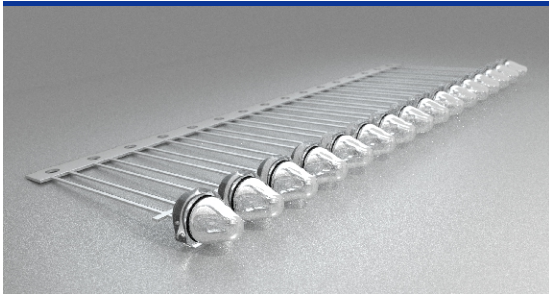




## STL 40B

Color red/yellow, Chip-type AllnGap, Case, water clear



### Description, Features

- Red/yellow light emitting diode
- Ultra-high-brightness performance
- Spatial radiation angle 40°
- High optical precision
- Long lifetime
- Sturdy design

### Typical Applications

- Automotive lighting
- Traffic signal
- Illuminator
- Ultra-high-brightness indicator

### Absolute Maximum Ratings, not to be exceeded at any time

Parameter	Symbol	Min.	Max.	Unit	Condition
Operating Temperature	$T_{OP}$	-40	120	°C	$I_F \leq 70\text{mA}$
Storage Temperature	$T_{STG}$	-50	125	°C	
Operating Current	$I_F$		70	mA	
Junction Temperature	$T_J$		150	°C	
Reverse Voltage	$V_R$		<10	V	
Power Dissipation	$P_D$		200	mW	
Surge Current	$I_P$		100	mA	100Hz, D < 50%, Ta=25°C

### Optical Characteristics @ $T_s=25^\circ\text{C}$

Parameter	Symbol	Value			Unit	Condition
		Min.	Typ.	Max.		
Dominant Wavelength - red	$\lambda_{DOM}$	611	618	626	nm	$I_F=70\text{mA}$
Dominant Wavelength - yellow	$\lambda_{DOM}$	587	591	597	nm	$I_F=70\text{mA}$
Spectral Bandwidth, 50%	$\Delta\lambda$	-	20	-	nm	$I_F=70\text{mA}$
Viewing Angle	$2\Phi_{1/2}$	-	40	-	deg.	
Luminous Flux	$\Theta_V$	1.4			lm	$I_F=70\text{mA}$

### Electrical Characteristics @ 70mA, $T_s=25^\circ\text{C}$

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Forward Voltage	$V_F$	1.85	2.1	2.45	V

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance	$R\theta_{J-PIN}$	85	K/W
Soldering Temperature	$T_{SOLD}$	260°C, 3 seconds maximum	

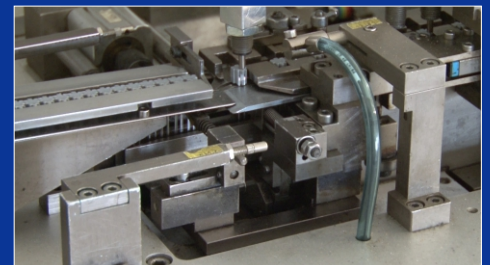
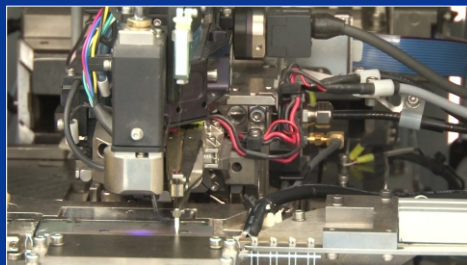
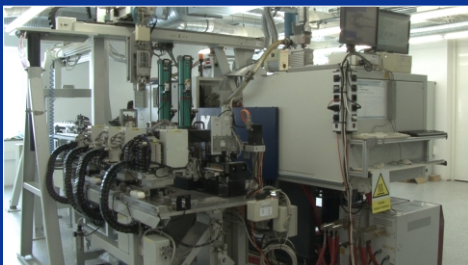
### Optical and Electrical Categories @ 70mA, $T_s=25^\circ\text{C}$ <sup>1</sup>

Dominant Wavelength DOM			Luminous Flux $\theta_v^3$			Forward Voltage Vf		
Bin Code <sup>2</sup>	Min. [nm]	Max. [nm]	Bin Code	Min. [lm]	Max. [lm]	Bin Code	Min. [V]	Max. [V]
	R(red)		A	1.4	1.8	0	1.85	2.05
1	611	618	B	1.8	2.2	1	1.95	2.15
2	614	622	C	2.2	2.6	2	2.05	2.25
3	618	626	D	2.6	3.0	3	2.15	2.35
5	611	615	E	3.0	3.4	4	2.25	2.45
6	615	619	F	3.4	3.8			
7	619	623	G	3.8	4.2			
8	623	627	H	4.2	4.6			
	Y (yellow)		I	4.6	5.0			
0	587	591	J	5.0	5.4			
1	590	594	K	5.4	5.9			
2	593	597						

<sup>1</sup> after 1 min operation,  $R_{thja} \approx 180^\circ\text{C/W}$

<sup>2</sup> customer's special requirements are also welcome

<sup>3</sup> accuracy of 10%

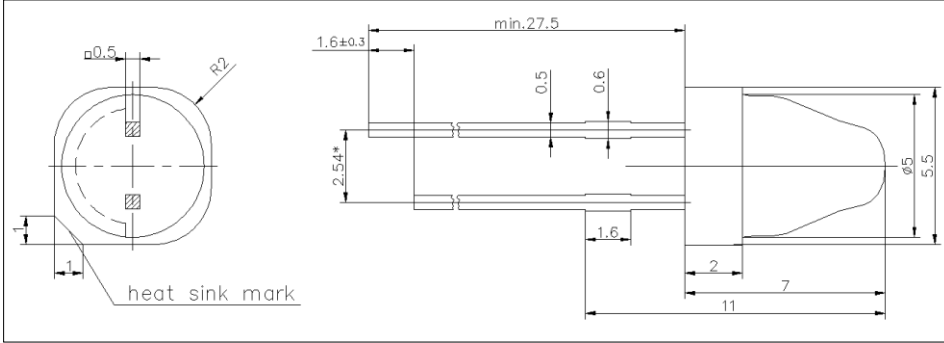




# STL 40B

Color red/yellow, Chip-type AlInGap, Case, water clear

**Outline Drawing:**

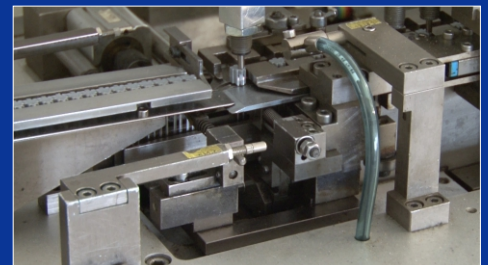
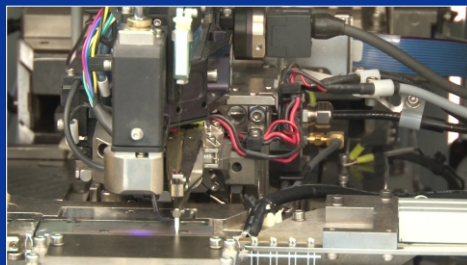
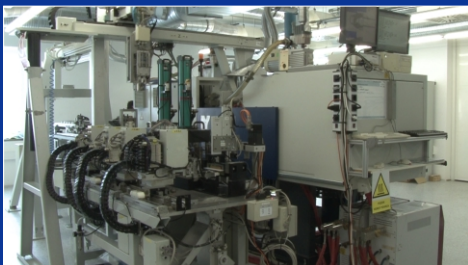
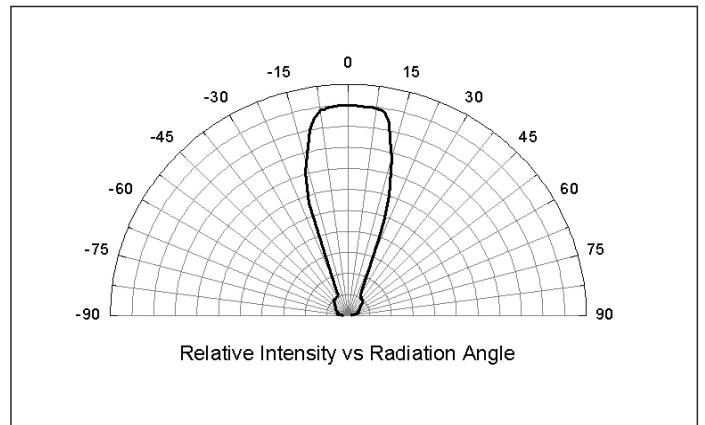
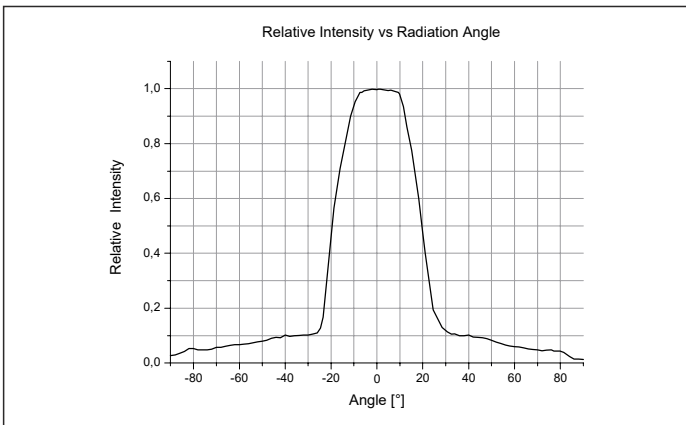
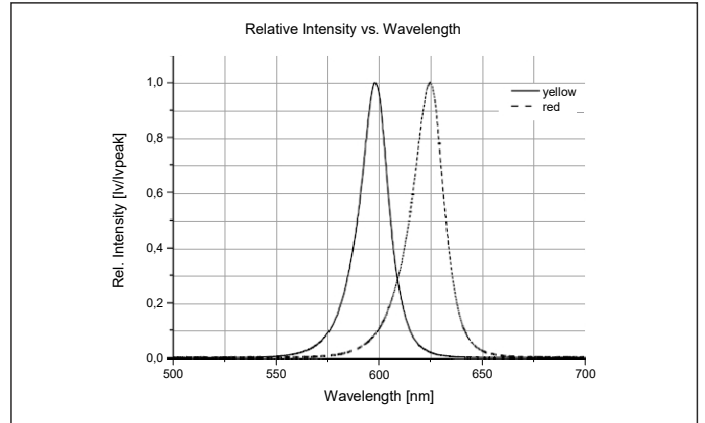
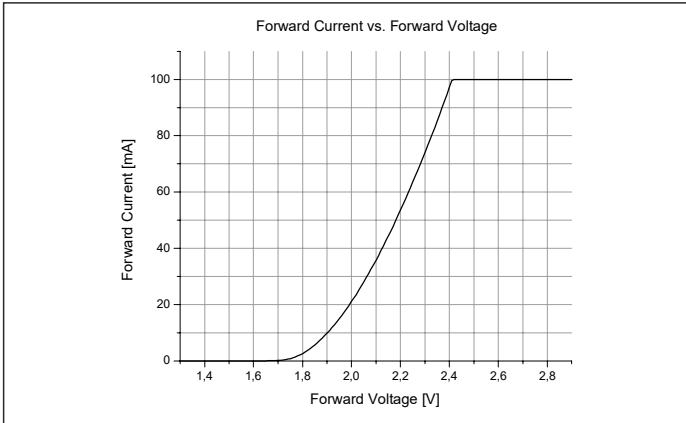


**Device Polarity:**

For STL type LEDs the LED chip is mounted on the Cathode leg. The heat sink mark marks also the Cathode.

all dimensions tolerance  $\pm 0.1$  except given ones  
\* at one bottom of LED

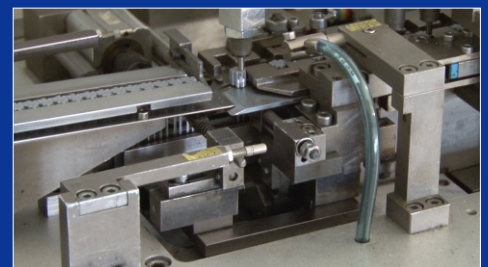
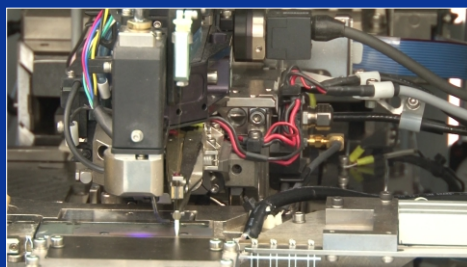
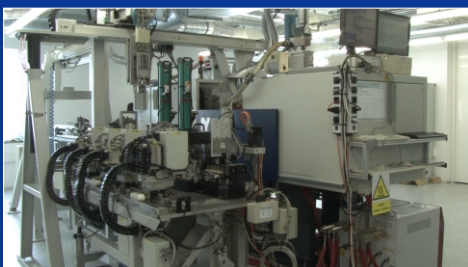
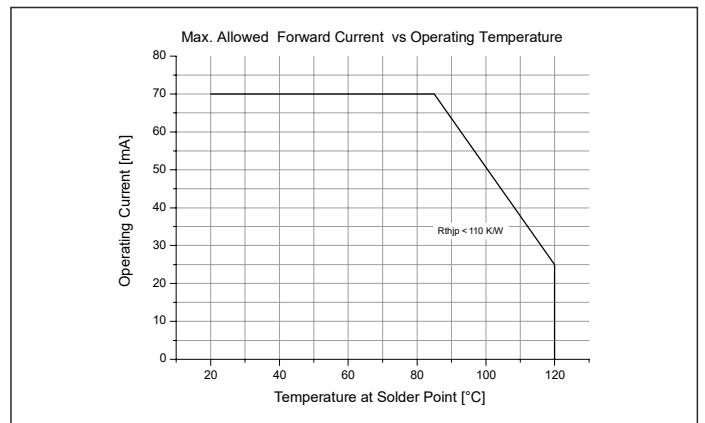
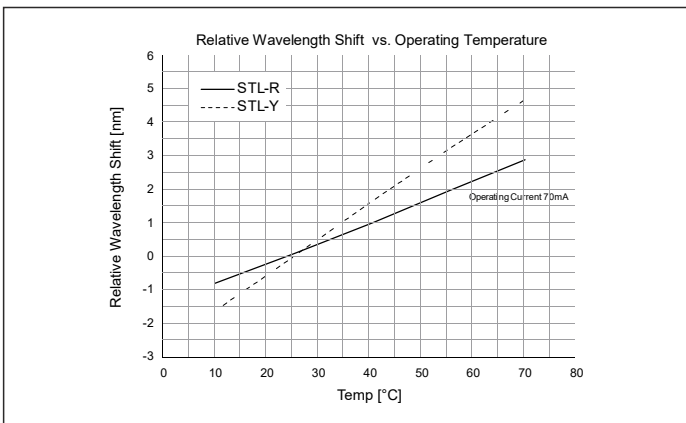
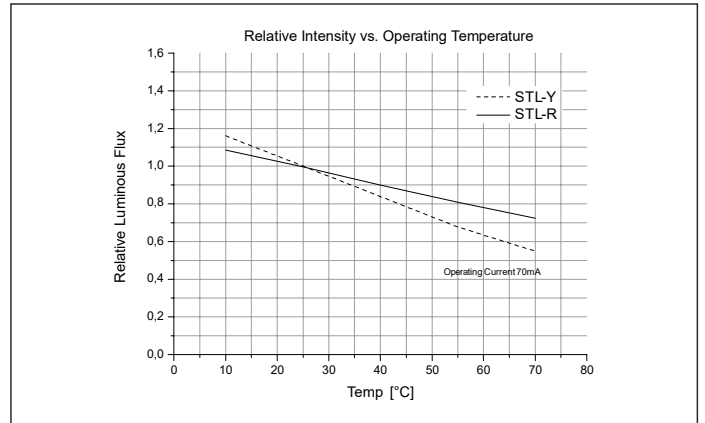
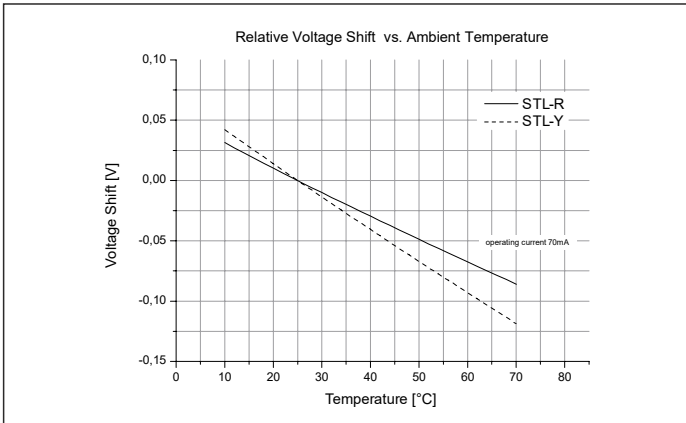
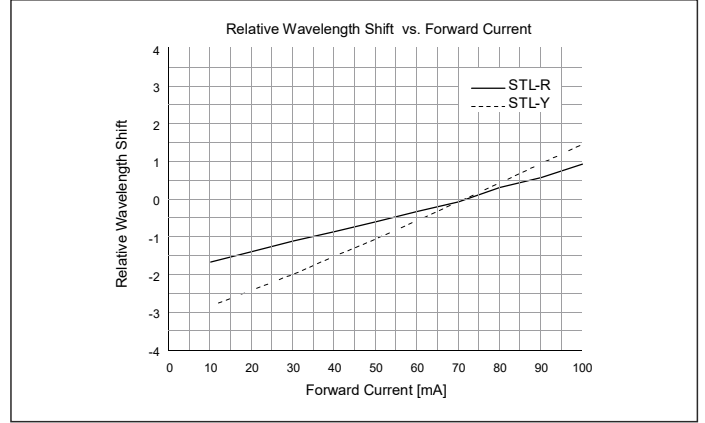
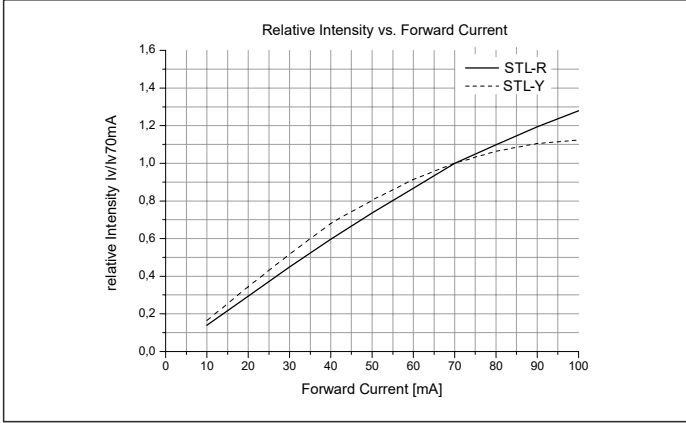
**Typical Electro-Optical Characteristics**





# STL 40B

Color red/yellow, Chip-type AlInGap, Case, water clear





# STL 40B

Color red/yellow, Chip-type AllnGap, Case, water clear

### Binning code definition

Binning code: STL40B-R-xyyzz-T01

STL	40B	-	R	-	x	x	x	x	z	z	-	T01
LED-type												
viewing angle (deg.)												
color												
wavelength minimum bin												
wavelength maximum bin												
luminous flux minimum bin												
luminous flux maximum bin												
forward voltage minimum bin												
forward voltage maximum bin												
delivery form-taped												

### Label for bulk articles



Type: ATL40-Y-11EP33  
 Amount: 69 pcs  
 Lot No.: 19616  
 Date: 29.10.2010  
 Maschine No.: Sorter 6

Barcode: ATL40-Y-11EP33 080FA19616 ATL40-Y

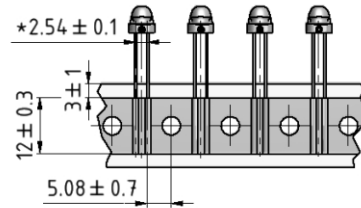
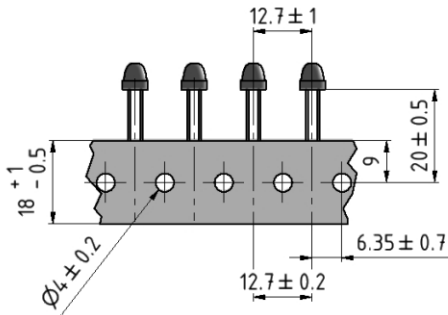
### Specifications of packaging options

SQS Vláknová optika LED offers the LED with two different packaging options. Both packing options are classified in terms of brightness, color and forward voltage.

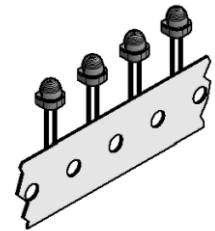
### Bulk LEDs

For the bulk option the LEDs are packed in the EDS protective, permanent dissipative polythene bag with maximum of 2000 pieces per bag.

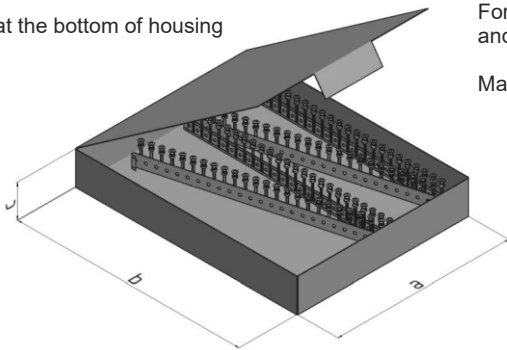
### Taped LEDs



### Tape dimensions



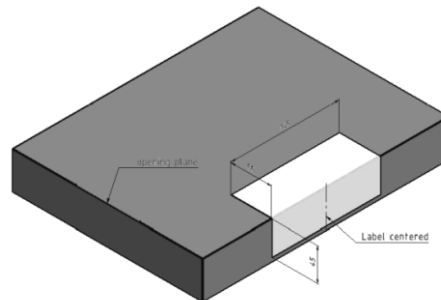
\*at the bottom of housing



### Ammopack:

For taped option the LEDs are packed in Ammopack where the LEDs are arranged in accordion folding and laid in the cardboard box. There are two different depths for cardboard box, 165mm and 255mm.

Maximum LED quantity for 165mm box is 1000 pieces and for 255mm box 2000 pieces.



Version	Dimension		
	a	b	c
1	255	330	55
2	165	330	50



Type: PHAK-Y-110033-T90  
 Amount: 0 pcs  
 Date: 10.2.2011  
 Time: 09:42:43  
 Lot No.: 20768

Barcode: PHAK-Y-110033-T90

RAMG

