-J LP 3360-HL	pure green	560	green diffused	1.80 ... 11.2 2.80 ... 4.5 4.50 ... 7.1 2.80 ... 18.0	16 (typ.) 11 (typ.) 14 (typ.) 26 (typ.)	10	70	Q62703-Q2467 Q62703-Q2914 Q62703-Q2915 Q62703-Q3213	
	LS 336K-J1K1-1 LS 336K-K1L2-1	super-red	630	red diffused	4.50 ... 9.0 7.10 ... 18.0	13 (typ.) 25 (typ.)	2	60	Q65110-A0312 Q65110-A0313	
	LY 336K-J2K2-26 LY 336K-K2M1-26	yellow	587	yellow diffused	5.60 ... 11.2 9.00 ... 22.4	15 (typ.) 30 (typ.)	2	60	Q65110-A0409 Q65110-A0410	

Nicht für Neuentwicklungen / Not for new design

Hyper 3 mm LED

Hyper 3 mm LED

	LS 3336-QT LS 3336-R LS 3336-S LS 3336-T LS 3336-RU	super-red	633	colorless clear	71.0 ... 450.0 112.0 ... 180.0 180.0 ... 280.0 280.0 ... 450.0 112.0 ... 710.0	390 (typ.) 210 (typ.) 330 (typ.) 520 (typ.) 620 (typ.)	20	50	Q62703-Q3482 Q62703-Q3484 Q62703-Q3485 Q62703-Q3813 Q62703-Q3486	27
	LO 3336-RU LO 3336-S LO 3336-T LO 3336-U LO 3336-SV	orange	606	colorless clear	112.0 ... 710.0 180.0 ... 280.0 280.0 ... 450.0 450.0 ... 710.0 180.0 ... 1120.0	600 (typ.) 320 (typ.) 500 (typ.) 800 (typ.) 940 (typ.)	20	50	Q62703-Q3144 Q62703-Q3176 Q62703-Q3170 Q62703-Q3307 Q62703-Q3177	
	LY 3336-RU LY 3336-S LY 3336-T LY 3336-U LY 3336-SV	yellow	587	colorless clear	112.0 ... 710.0 180.0 ... 280.0 280.0 ... 450.0 450.0 ... 710.0 180.0 ... 1120.0	600 (typ.) 320 (typ.) 500 (typ.) 800 (typ.) 940 (typ.)	20	50	Q62703-Q3487 Q62703-Q3489 Q62703-Q3490 Q62703-Q3814 Q62703-Q3491	
	LB 3336-MQ LB 3336-M LB 3336-N LB 3336-P	blue	465	colorless clear	18.0 ... 112.0 18.0 ... 28.0 28.0 ... 45.0 45.0 ... 71.0	25 (typ.) 15 (typ.) 23 (typ.) 36 (typ.)	10	50	Q62703-Q4068 Q62703-Q3902 Q62703-Q3903 Q62703-Q3904	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

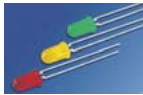
RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper 3 mm LED (Forts.)

Hyper 3 mm LED (cont'd)

	LS 3366-NR LS 3366-P LS 3366-Q LS 3366-R LS 3366-PS	super-red	633	red diffused	28.0 ... 180.0 45.0 ... 71.0 71.0 ... 112.0 112.0 ... 180.0 45.0 ... 280.0	360 (typ.) 190 (typ.) 300 (typ.) 480 (typ.) 580 (typ.)	20	70	Q62703-Q3457 Q62703-Q3458 Q62703-Q3459 Q62703-Q3460 Q62703-Q3461	27
	LA 3366-PS LA 3366-Q LA 3366-R LA 3366-S LA 3366-QT	amber	615	orange diffused	45.0 ... 280.0 71.0 ... 112.0 112.0 ... 180.0 180.0 ... 280.0 71.0 ... 450.0	540 (typ.) 280 (typ.) 450 (typ.) 720 (typ.) 840 (typ.)	20	70	Q62703-Q3881 Q62703-Q3882 Q62703-Q3883 Q62703-Q3884 Q62703-Q3885	
	LO 3366-PS LO 3366-Q LO 3366-R LO 3366-S LO 3366-QT	orange	606	orange diffused	45.0 ... 280.0 71.0 ... 112.0 112.0 ... 180.0 180.0 ... 280.0 71.0 ... 450.0	540 (typ.) 280 (typ.) 450 (typ.) 720 (typ.) 840 (typ.)	20	70	Q62703-Q3127 Q62703-Q3172 Q62703-Q3173 Q62703-Q3174 Q62703-Q3175	
	LY 3366-PS LY 3366-Q LY 3366-R LY 3366-S LY 3366-QT	yellow	587	yellow diffused	45.0 ... 280.0 71.0 ... 112.0 112.0 ... 180.0 180.0 ... 280.0 71.0 ... 450.0	540 (typ.) 280 (typ.) 450 (typ.) 720 (typ.) 840 (typ.)	20	70	Q62703-Q3462 Q62703-Q3464 Q62703-Q3465 Q62703-Q3463 Q62703-Q3466	
	LB 3356-JM LB 3356-K LB 3356-L LB 3356-M	blue	465	colorless diffused	4.5 ... 28.0 7.1 ... 11.2 11.2 ... 18.0 18.0 ... 28.0	45 (typ.) 30 (typ.) 45 (typ.) 65 (typ.)	10	70	Q62703-Q4192 Q62703-Q4336 Q62703-Q4721 Q62703-Q4722	
	LB 3333-PT-35	blue	470	colorless clear	45.0 ... 450.0	210 (typ.)	20	30	Q62703-Q4841	
	LV 3333-SAW-35	verde	505	colorless clear	180.0 ... 1800.0	840 (typ.)	20	30	Q62703-Q4916	
	LT 3333-SU-35 LT 3333-UBW-35	true green	528	colorless clear	180.0 ... 710.0 450.0 ... 2800.0	450 (typ.) 1600 (typ.)	20	30	Q62703-Q4855 Q62703-Q6352	
	LW 3333-S2T2-35 LW 3333-T2V1-35	white	x=0.32 y=0.31	colorless clear	224.0 ... 450.0 355.0 ... 900.0	390 (typ.) 630 (typ.)	20	40	Q62703-Q5704 Q62703-Q5705	

3 mm LED

3 mm LED

	LS 3380-GK LS 3380-H LS 3380-J LS 3380-K LS 3380-HL	super-red	628	red diffused	1.8 ... 11.2 2.8 ... 4.5 4.5 ... 7.1 7.1 ... 11.2 2.8 ... 18.0	35 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	100	Q62703-Q2629 Q62703-Q1726 Q62703-Q1349 Q62703-Q3824 Q62703-Q2630	27
	LY 3380-GK LY 3380-H LY 3380-J LY 3380-K LY 3380-HL	yellow	587	yellow diffused	1.8 ... 11.2 2.8 ... 4.5 4.5 ... 7.1 7.1 ... 11.2 2.8 ... 18.0	35 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	100	Q62703-Q1352 Q62703-Q1353 Q62703-Q1354 Q62703-Q2317 Q62703-Q1355	
	LG 3380-GK LG 3380-J LG 3380-K LG 3380-JL	green	570	green diffused	1.8 ... 11.2 4.5 ... 7.1 7.1 ... 11.2 4.5 ... 18.0	45 (typ.) 20 (typ.) 30 (typ.) 40 (typ.)	10	100	Q62703-Q1356 Q62703-Q2318 Q62703-Q2631 Q62703-Q3910	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2φ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ _V [mlm]	at I _F [mA]			

Hyper 3 mm LED

Hyper 3 mm LED

	LS 3386-LP	super-red	633	red diffused	11.2 ... 71.0	360 (typ.)	20	100	Q62703-Q3579	27
	LS 3386-M				18.0 ... 28.0	190 (typ.)			Q62703-Q3581	
	LS 3386-N				28.0 ... 45.0	300 (typ.)			Q62703-Q3582	
	LS 3386-P				45.0 ... 71.0	480 (typ.)			Q62703-Q3709	
	LS 3386-MQ				18.0 ... 112.0	560 (typ.)			Q62703-Q3580	
	LA 3386-MQ	amber	615	orange diffused	18.0 ... 112.0	530 (typ.)	20	100	Q62703-Q3886	
	LA 3386-N				28.0 ... 45.0	280 (typ.)			Q62703-Q3887	
	LA 3386-P				45.0 ... 71.0	450 (typ.)			Q62703-Q3888	
	LA 3386-Q				71.0 ... 112.0	700 (typ.)			Q62703-Q3889	
	LA 3386-NR				28.0 ... 180.0	840 (typ.)			Q62703-Q3890	

LC (Niedrigstrom) 3 mm LED

LC (Low Current) 3 mm LED

	LS 3369-EH	super-red	628	red diffused	0.71 ... 4.5	—	2	60	Q62703-Q1748	27
	LS 3369-G				1.80 ... 2.8	—			Q62703-Q2068	
	LS 3369-H				2.80 ... 4.5	—			Q62703-Q3820	
	LS 3369-GK				1.80 ... 11.2	—			Q62703-Q3821	
	LY 3369-EH	yellow	587	yellow diffused	0.71 ... 4.5	—	2	60	Q62703-Q1749	
	LY 3369-F				1.12 ... 1.8	—			Q62703-Q2030	
	LY 3369-G				1.80 ... 2.8	—			Q62703-Q2029	
	LY 3369-H				2.80 ... 4.5	—			Q62703-Q1906	
	LY 3369-FJ				1.12 ... 7.1	—			Q62703-Q3822	
	LG 3369-EH	green	570	green diffused	0.71 ... 4.5	—	2	60	Q62703-Q1750	
	LG 3369-F				1.12 ... 1.8	—			Q62703-Q2069	
	LG 3369-G				1.80 ... 2.8	—			Q62703-Q2070	
	LG 3369-FJ				1.12 ... 7.1	—			Q62703-Q3823	

■ Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

5 mm LED

5 mm LED

	LS 5421-NR LS 5421-Q LS 5421-R LS 5421-S LS 5421-QT	super-red	628	red clear	28 ... 180 71 ... 112 112 ... 180 180 ... 280 71 ... 450	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	20	Q62703-Q1994 Q62703-Q1442 Q62703-Q1738 Q62703-Q2405 Q62703-Q1995	30
	LO 5411-QT LO 5411-R LO 5411-S LO 5411-T LO 5411-RU	orange	606	colorless clear	71 ... 450 112 ... 180 180 ... 280 280 ... 450 112 ... 710	60 (typ.) 30 (typ.) 50 (typ.) 80 (typ.) 90 (typ.)	10	20	Q62703-Q3928 Q62703-Q3929 Q62703-Q3930 Q62703-Q3931 Q62703-Q3932	
	LY 5421-NR LY 5421-Q LY 5421-R LY 5421-S LY 5421-QT	yellow	587	yellow clear	28 ... 180 71 ... 112 112 ... 180 180 ... 280 71 ... 450	60 (typ.) 30 (typ.) 50 (typ.) 80 (typ.) 90 (typ.)	10	20	Q62703-Q1444 Q62703-Q1446 Q62703-Q2005 Q62703-Q2632 Q62703-Q1447	
	LG 5411-NR LG 5411-Q LG 5411-R LG 5411-S LG 5411-QT	green	570	colorless clear	28 ... 180 71 ... 112 112 ... 180 180 ... 280 71 ... 450	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	20	Q62703-Q2023 Q62703-Q1739 Q62703-Q1451 Q62703-Q2321 Q62703-Q2024	
	LS 5420-MQ LS 5420-P LS 5420-Q LS 5420-R LS 5420-PT	super-red	628	red clear	18 ... 112 45 ... 71 71 ... 112 112 ... 180 45 ... 450	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 90 (typ.)	10	24	Q62703-Q1428 Q62703-Q1430 Q62703-Q1993 Q62703-Q1429 Q62703-Q1431	
	LY 5420-MQ LY 5420-P LY 5420-Q LY 5420-R LY 5420-PS	yellow	587	yellow clear	18 ... 112 45 ... 71 71 ... 112 112 ... 180 45 ... 280	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	24	Q62703-Q1432 Q62703-Q1434 Q62703-Q2004 Q62703-Q3235 Q62703-Q1435	
	LG 5410-MQ LG 5410-P LG 5410-Q LG 5410-R LG 5410-PS	green	570	colorless clear	18 ... 112 45 ... 71 71 ... 112 112 ... 180 45 ... 280	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	24	Q62703-Q1439 Q62703-Q1868 Q62703-Q2020 Q62703-Q2021 Q62703-Q2022	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

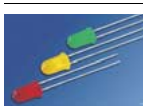
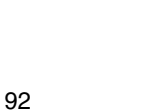
RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper 5 mm LED

Hyper 5 mm LED

	LY 5466-PR LY 5466-Q LY 5466-R LY 5466-QS	yellow	587	colored diffused	45 ... 180 71 ... 112 112 ... 180 71 ... 280	340 (typ.) 270 (typ.) 430 (typ.) 530 (typ.)	20	100	Q62703-Q3608 Q62703-Q3610 Q62703-Q3611 Q62703-Q3609	30
	LY 5415-AWCW-26 LY 5415-CWEW-26 LY 5415-AWCW-46 LY 5415-CWEW-46	yellow	587	colorless clear	1120 ... 4500 280 ... 11200 1120 ... 4500 2800 ... 11200	560 (typ.) 1120 (typ.) 560 (typ.) 1120 (typ.)	20	15	on request on request Q62703-Q6258 Q62703-Q6255	
	LA 541B-BWDW-24 LA 541D-DWEW-24	amber	617	colorless clear	1800 ... 7100 4500 ... 11200	700 (typ.) 1200 (typ.)	20	15	Q62703-Q6257 Q62703-Q6256	
	LO 541B-BWDW-1 LO 541B-DWEW-1	orange	606	colorless clear	1800 ... 7100 4500 ... 11200	700 (typ.) 1200 (typ.)	20	15	Q62703-Q6296 Q62703-Q6297	
	LY 543B-AWCW-26	yellow	587	colorless clear	1120 ... 4500	1000 (typ.)	20	26	Q65110-A0481	
	LA 543B-AWCW-1	amber	617	colorless clear	1120 ... 4500	1000 (typ.)	20	26	Q65110-A0479	
	LW 541C-AWBW-35 LW 541C-BWCW-35	white	x=0.32 y=0.31	colorless clear	1120 ... 2800 1800 ... 4500	590 (typ.) 950 (typ.)	20	20	Q62703-Q6400 Q62703-Q6401	
	LB 5416-PS	blue	465	colorless clear	45 ... 280	45 (typ.)	10	14	Q62703-Q4256	
	LS 5436-SV	super-red	633	colorless clear	180 ... 1120	—	20	40	Q62703-Q3626	
	LO 5436-TAW	orange	606	colorless clear	280 ... 1800	—	20	40	Q62703-Q3628	
	LY 5436-TAW	yellow	587	colorless clear	280 ... 1800	—	20	40	Q62703-Q3630	
	LB 5413-TV-35 LB 5413-VBW-35	blue	470	colorless clear	280 ... 1120 710 ... 2800	120 (typ.) 300 (typ.)	20	15	Q62703-Q5930 Q62703-Q5931	
	LV 5413-VBW-35 LV 5413-BWDW-35	verde	505	colorless clear	710 ... 2800 1800 ... 7100	470 (typ.) 1200 (typ.)	20	15	Q62703-Q5932 Q62703-Q5933	
	LT 5413-VBW-35 LT 5413-BWDW-35	true green	528	colorless clear	710 ... 2800 1800 ... 7100	470 (typ.) 1200 (typ.)	20	15	Q62703-Q5934 Q62703-Q5935	
	LB 5433-QU-35	blue	470	colorless clear	71 ... 710	210 (typ.)	20	40	Q62703-Q4843	
	LV 5433-TBW-35	verde	505	colorless clear	280 ... 2800	750 (typ.)	20	40	Q62703-Q4850	
	LT 5433-TBW-35	true green	528	colorless clear	280 ... 2800	750 (typ.)	20	40	Q62703-Q4857	
	LB 543C-UV LB 543C-VBW	blue	470	colorless clear	450 ... 1120 710 ... 2800	160 (typ.) 320 (typ.)	20	26	Q65110-A0116 Q65110-A0080	
	LB 5456-JL	blue	465	colorless diffused	4.5 ... 18.0	35 (typ.)	10	50	Q62703-Q4244	

■ Nicht für Neuentwicklungen / Not for new design

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ_V [mlm]	at I _F [mA]			

5 mm LED

5 mm LED

	LR 5360-DG LR 5360-F LR 5360-G LR 5360-FJ	red	645	red diffused	0.45 ... 2.80 1.12 ... 1.80 1.80 ... 2.80 1.12 ... 7.10	4 (typ.) 3 (typ.) 5 (typ.) 6 (typ.)	10	50	Q62703-Q1376 Q62703-Q1377 Q62703-Q1378 Q62703-Q1379	31
	LS 5360-HL LS 5360-J LS 5360-K LS 5360-L LS 5360-JM	super-red	628	red diffused	2.80 ... 18.00 4.50 ... 7.10 7.10 ... 11.20 11.20 ... 18.00 4.50 ... 28.00	35 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	50	Q62703-Q1380 Q62703-Q1744 Q62703-Q1381 Q62703-Q1382 Q62703-Q3224	
	LY 5360-HL LY 5360-J LY 5360-K LY 5360-L LY 5360-JM	yellow	587	yellow diffused	2.80 ... 18.00 4.50 ... 7.10 7.10 ... 11.20 11.20 ... 18.00 4.50 ... 28.00	35 (typ.) 20 (typ.) 30 (typ.) 50 (typ.) 60 (typ.)	10	50	Q62703-Q2000 Q62703-Q1386 Q62703-Q2001 Q62703-Q2404 Q62703-Q1387	
	LG 5360-GK LG 5360-H LG 5360-J LG 5360-K LG 5360-HL	green	570	green diffused	1.80 ... 11.20 2.80 ... 4.50 4.50 ... 7.10 7.10 ... 11.20 2.80 ... 18.00	20 (typ.) 12 (typ.) 20 (typ.) 30 (typ.) 50 (typ.)	10	50	Q62703-Q1391 Q62703-Q1390 Q62703-Q1866 Q62703-Q2012 Q62703-Q3188	
	LH 5464-MQ LH 5464-N LH 5464-P LH 5464-Q LH 5464-NR	hyper-red	645	red diffused	18.00 ... 112.00 28.00 ... 45.00 45.00 ... 71.00 71.00 ... 112.00 28.00 ... 180.00	55 (typ.) 30 (typ.) 50 (typ.) 80 (typ.) 90 (typ.)	10	35	Q62703-Q3829 Q62703-Q3830 Q62703-Q2753 Q62703-Q3831 Q62703-Q3832	
	LR 5460-DG LR 5460-F LR 5460-G LR 5460-FJ	red	645	red diffused	0.45 ... 2.80 1.12 ... 1.80 1.80 ... 2.80 1.12 ... 7.10	4 (typ.) 3 (typ.) 5 (typ.) 6 (typ.)	10	50	Q62703-Q1392 Q62703-Q1393 Q62703-Q1394 Q62703-Q1395	
	LS 5460-HL LS 5460-J LS 5460-K LS 5460-L LS 5460-JM	super-red	628	red diffused	2.80 ... 18.00 4.50 ... 7.10 7.10 ... 11.20 11.20 ... 18.00 4.50 ... 28.00	35 (typ.) 20 (typ.) 30 (typ.) 45 (typ.) 60 (typ.)	10	50	Q62703-Q1396 Q62703-Q1746 Q62703-Q1397 Q62703-Q1398 Q62703-Q3225	
	LY 5460-HL LY 5460-J LY 5460-K LY 5460-L LY 5460-JM	yellow	587	yellow diffused	2.80 ... 18.00 4.50 ... 7.10 7.10 ... 11.20 11.20 ... 18.00 4.50 ... 28.00	35 (typ.) 20 (typ.) 30 (typ.) 45 (typ.) 60 (typ.)	10	50	Q62703-Q1400 Q62703-Q1401 Q62703-Q1402 Q62703-Q2403 Q62703-Q1403	
	LG 5460-GK LG 5460-J LG 5460-K LG 5460-HL	green	570	green diffused	1.80 ... 11.20 4.50 ... 7.10 7.10 ... 11.20 2.80 ... 18.00	20 (typ.) 20 (typ.) 30 (typ.) 50 (typ.)	10	50	Q62703-Q1407 Q62703-Q1867 Q62703-Q2014 Q62703-Q3190	
	LR 5480-CF LR 5480-E LR 5480-F LR 5480-DG	red	645	red diffused	0.28 ... 1.80 0.71 ... 1.12 1.12 ... 1.80 0.45 ... 2.80	4 (typ.) 3 (typ.) 5 (typ.) 6 (typ.)	10	80	Q62703-Q1986 Q62703-Q1734 Q62703-Q1987 Q62703-Q1408	
	LS 5380-FJ LS 5380-G LS 5380-H LS 5380-J LS 5380-HL	super-red	628	red diffused	1.12 ... 7.1 1.80 ... 2.8 2.80 ... 4.5 4.50 ... 7.1 2.80 ... 18.0	22 (typ.) 12 (typ.) 20 (typ.) 30 (typ.) 55 (typ.)	10	140	Q62703-Q1452 Q62703-Q1740 Q62703-Q1453 Q62703-Q1454 Q62703-Q1455	
	LY 5380-GK LY 5380-H LY 5380-J LY 5380-HL	yellow	587	yellow diffused	1.80 ... 11.20 2.80 ... 4.50 4.50 ... 7.10 2.80 ... 18.00	35 (typ.) 18 (typ.) 30 (typ.) 55 (typ.)	10	140	Q62703-Q2002 Q62703-Q1457 Q62703-Q2319 Q62703-Q2003	
	LG 5380-GK LG 5380-H LG 5380-J LG 5380-K LG 5380-HL	green	570	green diffused	1.80 ... 11.20 2.80 ... 4.50 4.50 ... 7.10 7.10 ... 11.20 2.80 ... 18.00	35 (typ.) 18 (typ.) 30 (typ.) 45 (typ.) 55 (typ.)	10	140	Q62703-Q1463 Q62703-Q2032 Q62703-Q2016 Q62703-Q3189 Q62703-Q3825	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

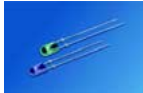
RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I _V) [deg].	Bestellnummer Ordering code	Fig.
					I _V [mcd]	Φ_V [mlm]	at I _F [mA]			

Oval LEDs

Oval LEDs

	LA 028B-T1U1-34 LA 028B-U1V2-34 LA 038B-T1U1-34 LA 038B-U1V2-34	amber	617	colored diffused	280 ... 560 450 ... 1120 280 ... 560 450 ... 1120	630 (typ.) 1170 (typ.) 630 (typ.) 1170 (typ.)	20	120H 60V	on request on request on request on request	30
	LB 028C-Q1R1-35 LB 028C-R1S2-35	blue	470	colored diffused	71 ... 140 112 ... 280	160 (typ.) 320 (typ.)	20	120H 60V	on request on request	
	LT 038C-T2U2-35 LT 038C-U2AA-35	true green	528	colored diffused	355 ... 710 560 ... 1400	690 (typ.) 1200 (typ.)	20	120H 60V	on request Q65110-A0442	
	LY 0285-S2T2-46 LY 0285-S2T2-46 LY 0385-S2T2-46 LY 0385-T2V1-46	yellow	587	colored diffused	224 ... 450 355 ... 900 224 ... 450 355 ... 900	500 (typ.) 950 (typ.) 630 (typ.) 950 (typ.)	20	120H 60V	Q65110-A0266 Q65110-A0263 on request on request	

Lc 5 mm Led (Niedrigstrom)

Lc 5 mm Led (Low Current)

	LS 5469-EH LS 5469-G LS 5469-H LS 5469-GK	super-red	628	red diffused	0.71 ... 4.5 1.80 ... 2.8 2.80 ... 4.5 1.80 ... 11.2	8 (typ.) 7 (typ.) 11 (typ.) 20 (typ.)	2	50	Q62703-Q1751 Q62703-Q2344 Q62703-Q2345 Q62703-Q3833	30
	LY 5469-EH LY 5469-F LY 5469-G LY 5469-H LY 5469-FJ	yellow	587	yellow diffused	0.71 ... 4.5 1.12 ... 1.8 1.80 ... 2.8 2.80 ... 4.5 1.12 ... 7.1	8 (typ.) 5 (typ.) 7 (typ.) 11 (typ.) 13 (typ.)	2	50	Q62703-Q1752 Q62703-Q3834 Q62703-Q3835 Q62703-Q3836 Q62703-Q3837	
	LG 5469-EH LG 5469-F LG 5469-G LG 5469-FJ	green	570	green diffused	0.71 ... 4.5 1.12 ... 1.8 1.80 ... 2.8 1.12 ... 7.1	8 (typ.) 5 (typ.) 7 (typ.) 13 (typ.)	2	50	Q62703-Q1753 Q62703-Q3856 Q62703-Q3857 Q62703-Q3858	

Nicht Für Neuentwicklungen / Not For New Design

5 mm MULTILED (2.54 mm Raster)

5 mm MULTILED (2.54 mm Spacing)

	LU 5351-GL	super-red/ green	628/ 570	colorless diffused	1.8 ... 18.0	—	10	50	Q62703-Q2046	36
	LU 5351-JM	super-red/ green	628/ 570	colorless diffused	4.5 ... 28.0	—	10	50	Q62703-Q2047	

Nicht Für Neuentwicklungen / Not For New Design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I_V) [deg.]	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

ARGUS® LED

ARGUS® LED

	LS K380-LP	super-red	628	red clear	–	11.2 ... 71.0	15	–	Q62703-Q1768	33
	LS K380-N				–	28.0 ... 45.0		–	Q62703-Q0760	
	LS K380-P				–	45.0 ... 71.0		–	Q62703-Q1003	
	LS K380-Q				–	71.0 ... 112.0		–	Q62703-Q1004	
	LS K380-NR				–	28.0 ... 180.0		–	Q62703-Q2223	
	LO K380-LP	orange	606	orange clear	–	11.2 ... 71.0	15	–	Q62703-Q1888	
	LO K380-N				–	28.0 ... 45.0		–	Q62703-Q2227	
	LO K380-P				–	45.0 ... 71.0		–	Q62703-Q2228	
	LO K380-Q				–	71.0 ... 112.0		–	Q62703-Q2229	
	LO K380-NR				–	28.0 ... 180.0		–	Q62703-Q2201	
	LY K380-LP	yellow	587	yellow clear	–	11.2 ... 71.0	15	–	Q62703-Q1769	
	LY K380-N				–	28.0 ... 45.0		–	Q62703-Q0575	
	LY K380-P				–	45.0 ... 71.0		–	Q62703-Q0576	
	LY K380-Q				–	71.0 ... 112.0		–	Q62703-Q3844	
	LY K380-NR				–	28.0 ... 180.0		–	Q62703-Q2224	
	LG K380-LP	green	570	green clear	–	11.2 ... 71.0	15	–	Q62703-Q1770	
	LG K380-N				–	28.0 ... 45.0		–	Q62703-Q0759	
	LG K380-P				–	45.0 ... 71.0		–	Q62703-Q1034	
	LG K380-Q				–	71.0 ... 112.0		–	Q62703-Q3193	
	LG K380-NR				–	28.0 ... 180.0		–	Q62703-Q2225	
	LP K380-KN	pure green	560	colorless clear	–	7.1 ... 45.0	15	–	Q62703-Q2506	
	LP K380-L				–	11.2 ... 18.0		–	Q62703-Q3215	
	LP K380-M				–	18.0 ... 28.0		–	Q62703-Q2610	
	LP K380-N				–	28.0 ... 45.0		–	Q62703-Q2605	
	LP K380-LP				–	11.2 ... 71.0		–	Q62703-Q3217	

Super ARGUS® LED

Super ARGUS® LED

	LP K382-NR	pure green	560	colorless clear	–	28 ... 180	50	–	Q62703-Q2646	33
	LP K382-P				–	45 ... 71			Q62703-Q2339	
	LP K382-Q				–	71 ... 112			Q62703-Q2338	
	LP K382-R				–	112 ... 180			Q62703-Q2337	
	LP K380-N				–	45 ... 280			Q62703-Q2123	
	LP K382-PS				–					

■ Nicht Für Neuentwicklungen / Not For New Design

LC ARGUS® LED (Niedrigstrom)

LC ARGUS® LED (Low Current)

	LS K389-FJ	super-red	628	red clear	–	1.2 ... 7.2	2	–	Q62703-Q1771	33
	LG K389-FJ	green	570	green clear	–	1.2 ... 7.2	2	–	Q62703-Q1773	

■ Nicht Für Neuentwicklungen / Not For New Design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

RADIALE LED

RADIAL LED

Package	Type	Emissionsfarbe Emission color	λ_{dom} (typ.) [nm]	Gehäusefarbe Emission Color				2 ϕ (typ.) (50% I_V) [deg].	Bestellnummer Ordering code	Fig.
					I_V [mcd]	Φ_V [mlm]	at I_F [mA]			

Hyper ARGUS® 3 mm LED

Hyper ARGUS® 3 mm LED

	LH K376-QS	hyper-red	645	colorless clear	—	71.0 ... 280.0	20	—	Q62703-Q3492	
	LH K376-R				—	112.0 ... 180.0			Q62703-Q3304	
	LH K376-S				—	180.0 ... 280.0			Q62703-Q3305	
	LH K376-RT				—	112.0 ... 450.0			Q62703-Q3493	
	LS K376-QT	super-red	633	colorless clear	—	71.0 ... 450.0	20	—	Q62703-Q3467	
	LS K376-R				—	112.0 ... 180.0			Q62703-Q3468	
	LS K376-S				—	180.0 ... 280.0			Q62703-Q3469	
	LS K376-T				—	280.0 ... 450.0			Q62703-Q3470	
	LS K376-RU				—	112.0 ... 710.0			Q62703-Q3471	
	LO K376-RU	orange	606	colorless clear	—	112.0 ... 710.0	20	—	Q62703-Q3472	33
	LO K376-S				—	180.0 ... 280.0			Q62703-Q3473	
	LO K376-T				—	280.0 ... 450.0			Q62703-Q3474	
	LO K376-U				—	450.0 ... 710.0			Q62703-Q3475	
	LO K376-SV				—	180.0 ... 1120.0			Q62703-Q3476	
	LY K376-RU	yellow	587	colorless clear	—	112.0 ... 710.0	20	—	Q62703-Q3477	
	LY K376-S				—	180.0 ... 280.0			Q62703-Q3478	
	LY K376-T				—	280.0 ... 450.0			Q62703-Q3479	
	LY K376-U				—	450.0 ... 710.0			Q62703-Q3480	
	LY K376-SV				—	180.0 ... 1120.0			Q62703-Q3481	
	LB K376-LP	blue	465	colorless clear	—	11.2 ... 71.0	10	—	Q62703-Q3796	

Nicht für Neuentwicklungen / Not for new design

Zeilen LED 2 mm Ø

Array LED 2 mm Dia

	LR Z181-CF LR Z182-CF LR Z183-CF LR Z184-CF LR Z185-CF LR Z186-CF LR Z187-CF LR Z188-CF	red	645	red diffused	0.25 ... 1.80	—	10	100	Q62703-Q1495 Q62703-Q1496 Q62703-Q1497 Q62703-Q1498 Q62703-Q1499 Q62703-Q1500 Q62703-Q1501 Q62703-Q1502	34
	LY Z181-CF	yellow	587	yellow diffused	0.25 ... 1.80	—	10	100	Q62703-Q1505	
	LG Z181-CF LG Z182-CF LG Z183-CF LG Z184-CF LG Z185-CF LG Z186-CF LG Z188-CF	green	570	green diffused	0.25 ... 1.80	—	10	100	Q62703-Q1506 Q62703-Q1507 Q62703-Q1508 Q62703-Q1509 Q62703-Q1510 Q62703-Q1511 Q62703-Q1513	

Nicht für Neuentwicklungen / Not for new design

Mini LED 1 mm Ø

Miniature LED 1 mm Dia

	LS U260-EH	super-red	628	red diffused	0.71 ... 4.50	–	10	60	Q62703-Q1492	35
	LY U260-EH-1	yellow	587	yellow diffused	0.71 ... 4.50	–	10	60	Q62703-Q1493	
	LG U260-EH-1	green	570	colorless diffused	0.71 ... 4.50	–	10	60	Q62703-Q1494	

Nicht für Neuentwicklungen / Not for new design

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

Lötbedingungen für LED

Beim Einlöten ist darauf zu achten, dass das Bauelement thermisch nicht überlastet wird. Die maximale Sperrschichttemperatur darf nur kurzzeitig (max. 1 min) überschritten werden.

Zulässige Lötverfahren und Vorbehandlung siehe Tabelle:

Soldering conditions for LEDs

When soldering the component into position, make sure that it is not thermally overloaded. The maximum junction temperature may only be exceeded briefly (for no more than 1 min.).

Permissible soldering methods and preconditioning are:

Package	IR Reflow Soldering	TTW Soldering ¹⁾	Preconditioning acc. to Jedec Level
5mm (T1 3/4) LED	—	X	n.a.
3mm (T1) LED	—	X	n.a.
Golden Dragon	X	—	4
Mini TOPLED	X	X	2
TOPLED	X	X	2
SIDELED	X	X	2
6-lead TOPLED	X	X	2
Multi TOPLED	X	X	2
Multi SIDELED	X	—	2
CHIPLED	X	—	2
Power TOPLED	X	X	2
ARGUS®	—	X	n.a.
SmartLED	X	X	2
Micro SIDELED	X	X	2

¹⁾ ausgenommen reverse gullwing Gehäuse
except reverse gullwing packages

Lösungsmittel zum Reinigen von eingelöteten LED

Zum Reinigen der eingelöteten LED sind organische Lösungsmittel geeignet, die aus Alkoholen oder bestimmten Fluorkohlenwasserstoffen oder aus einer Mischung von beiden Gruppen bestehen. Keinesfalls sollte man Lösungsmittel oder Lösungsmittelgemische verwenden, die chlorierte Kohlenwasserstoffe oder Ketone enthalten. Lösungsmittel dieser Art können den Verguss angreifen oder auflösen.

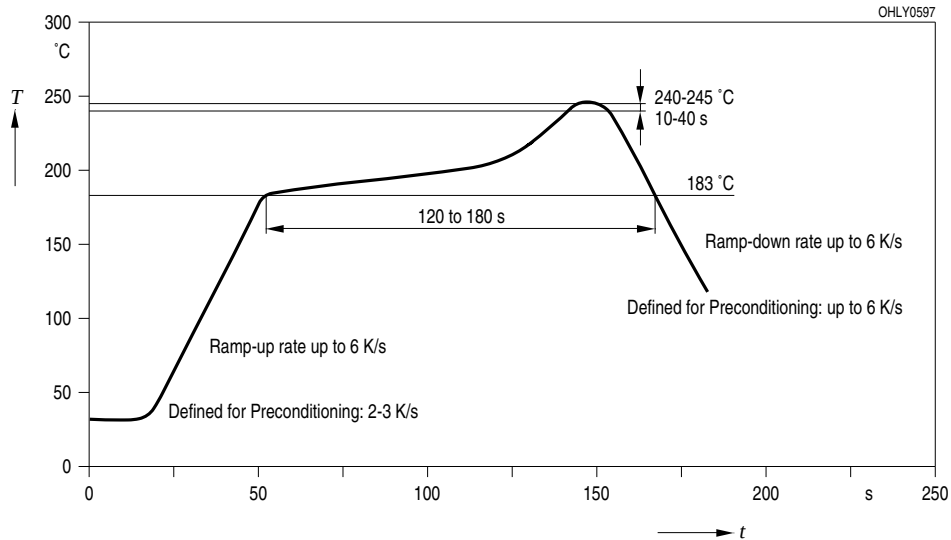
Lötpaddesignvorschläge finden Sie in den Datenblättern unter www.osram-os.com

Cleaning solvents for soldered-in LEDs

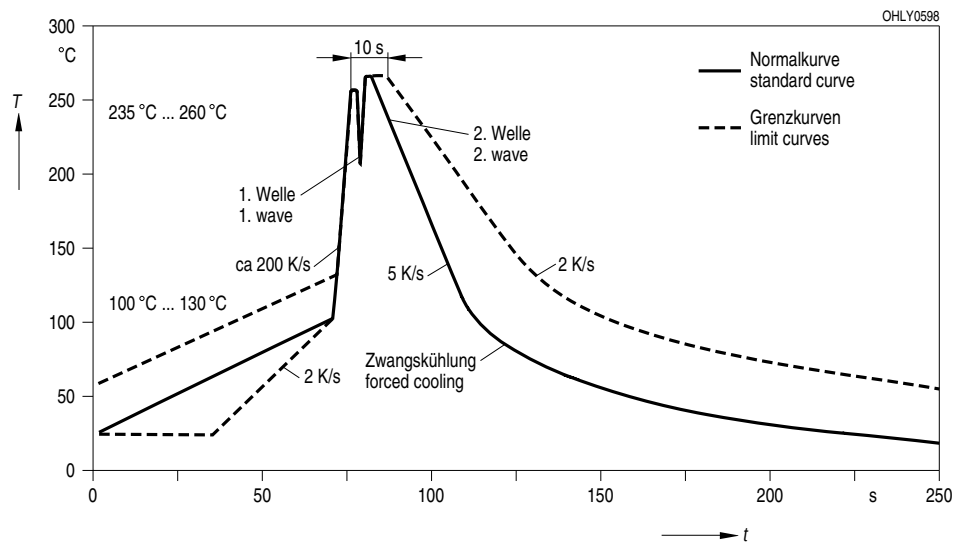
Organic solvents consisting of alcohols or hydrocarbon-fluorides or a mixture of both groups are suitable for cleaning soldered-in LEDs. In no way should solvents or solvent mixtures be used which contain chlorinated hydrocarbons or ketones. This type of solvents may attack or corrode the display housing or casing.

Recommended solder pads you can find in the related datasheet on www.osram-os.com

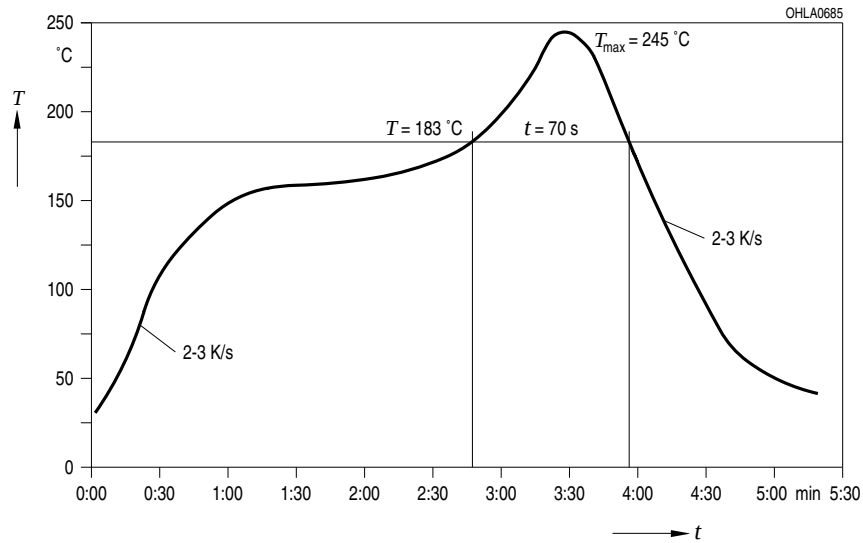
IR-reflow-soldering-profile acc. to IPC 9501 (except CHIPLED)



Wave soldering (dual wave) soldering profile acc. to CECC 00802



IR-reflow-soldering-profile acc. to IPC 9501 for CHIPLED package



LUMINESZENZDIODEN
LIGHT EMITTING DIODES
Grenzwerte
Absolute maximum ratings

		Betriebstemperatur/ Operating temperature	Lagertemperatur/ Storage temperature	Sperschichttemperatur/ Junction temperature	Stoßstrom Surge current ($T_A = 25\text{ °C}/t_p < 10\text{ }\mu\text{s}$)	Sperrspannung Reverse voltage ($T_A = 25\text{ °C}$)	Durchlaßstrom Forward current ($T_A = 25\text{ °C}$)	Verlustleistung Power dissipation ($T_A = 25\text{ °C}$)	Wärmewiderstand Sperrschicht/Luft Thermal resistance Junction/Air
	Color*	T_{op} °C	T_{stg} °C	T_j °C	I_{FM} A	V_R V	I_F mA	P_{tot} mW	R_{thJA} K/W
TOPLED™	S, O, Y, G	-40 ... +100		+100	0.5	5	30	100	400
	P	-40 ... +100		+100	0.5	5	30	100	
	H	-40 ... +100		+100	0.5	3	30	90	
Super TOPLED	G	-40 ... +100		+100	1	5	50	190	300
	P	-40 ... +100		+100	1	5	50	190	
Hyper TOPLED	S, A, O	-40 ... +100		+125	1	3	30	80	500
	Y	-40 ... +100		+125	0.2	3	30	55	500
	B	-40 ... +100		+100	–	5	20	100	500
Power TOPLED	A	-40 ... +100		+125	–	3	70	130	300
	Y	-40 ... +100		+125	–	3	50	130	300
Low-current TOPLED	S, Y, G	-40 ... +100		+100	0.15	5	7.5	20	500
SIDELED	H	-40 ... +100		+100	0.5	3	30	90	430
	S, O, Y, G, P	-40 ... +100		+100	0.5	5	30	100	430
Super SIDELED	G, P	-40 ... +100		+100	1	5	50	190	330
Hyper SIDELED	S, A, O	-40 ... +100		+100	1	3	30	80	530
	Y	-40 ... +100		+100	0.2	3	20	55	530
	B	-40 ... +100		+100	–	5	20	100	530
Low-current SIDELED	S, Y, G	-40 ... +100		+100	0.15	5	7.5	20	430
Mini SIDELED	S, O, Y, G, P	-40 ... +100		+100	0.5	5	30	100	530
Micro SIDELED	S, A, O, Y	-40 ... +100		125	–	3	30	80	630
	T	-40 ... +100		125	–	5	15	60	530
	W	-40 ... +100		110	–	5	20	90	600
	G	-40 ... +100		100	–	5	30	80	500
	G	-40 ... +100		100	–	5	30	95	530
	B	-40 ... +100		100	–	5	20	90	630
	W, B	-40 ... +100		110	–	5	15	60	530
Hyper Mini SIDELED	S, A, O	-40 ... +100		+125	0.8	3	30	80	630
	Y	-40 ... +100		+125	0.2	3	20	55	630
	B	-40 ... +100		+100	–	5	20	100	630
Mini TOPLED	S, O, Y, G, P	-40 ... +100		+100	0.5	5	30	100	480
Hyper Mini TOPLED	S, A, O	-40 ... +100		+125	0.8	3	30	80	580
	Y	-40 ... +100		+125	0.2	3	20	55	580
	B	-40 ... +100		+100	–	5	20	100	580

LUMINESZENZDIODEN
LIGHT EMITTING DIODES

		Betriebstemperatur/ Operating temperature	Lagertemperatur/ Storage temperature	Sperrschichttemperatur/ Junction temperature	Stoßstrom Surge current ($T_A = 25\text{ }^{\circ}\text{C}/t_p < 10\text{ }\mu\text{s}$)	Sperrspannung Reverse voltage ($T_A = 25\text{ }^{\circ}\text{C}$)	Durchlaßstrom Forward current ($T_A = 25\text{ }^{\circ}\text{C}$)	Verlustleistung Power dissipation ($T_A = 25\text{ }^{\circ}\text{C}$)	Wärmewiderstand Sperrschicht/Luft Thermal resistance Junction/Air
	Color*	T_{op} $^{\circ}\text{C}$	T_{stg} $^{\circ}\text{C}$	T_j $^{\circ}\text{C}$	I_{FM} A	V_R V	I_F mA	P_{tot} mW	R_{thJA} K/W
SmartLED™	G	-40 ... +100		+110	–	5	20	95	500
	B, T	-40 ... +100		+100	–	5	15	60	450
	B, T	-40 ... +100		+100	–	5	20	85	450
	S, A	-40 ... +100		+110	–	5	60	170	500
	Y, O	-40 ... +100		+110	–	5	30	80	500
CHIPLED 0603	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
CHIPLED 0805	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
CHIPLED 1206	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
Hyper CHIPLED 0603	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
Hyper CHIPLED 0805	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
Multi CHIPLED	–	-30 ... +85	-40 ... +85	+95	–	5	25	70	–
Hyper LED (3 + 5 mm)	S, A, O	-55 ... +100		+100	1	3	30	80	500
	Y	-55 ... +100		+100	0.2	3	20	55	500
	B	-40 ... +100		+100	–	5	20	100	500
LED (3 + 5 mm) ARGUS®	R	-55 ... +100		+100	0.5	25	45	100	400
	S, O, Y, G	-55 ... +100		+100	0.5	25	40 ¹⁾	140	
	P	-55 ... +100		+100	0.5	5	30 ¹⁾	100	
	H	-55 ... +100		+100	0.5	3	40	120	
Super ARGUS®	S, O, Y, G	-55 ... +100		+100	1	25	75	240	250
	P	-55 ... +100		+100	1	5	75	240	
Hyper ARGUS®	S, A, O	-55 ... +100		+100	1	3	30	80	500
	Y	-55 ... +100		+100	0.2	3	20	55	500
	H	-55 ... +100		+100	0.5	3	50	130	500
	B	-40 ... +100		+100	–	5	20	100	500
Low-current LED Low-current ARGUS®	S, Y, G	-55 ... +100		+100	0.15	25	7.5	20	500
Mini-LED	S, Y, G	-40 ... +80		+100	0.35	25	15	50	1100
Super ARGUS®	S, O, Y, G	-55 ... +100		+100	1	25	75	240	250
ARRAY LED	R, Y, G	-40 ... +80		+100	0.5	25	30	90	750

* R ≡ rot, H ≡ Hyper-rot, S ≡ Super-rot, O ≡ Orange, Y ≡ Gelb, G ≡ Grün, P ≡ Pure green, B ≡ Blau

* R ≡ red, H ≡ hyper-red, S ≡ super-red, O ≡ orange, Y ≡ yellow, G ≡ green, P ≡ pure green, B ≡ blue

¹⁾ Gilt nicht für Zweifarben-LED mit antiparallel geschalteten Systemen

¹⁾ Not valid for two-color LED with antiparallel dies

Diese Daten gelten nicht für RL 50, 54, 55, YL 56, GL 56.

These data do not apply to RL 50, 54, 55, YL 56, GL 56.

Für Details siehe Datenblatt.

For details see data sheet.

LUMINESZENZDIODEN

LIGHT EMITTING DIODES

Kenndaten ($T_A = 25\text{ °C}$)

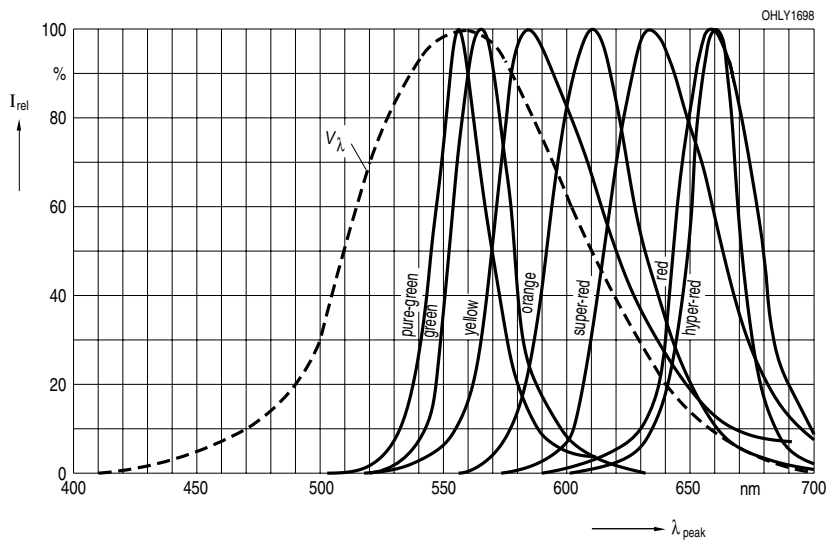
Typical values ($T_A = 25\text{ °C}$)

Standard-current-LED			red	hyper-red	super-red	orange	yellow	green	pure green	
Wellenlänge des emittierten Lichts/ Wavelength at peak emission	$I_F = 10\text{ mA}$	λ_{peak}	660	660	635	610	586	572	557	nm
Dominantwellenlänge/ Dominant wavelength	$I_F = 10\text{ mA}$	λ_{dom}	645	645	628	605	587	570	560	nm
Durchlassspannung/ Forward voltage	$I_F = 10\text{ mA}$	V_F	1.6 (≤ 2.0)	1.75 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	V

Low-current LED			super-red	orange	yellow	green	
Wellenlänge des emittierten Lichts/Wavelength at peak emission	$I_F = 7.5\text{ mA}$	λ_{peak}	635/643	610	591	572	nm
Dominantwellenlänge/Dominant wavelength	$I_F = 7.5\text{ mA}$	λ_{dom}	628/630	606	587	570	nm
Durchlassspannung/Forward voltage	$I_F = 2\text{ mA}$	V_F	1.8 (≤ 2.6)	1.8 (≤ 2.2)	2.0 (≤ 2.7)	1.9 (≤ 2.6)	V

High-current LED			super-red	orange	yellow	green	pure green	
Wellenlänge des emittierten Lichts/Wavelength at peak emission	$I_F = 20\text{ mA}$	λ_{peak}	635	610	586	565	557	nm
Dominantwellenlänge/Dominant wavelength	$I_F = 20\text{ mA}$	λ_{dom}	628	605	587	570	560	nm
Durchlassspannung/Forward voltage	$I_F = 50\text{ mA}$	V_F	2.0 (≤ 3.8)	2.4 (≤ 3.8)	2.4 (≤ 3.8)	2.6 (≤ 3.8)	2.6 (≤ 3.8)	V

Standard-current LED, Low-current LED, High-current LED



LUMINESZENZDIODEN

LIGHT EMITTING DIODES

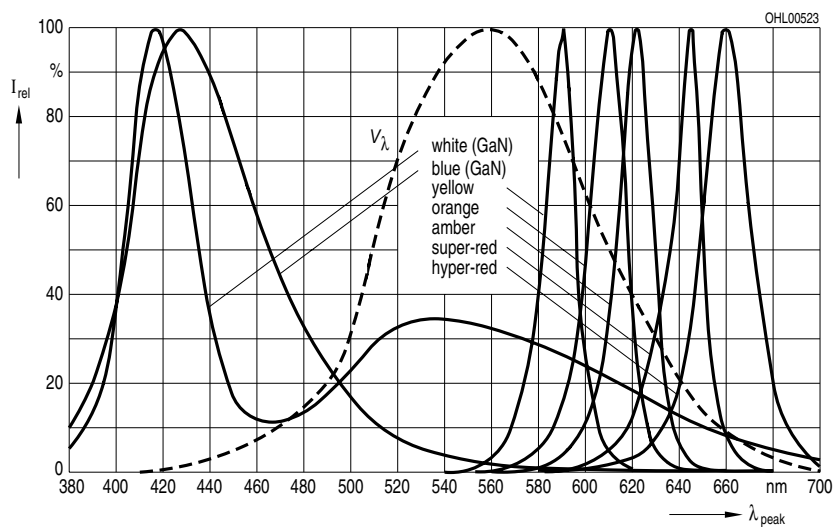
Kenndaten ($T_A = 25\text{ °C}$)

Typical values ($T_A = 25\text{ °C}$)

Hyper-Bright-LED		hyper-red	super-red	amber	orange	yellow	blue	
Wellenlänge des emittierten Lichts/ Wavelength at peak emission $I_F = 20\text{ mA}$	λ_{peak}	660	645	622	610	586	428	nm
Dominantwellenlänge/ Dominant wavelength $I_F = 20\text{ mA}$	λ_{dom}	645	633	615	606	587	465	nm
Durchlassspannung/ Forward voltage $I_F = 20\text{ mA}$	V_F	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	3.5 ¹⁾ (≤ 4.2)	V

¹⁾ $I_F = 10\text{ mA}$

Hyper-Bright LED



LUMINESZENZDIODEN

LIGHT EMITTING DIODES

Kenndaten ($T_A = 25\text{ °C}$)

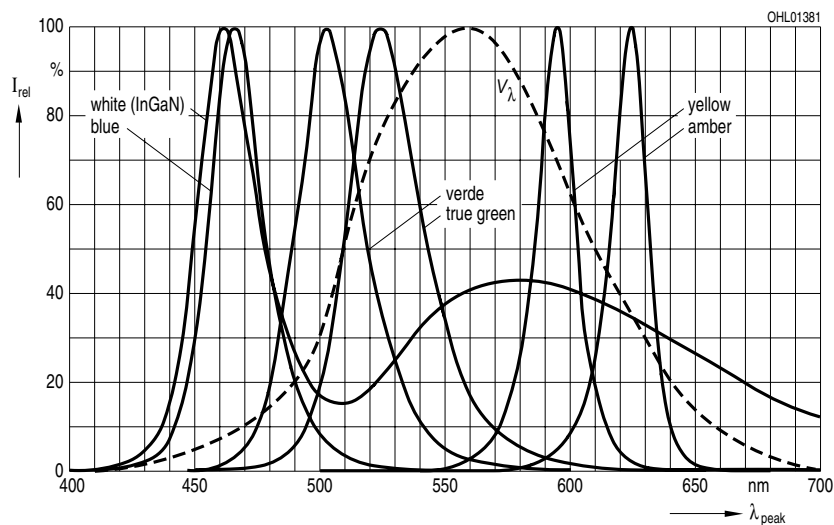
Typical values ($T_A = 25\text{ °C}$)

Single Chip White LED		LW T676 (GaN) $I_F = 10\text{ mA}$	LW T673 (InGaN) $I_F = 20\text{ mA}$	
Farbort des emittierten Lichts/ Color coordinate at peak emission		$x = 0.30$ $y = 0.32$	$x = 0.32$ $y = 0.31$	
Durchlassspannung/ Forward voltage	V_F	4.5	4.3	V

Standard-InGaN LED		blue	verde	true green	
Wellenlänge des emittierten Lichts/ Wavelength at peak emission $I_F = 20\text{ mA}$	λ_{peak}	465	503	523	nm
Dominantwellenlänge/ Dominant wavelength $I_F = 20\text{ mA}$	λ_{dom}	470	505	528	nm
Durchlassspannung/ Forward voltage $I_F = 20\text{ mA}$	V_F	3.5	3.3	3.3	V

HOP (High Optical Power)		amber	yellow	
Wellenlänge des emittierten Lichts/ Wavelength at peak emission $I_F = 50\text{ mA}$	λ_{peak}	624	594	nm
Dominantwellenlänge/ Dominant wavelength $I_F = 50\text{ mA}$	λ_{dom}	617	587	nm
Durchlassspannung/ Forward voltage $I_F = 50\text{ mA}$	V_F	2.0	1.9	V

Single Chip White LED, Standard-InGaN LED, HOP LED



Maßbilder in mm (inch)

Outline Drawings dimensions in mm (inch)

Figure 1 L* T670, LG T671, L* T672, L* T673, LH T674, L* T675, L* T676, L* T679, L* T685, L* T686, L* T67C, L* T68C, L* T67K

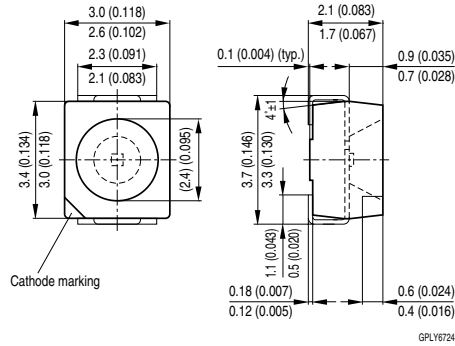


Figure 2 LH T774, L* T770, L* T77K, L* T776, L* T773

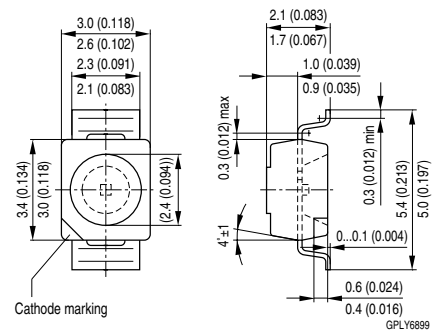


Figure 3 L* E676, L* E675, L* E673, L* E675, L* E67C, L* E67B

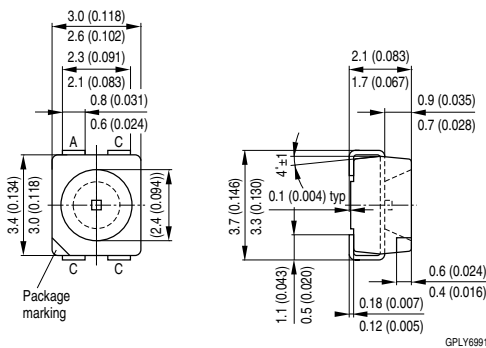


Figure 4 L* E655, L* E65B, L* E63C

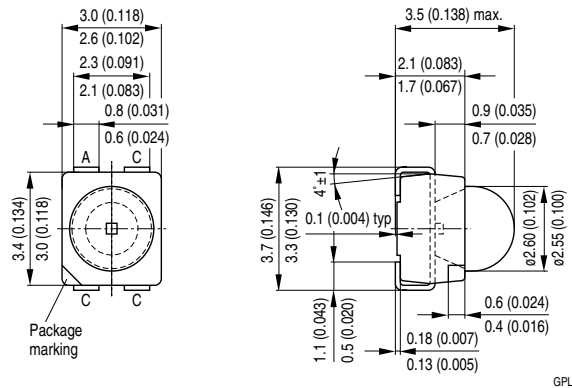


Figure 5 L* M670, L* M676, L* M673,

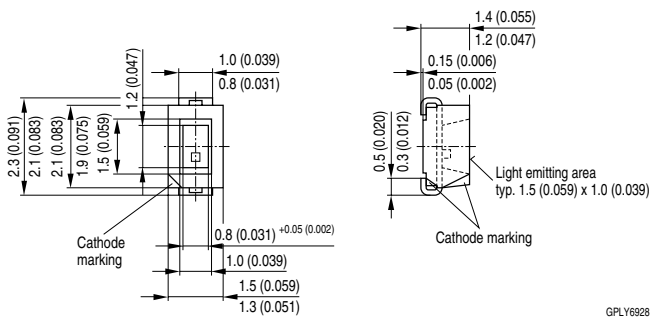
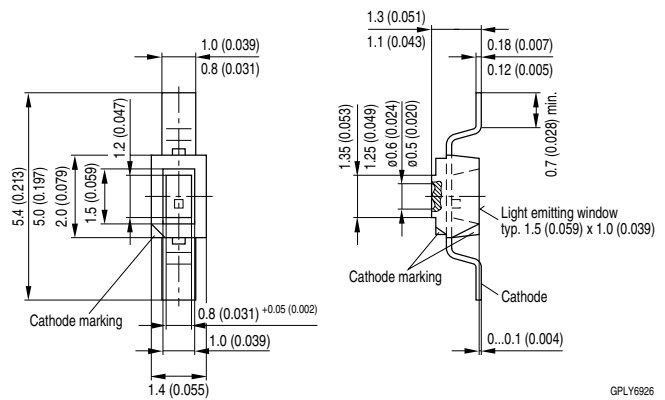


Figure 6 L* M770, L* M776, L* M779



Maßbilder in mm (inch)

Outline Drawings dimensions in mm (inch)

Figure 7 LG M470, L* M476, L* M47K

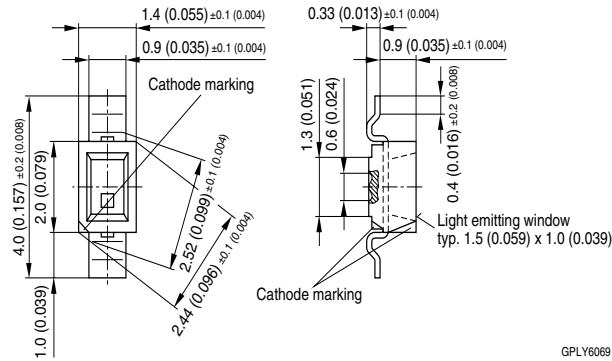


Figure 8 LH A674, L* A670, L* A676, L* A675
L* A672, L* A679, L* A673, L* A67B

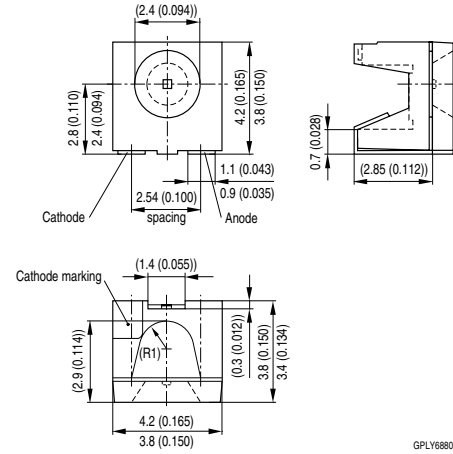


Figure 9 L* W57B

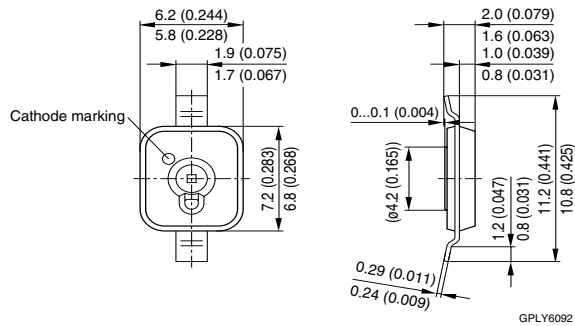


Figure 10 L* Y870, L* Y876, L* Y87S, LW Y87C

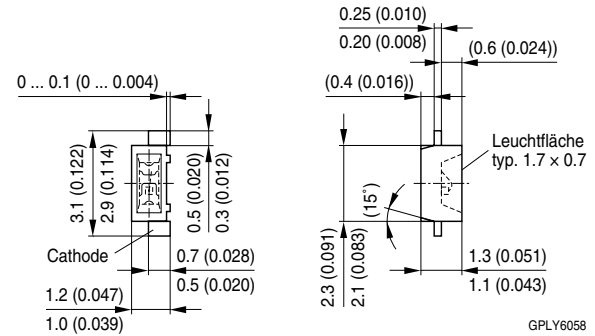


Figure 11 L** T671, L** T676, L** T670

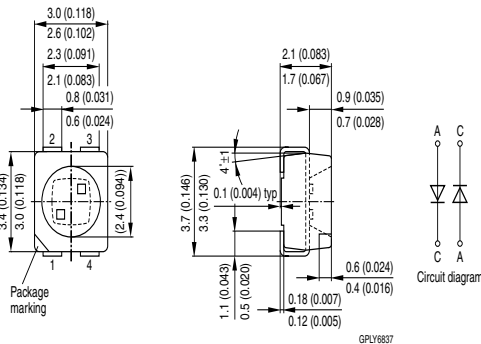
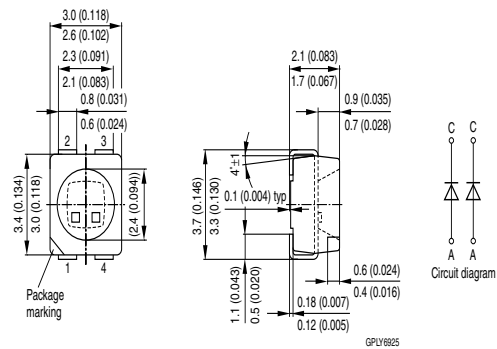


Figure 12 LSG T677, LHG T680



Maßbilder in mm (inch)

Outline Drawings dimensions in mm (inch)

Figure 13 LATB T686, LHGB T686, LATB T683

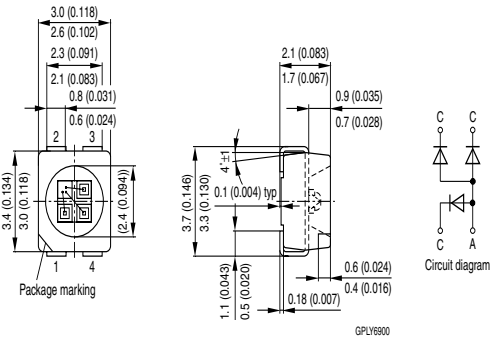


Figure 14 L** T770

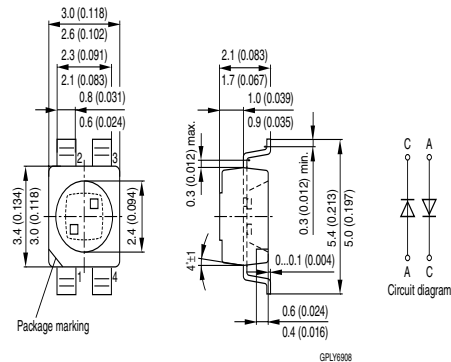


Figure 15 L** A676, L** A671

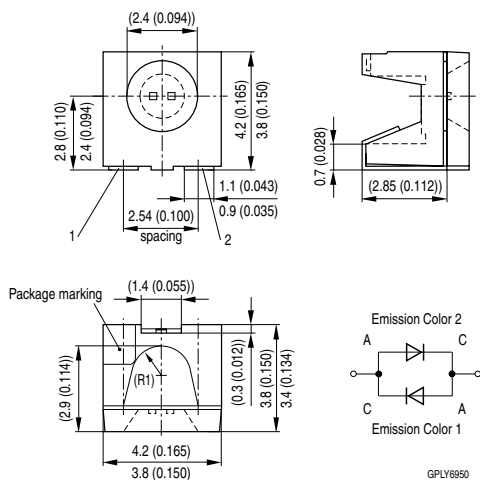


Figure 16 L* L890, L* L896, L* L89S, L* L893, L* 89C, L* 89K

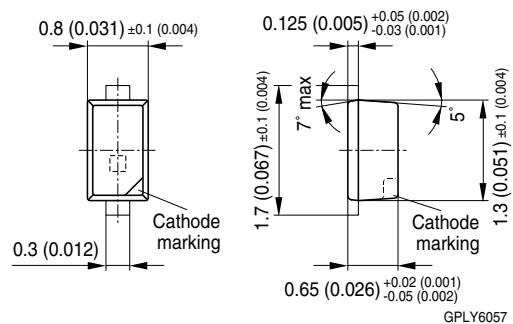


Figure 17 LH R974

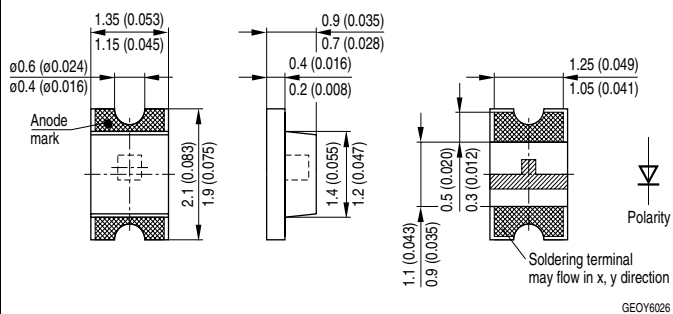
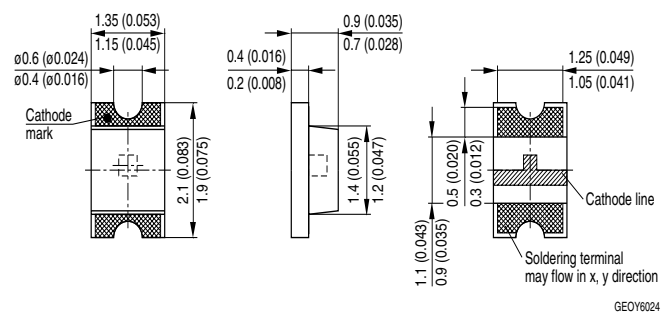


Figure 18 L* R971, L* R976



Maßbilder in mm (inch)

Outline Drawings dimensions in mm (inch)

Figure 19 LB R99A, LW R98A

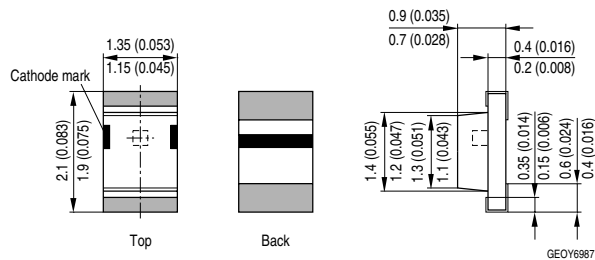


Figure 20 L* Q971, L* Q976

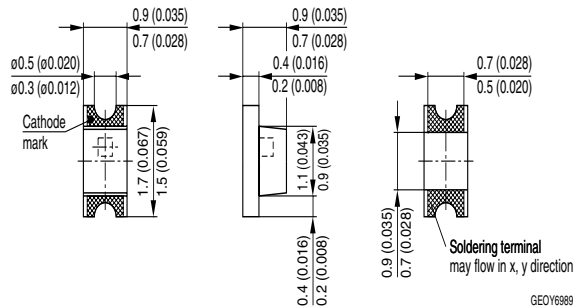


Figure 21 LB Q99A, L* Q993, LW Q98A, LW Q983, LO Q996

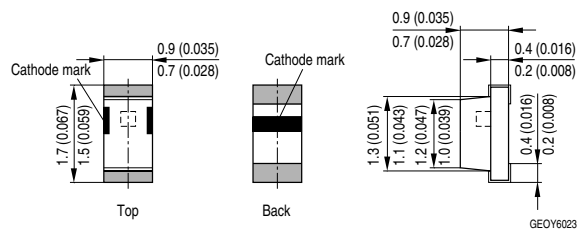


Figure 22 LW Q18S, LW Q18A

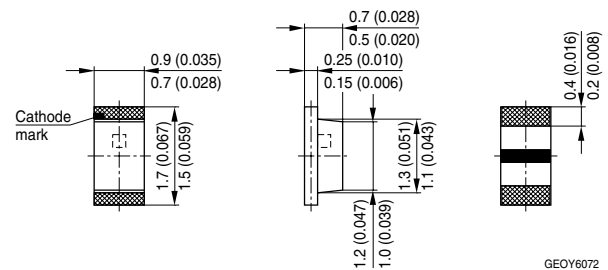


Figure 23 L* N971, LH N974

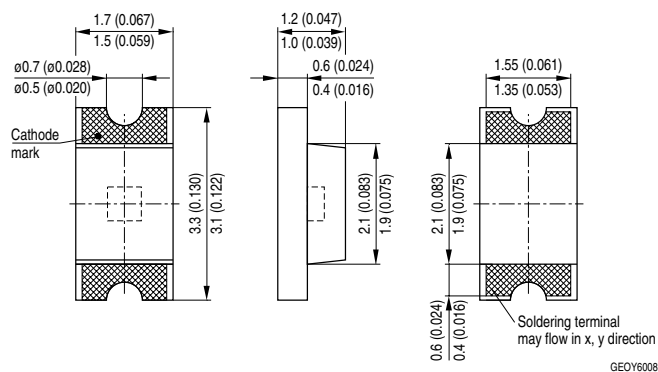
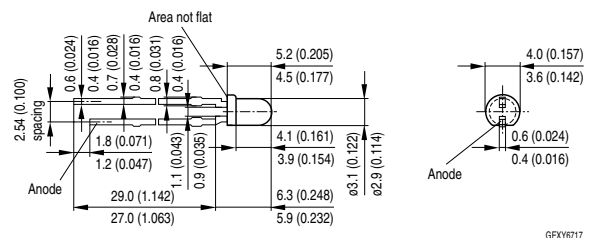
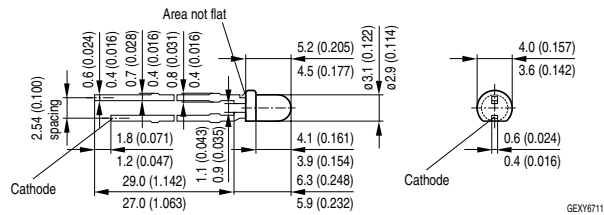
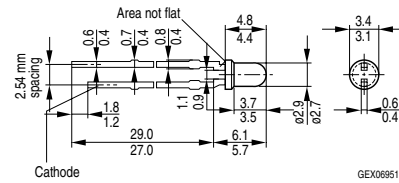
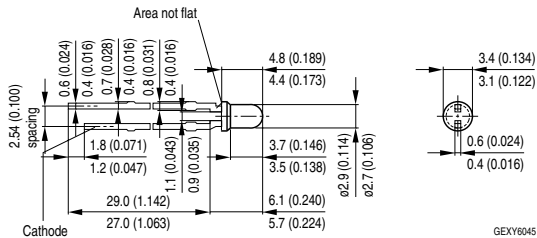
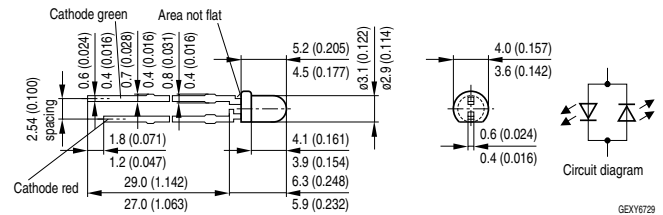
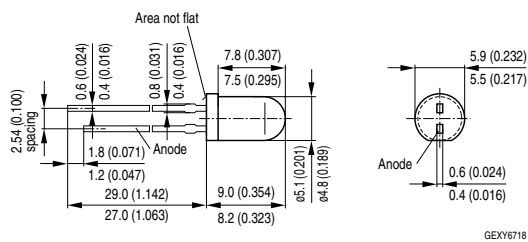
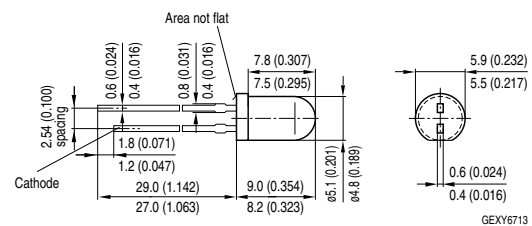


Figure 24 LH 3344, LH 3364



Maßbilder in mm (inch)

Outline Drawings dimensions in mm (inch)

Figure 25 L* 3341**Figure 26** L* 3340, L* 3330**Figure 27** L* 3360, L* 3336, LB 3356, L* 3333, L* 3366
L* 3380, L* 3386, L* 3369**Figure 28** LSG 3331, LSG 3351**Figure 29** LH 5424, LH 5464**Figure 30** L* 5410, L* 5411, L* 5413, L* 5415, L* 5416, L* 541B,
L* 5420, L* 5421, L* 5426, L* 5433, L* 5436, L* 5456, L* 5460,
L* 5466, L* 5469, L* 5480

Outline Drawings dimensions in mm (inch)

Figure 32 L* 5380

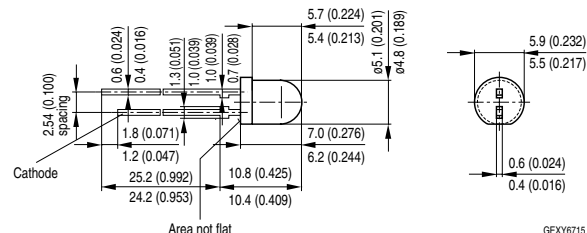


Figure 34 L* Z18*

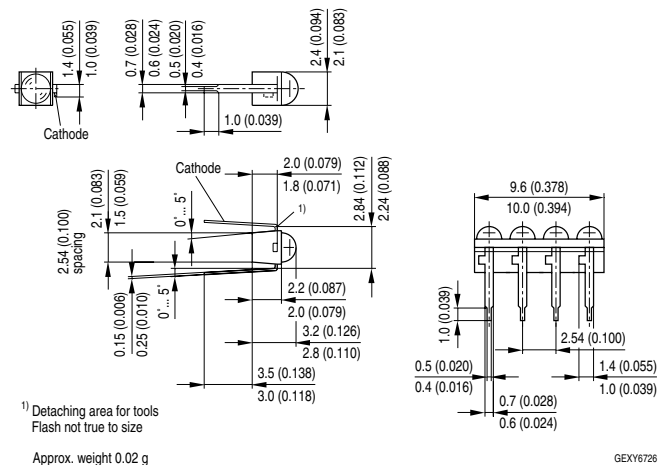
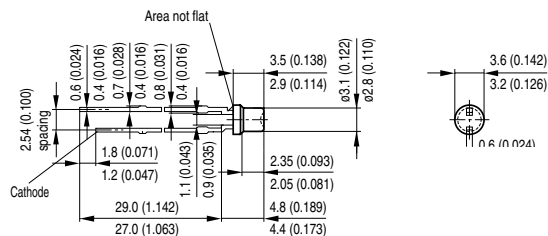
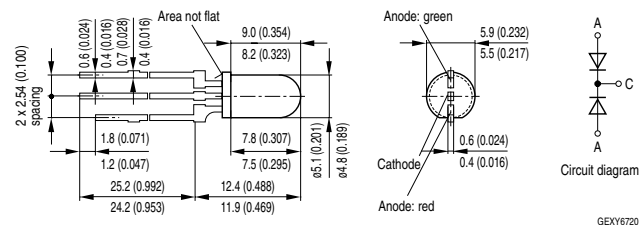
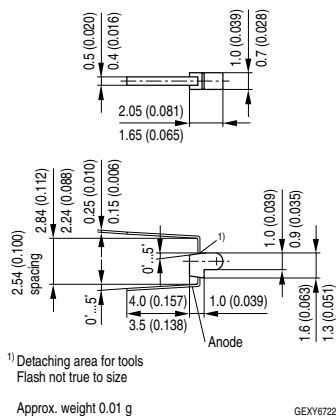
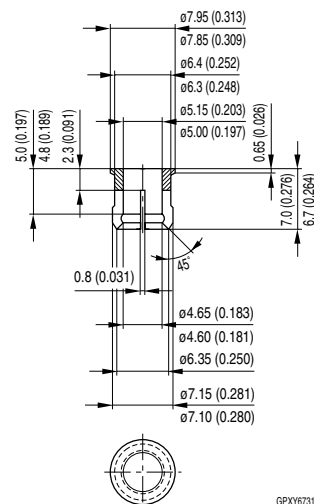


Figure 36 LU 5351



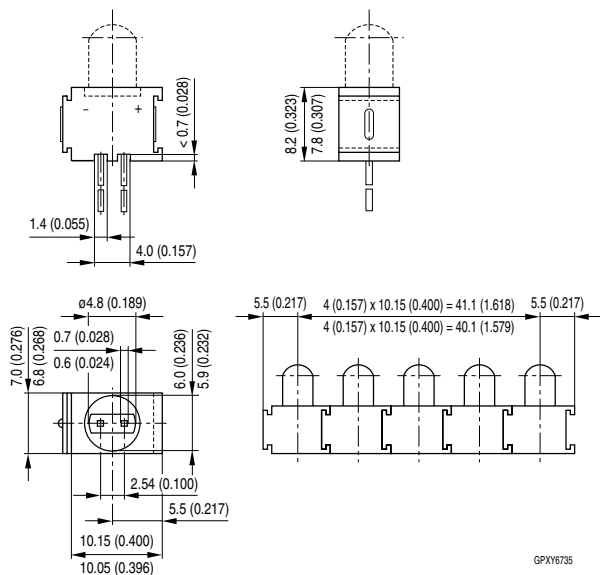
Outline Drawings dimensions in mm (inch)

Figure 38 **Hülse und Ring, 5 mm LED**
Sleeves and ring, 5 mm LED:
Q62901-B64 (glass clear)
Q62901-B65 (black)



Ø Bohrung/bore = 6.45-6 mm *)
 Stärke der Montageplatte = 1.5-2.5 mm *)
 Thickness of mounting board = 1.5-2.5 mm *)

Figure 40 Aneinanderreihbare Halterung für 5 mm LED
Endstackable clips for 5 mm LED
Q62902-B153-F222 (black)



Outline Drawings dimensions in mm (inch)

Figure 42 Winkelhalterungen für 3 mm LED
Rectangular mounting part for 3 mm LED
Q62902-B155-F222 (grey)

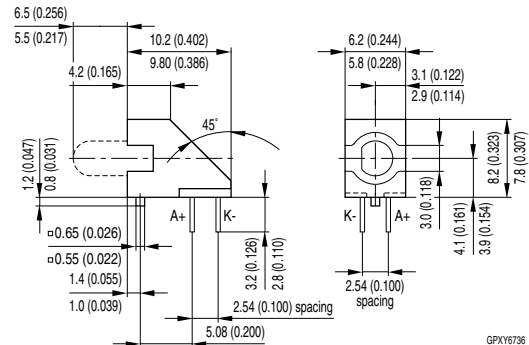


Figure 44 Reflektor für 5 mm LED
Reflector for 5 mm LED
Q62902-B154-F222 (silver)

