



CHIP - standard

A range of surface mount, chip LEDs with a white diffused lens, available in three industry standard sizes. Suitable for many applications including LCD/keypad backlighting, dot matrix displays and panel illumination. Supplied taped and reeled.

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Manf. Part No. & Anglia Order Code	Dimensions (mm)		
0603 Chip Viewing angle 170°	NORMAL BRIGHTNESS					TOL1608MR TOL1608MO TOL1608MY TOL1608MG	 NOTE! - Polarity is reversed for TOL1608MR	
	Red	white-diffused	660	17				
	Orange	white-diffused	610	6				
	Yellow	white-diffused	585	7				
		Green	white-diffused	568	10			
	HIGH BRIGHTNESS					TOL1608MRB TOL1608MOB TOL1608MYB TOL1608MGB		
	Red	white-diffused	632	45				
	Orange	white-diffused	611	45				
	Yellow	white-diffused	593	45				
		Green	white-diffused	570	30			
	0805 Chip Viewing angle 170°	NORMAL BRIGHTNESS					TOL2012MR TOL2012MO TOL2012MY TOL2012MG	 NOTE! - Polarity is reversed for TOL2012MR
		Red	white-diffused	660	17			
		Orange	white-diffused	610	6			
		Yellow	white-diffused	585	7			
		Green	white-diffused	568	10			
HIGH BRIGHTNESS					TOL2012MRB TOL2012MOB TOL2012MYB TOL2012MGB			
Red		white-diffused	632	45				
Orange		white-diffused	611	45				
Yellow		white-diffused	593	45				
		Green	white-diffused	570	30			
1206 Chip Viewing angle 170°		NORMAL BRIGHTNESS					TOL3216MR TOL3216MO TOL3216MY TOL3216MG	 NOTE! - Polarity is reversed for TOL3216MR
		Red	white-diffused	660	17			
		Orange	white-diffused	610	6			
		Yellow	white-diffused	585	7			
		Green	white-diffused	568	10			
	HIGH BRIGHTNESS					TOL3216MRB TOL3216MOB TOL3216MYB TOL3216MGB		
	Red	white-diffused	632	45				
	Orange	white-diffused	611	45				
	Yellow	white-diffused	593	45				
		Green	white-diffused	570	30			

Packaging

TAPE : 8mm wide, 4mm pitch

REEL : 178mm dia.



For the very latest information and news on the full range of TITAN OPTO products available from Anglia, visit our website :

www.anglia.com/titan-opto

Alternatively, contact our Sales Desk to discuss your specific requirements.

CHIP - standard



Case & Viewing Angle

0603 Chip



Viewing angle 140°

NORMAL BRIGHTNESS

Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Chip Height (H) mm
Red	water-clear	650	4	0.8
Red	water-clear	660	10	0.8
Orange	water-clear	610	6.3	0.8
Yellow	water-clear	585	6.3	0.8
Green	water-clear	570	16	0.8
Green	white-diffused	570	16	0.55
Green	white-diffused	570	16	0.4
Pure-Green	water-clear	555	4	0.8

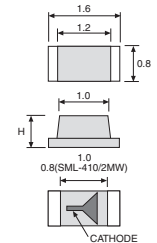
HIGH BRIGHTNESS

Red	white-diffused	630	40	0.55
Red	white-diffused	630	63	0.55
Orange	white-diffused	611	40	0.55
Orange	white-diffused	611	63	0.55
Yellow	white-diffused	590	40	0.55
Yellow	white-diffused	590	63	0.55
Green	white-diffused	570	40	0.55
Green	white-diffused	570	40	0.4
Green*	water-clear	523	90	0.8
Green*	water-clear	518	200	0.8
Blue*	water-clear	428	3.6	0.8
Blue*	water-clear	468	14	0.8
Blue*	water-clear	468	63	0.8

Manf. Part No. & Anglia Order Code

- SML-310VT
- SML-310LT
- SML-310DT
- SML-310YT
- SML-310MT
- SML-510MW
- SML-410MW
- SML-310PT

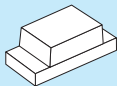
Dimensions (mm)



*These LEDs are electrostatic sensitive devices. Observe precautions for handling

Case & Viewing Angle

0805 Chip



Viewing angle 140°

NORMAL BRIGHTNESS

Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Chip Height (H) mm
Red	water-clear	650	4	0.8
Red	water-clear	660	10	0.8
Orange	water-clear	610	6.3	0.8
Yellow	water-clear	585	6.3	0.8
Green	water-clear	570	16	0.8
Pure-Green	water-clear	555	4	0.8

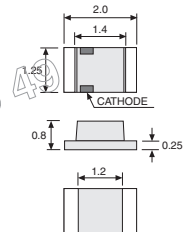
HIGH BRIGHTNESS

Red	water-clear	639	63	0.8
Orange	water-clear	611	63	0.8
Yellow	water-clear	591	63	0.8

Manf. Part No. & Anglia Order Code

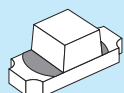
- SML-210VT
- SML-210LT
- SML-210DT
- SML-210YT
- SML-210MT
- SML-210PT

Dimensions (mm)



Case & Viewing Angle

1305 Chip Reverse Mounting



Viewing angle 140°

NORMAL BRIGHTNESS

Green	water-clear	570	16	1.1
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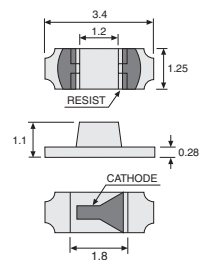
HIGH BRIGHTNESS

Green	water-clear	570	40	1.1
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Manf. Part No. & Anglia Order Code

- SML-810MT
- SML-812MT

Dimensions (mm)



Reverse mounting types, ideal for backlight applications

Packaging

TAPE : 8mm wide, 4mm pitch

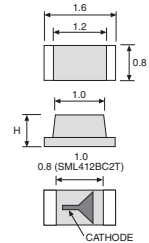
REEL : 178mm dia.

CHIP - low current



Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity mcd @ 1F (mA)	Chip Height (H) mm	Manf. Part No. & anglia Order Code	
0603 Chip Viewing angle 170°	NORMAL BRIGHTNESS						
	Red	water-clear	630	2.5	2	SML-311UT SML-311DT SML-311YT	
	Orange	water-clear	611	2.5	2		
	Yellow	water-clear	590	1.6	2		
	HIGH BRIGHTNESS						
	Blue*	water-clear	468	11.5	5	SML512BC2T SML412BC2T	
	Blue*	water-clear	468	11.5	5		

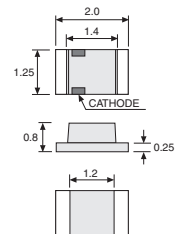
Dimensions (mm)



*These LEDs are electrostatic sensitive devices. Observe precautions for handling

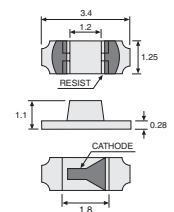
Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity mcd @ 1F (mA)	Chip Height (H) mm	Manf. Part No. & anglia Order Code
0805 Chip Viewing angle 140°	NORMAL BRIGHTNESS					
	Red	water-clear	630	2.5	2	SML-211UT SML-211DT SML-211YT
	Orange	water-clear	611	2.5	2	
	Yellow	water-clear	590	1.6	2	

Dimensions (mm)



Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity mcd @ 1F (mA)	Chip Height (H) mm	Manf. Part No. & anglia Order Code
1305 Chip Reverse Mounting Viewing angle 140°	NORMAL BRIGHTNESS					
	Red	water-clear	630	22.4	10	SML-811UT SML-811DT SML-811WT
	Orange	water-clear	611	22.4	10	
	Yellow	water-clear	590	18	10	

Dimensions (mm)



Reverse mounting types, ideal for backlight applications

Packaging

TAPE : 8mm wide, 4mm pitch

REEL : 178mm dia.

CHIP - blue colour

N.B. These LEDs are electrostatic sensitive devices. Observe precautions for handling



STANDARD

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Chip Height (H) mm	Manf. Part No. & anglia Order Code	Dimensions (mm)
0603 Chip Viewing angle 140°	HIGH BRIGHTNESS					SML310BAT SML311BBT SML312BCT	 Dimensions: 1.6 x 0.8 mm
	Blue	water-clear	428	3.6	0.8		
	Blue	water-clear	468	14	0.8		
	Blue	water-clear	468	63	0.8		
3mm x 2mm Chip with reflector Viewing angle 110°	HIGH BRIGHTNESS					SML010BAT SML011BBT SML012BCT	 Dimensions: 3.0 x 2.0 mm
	Blue	water-clear	428	9	1.3		
	Blue	water-clear	468	36	1.3		
	Blue	water-clear	468	100	1.3		

For further Chip with reflector LEDs see pages overleaf

LOW CURRENT

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 5mA) mcd	Chip Height (H) mm	Manf. Part No. & anglia Order Code	Dimensions (mm)
0603 Chip Viewing angle 140°	HIGH BRIGHTNESS					SML512BC2T SML412BC2T	 Dimensions: 1.6 x 0.8 mm
	Blue	water-clear	468	11.5	0.55		
1.6mm x 1.15mm Side View Chip Viewing angle 130°	HIGH BRIGHTNESS					SMLA12BC2T	 Dimensions: 1.6 x 1.15 mm
	Blue	water-clear	468	11.5	0.55		

Side view type, ideal for backlight applications. For further Side View Chip LEDs see pages overleaf

CHIP - bi-colour

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Chip Height (H) mm	Manf. Part No. & anglia Order Code	Dimensions (mm)
1.3mm x 1.5mm Mini Moulded Chip Viewing angle 170°	NORMAL BRIGHTNESS					SML-521MUW SML-521MDW SML-521MYW	 Dimensions: 1.5 x 1.3 mm
	Red/Green	white-diffused	630/570	40/16	0.6		
	Orange/Green	white-diffused	630/570	40/16	0.6		
	Yellow/Green	white-diffused	630/570	40/16	0.6		
3mm x 2.5mm Chip with reflector Viewing angle 110°	NORMAL BRIGHTNESS					SML-020MLT SML-020MVT SML-020MDT SML-020MYT SML-020PDT	 Dimensions: 3.0 x 2.5 mm
	Red/Green	water-clear	660/570	16/20	1.3		
	Red/Green	water-clear	650/570	6.3/20	1.3		
	Orange/Green	water-clear	610/570	10/20	1.3		
	Yellow/Green	water-clear	585/570	6.3/20	1.3		
	Orange/Pure-Green	water-clear	610/550	10/4.0	1.3		

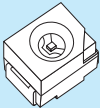
For further Chip with reflector LEDs see pages overleaf

Packaging TAPE : 8mm wide, 4mm pitch REEL : 178mm dia.

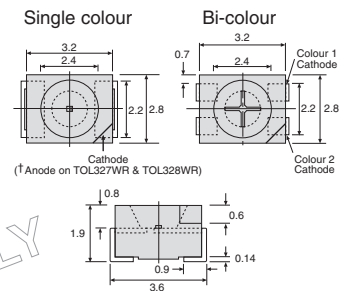


CHIP - with built-in reflector (PLCC-2)

A range of surface mount, chip LEDs with a 2.4mm dia. built-in reflector to improve brightness. Coupled with a clear lens, this makes them ideal for light pipe and backlighting applications. Available in standard form with a water-clear lens, which offers a choice of brightness and single or bi-colour light output. These may replace Osram/Infineon **SMT-TOP-LED**, the Agilent HSMx-A10x-xxxx series and the Fairchild/QT QTL670C-xx series. A group of low current LEDs with a coloured-clear lens, are also provided. These are ideal for portable equipment or as substitutes for standard products when a reduced power consumption is required. Suitable for wave and reflow soldering, the devices are supplied taped and reeled. N.B. Pure-green and bluish-green LEDs are electrostatic sensitive devices. Observe precautions for handling.

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Manf. Part No. & Anglia Order Code
3.2mm x 2.8mm Chip with reflector  Viewing angle 120°	STANDARD water-clear				
	NORMAL BRIGHTNESS				
	Red	water-clear	635	23.2	TOL326WR TOL326WY TOL326WG TOL326WG520 TOL326WG502
	Yellow	water-clear	585	17.6	
	Green	water-clear	567	21.2	
	Pure-Green	water-clear	525*	220	
	Bluish-Green	water-clear	505*	100	
	* dominant				
	NORMAL BRIGHTNESS, BI-COLOUR				
	Green/Red	water-clear	567/635	20/15	TOL326WGR TOL326WRG
	Red/Green	water-clear	635/567	15/20	
	HIGH BRIGHTNESS				
	Red	water-clear	660	141	TOL327WR † TOL328WR † TOL328WO TOL328WO611 TOL328WY TOL328WG
	Red	water-clear	660	285	
	Orange	water-clear	621	270	
Orange	water-clear	611	210		
Yellow	water-clear	593	270		
Green	water-clear	567	100		
LOW CURRENT coloured-clear					
NORMAL BRIGHTNESS (I_F = 2mA)					
Red	red-clear	630	6	TOL323CR TOL323CY TOL323CG	
Yellow	yellow-clear	589	4		
Green	green-clear	572	5		

Dimensions (mm)



Packaging

TAPE : 12mm wide, 4mm pitch

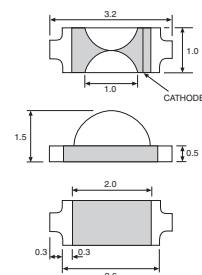
REEL : 178mm dia.

CHIP - side view

A range of surface mount, chip LEDs with a right angle, water clear lens for side viewing. Suitable for many applications including LCD/keypad backlighting, dot matrix displays and panel illumination. Supplied taped and reeled.

Case & Viewing Angle	Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd	Manf. Part No. & Anglia Order Code
3.2mm x 1.0mm Side View Chip  Viewing angle 120° x 130°	NORMAL BRIGHTNESS				
	Red	water-clear	660	20	TOL3210WR TOL3210WO TOL3210WY TOL3210WG
	Orange	water-clear	610	6	
	Yellow	water-clear	585	8	
	Green	water-clear	568	11	
	HIGH BRIGHTNESS				
	Red	water-clear	632	50	TOL3210WRB TOL3210WOB TOL3210WYB TOL3210WGB
	Orange	water-clear	611	50	
	Yellow	water-clear	593	50	
	Green	water-clear	570	34	

Dimensions (mm)



Packaging

TAPE : 8mm wide, 4mm pitch

REEL : 178mm dia.

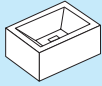
CHIP - with built-in reflector

NEW

SMD

Case & Viewing Angle

3mm x 2mm
Chip with reflector



Viewing angle 110°

STANDARD

NORMAL BRIGHTNESS

Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 20mA) mcd
Red	water-clear	650	6.3
Red	water-clear	660	16
Orange	water-clear	610	10
Yellow	water-clear	585	6.3
Green	water-clear	570	25
Pure-Green	water-clear	555	6.3

HIGH BRIGHTNESS

Red	water-clear	630	100
Orange	water-clear	611	100
Yellow	water-clear	590	100
Green*	water-clear	523	140
Green*	water-clear	518	360
Blue*	water-clear	428	9
Blue*	water-clear	468	36
Blue*	water-clear	468	100

*These LEDs are electrostatic sensitive devices. Observe precautions for handling

LOW CURRENT

HIGH BRIGHTNESS

Emitted Colour	Lens Colour	Peak Wavelength nm	Typ. Luminous Intensity (I _F = 10mA) mcd
Red	water-clear	630	63
Orange	water-clear	611	63
Yellow	water-clear	590	63

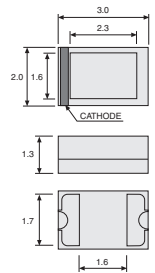
Manf. Part No. & Anglia Order Code

SML-010VT
SML-010LT
SML-010BT
SML-010YT
SML-010MT
SML-010PT

SML-012UT
SML-012DT
SML-012YT
SML011EBT
SML012ECT
SML010BAT
SML011BBT
SML012BCT

SML-011UT
SML-011DT
SML-011YT

Dimensions (mm)



CHIP - side view

Ideal for backlight applications.

NEW

SMD

Case & Viewing Angle

1.6mm x 1.15mm
Side View Chip



Viewing angle 130°

STANDARD

NORMAL BRIGHTNESS

Green	water-clear	570	16
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HIGH BRIGHTNESS

Red	water-clear	630	63
Orange	water-clear	611	63
Yellow	water-clear	590	63
Green	water-clear	570	40

LOW CURRENT

HIGH BRIGHTNESS

Blue*	water-clear	468	11.5
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*These LEDs are electrostatic sensitive devices. Observe precautions for handling

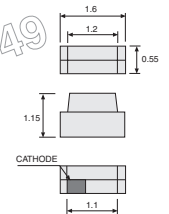
Manf. Part No. & Anglia Order Code

SML-A10MT

SML-A12UT
SML-A12DT
SML-A12WT
SML-A12MT

SMLA12BC2T

Dimensions (mm)



Packaging

TAPE : 8mm wide, 4mm pitch

REEL : 178mm dia.

ROHM

For the very latest information and news on the full range of ROHM products available from Anglia, visit our website :

www.anglia.com/rohm

Alternatively, contact our Sales Desk to discuss your specific requirements.