
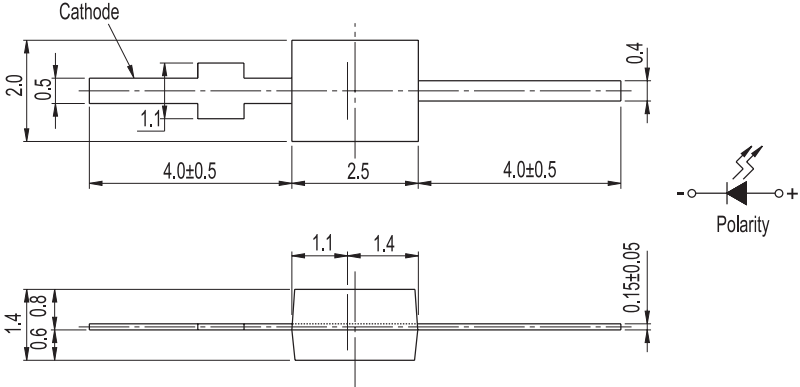



Part Number EL-xxxx	Lens Color	V _F (V) at I _F = 10uA	
		Min.	Max.

Constant Voltage Diode (Axial Type) LED


UNIT: mm

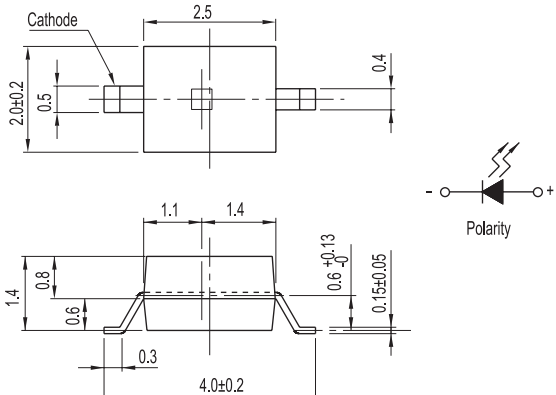
			
			
28-21/2/F5	Black Diff.	1.32	1.52
28-21/03/F5		1.48	1.62
28-21/04/F5		1.48	1.64


Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = 20mA		
							Min.	Typ.	

1.4mm Height Subminiature, Axial Flat Top View LED

UNIT: mm




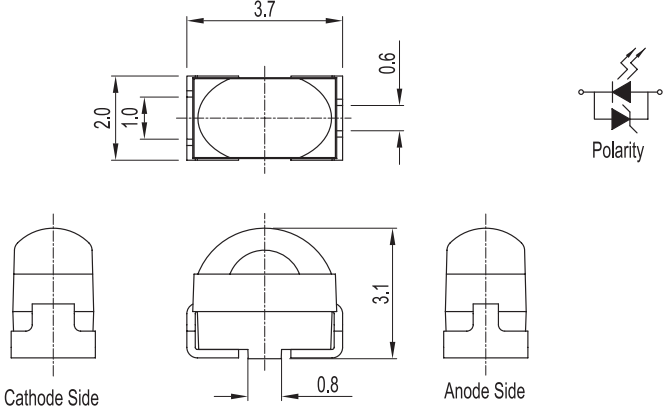




RoHS

28-21 UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	10	12	150
28-21 SUBC/S400-A4/TR8	InGaN	Blue	470		3.5	4.3	14.5	20.5	
28-21 SUGC/S400-A4/TR8	InGaN	Super Green	525		3.5	4.3	112	167	
28-21 SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	16	20	
28-21 UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	12	30	
28-21 UYOC/S530-A2/TR8	AlGaInP	Super Yellow Orange	605		2.0	2.4	12	30	
28-21 SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	12	29	

Luminosity white color LED






RoHS

44-11 UWC/TR8	InGaN	White	x=0.29 y=0.30	Water Clear	3.3	3.7	700	1400	110
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Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

1.9mm Round Subminiature "Gull Wing" Lead LED

UNIT: mm

		RoHS								
	91-21 UBC/C430/TR7	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
	91-21 SUBC/S400-A4/TR7	InGaN	Blue	470		3.5	4.3	400	500	
	91-21 SUGC/S400-A4/TR7	InGaN	Super Green	525		3.5	4.3	2000	2300	
	91-21 SYGC/S530-E2/TR7	AlGaInP	Super Yellow Green	573		2.0	2.0	264	330	
	91-21 UYC/S530-A2/TR7	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
	91-21 UYOC/S530-A2/TR7	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
91-21 SURC/S530-A2/TR7	AlGaInP	Hyper Red	624	2.0		2.4	198	482		

1.9mm Round Subminiature "Yoke" Lead LED

		RoHS								
	91-21 UBC/C430/TR9	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
	91-21 SUBC/S400-A4/TR9	InGaN	Blue	470		3.5	4.3	400	500	
	91-21 SUGC/S400-A4/TR9	InGaN	Super Green	525		3.5	4.3	2000	2300	
	91-21 SYGC/S530-E2/TR9	AlGaInP	Super Yellow Green	573		2.0	2.4	264	330	
	91-21 UYC/S530-A2/TR9	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
	91-21 UYOC/S530-A2/TR9	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
91-21 SURC/S530-A2/TR9	AlGaInP	Hyper Red	624	2.0		2.4	198	482		

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

1.9mm Round Subminiature "Z-Bend" Lead LED

UNIT: mm

	91-21 UBC/C430/TR10	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
	91-21 SUBC/S400-A4/TR10	InGaN	Blue	470		3.5	4.3	400	500	
	91-21 SUGC/S400-A4/TR10	InGaN	Super Green	525		3.5	4.3	2000	2300	
	91-21 SYGC/S530-E2/TR10	AlGaInP	Super Yellow Green	573		2.0	2.4	264	330	
	91-21 UYC/S530-A2/TR10	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
	91-21 UYOC/S530-A2/TR10	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
	91-21 SURC/S530-A2/TR10	AlGaInP	Hyper Red	624		2.0	2.4	198	482	

1.9mm Round Subminiature "Gull Wing" Lead (Square Base) LED

	95-21 UBC/C430/TR7	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
	95-21 SUBC/S400-A4/TR7	InGaN	Blue	470		3.5	4.3	400	500	
	95-21 SUGC/S400-A4/TR7	InGaN	Super Green	525		3.5	4.3	2000	2300	
	95-21 SYGC/S530-E2/TR7	AlGaInP	Super Yellow Green	573		2.0	2.4	264	330	
	95-21 UYC/S530-A2/TR7	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
	95-21 UYOC/S530-A2/TR7	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
	95-21 SURC/S530-A2/TR7	AlGaInP	Hyper Red	624		2.0	2.4	198	482	

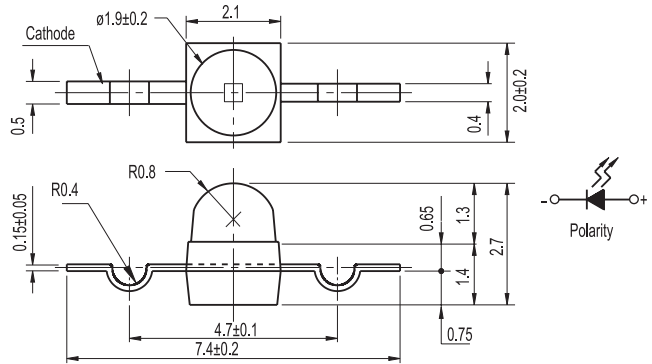
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

1.9mm Round Subminiature "Yoke" Lead (Square Base) LED

UNIT: mm



RoHS

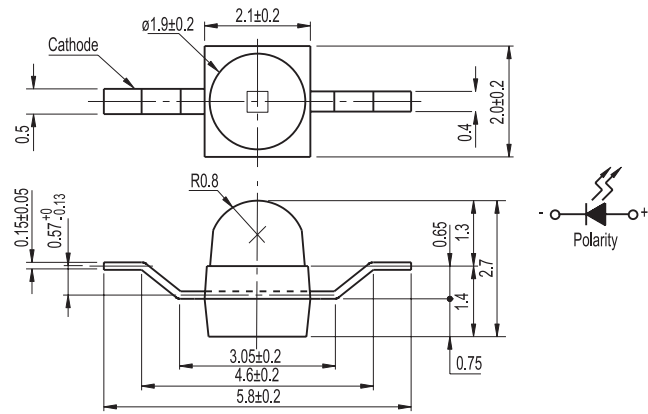


95-21 UBC/C430/TR9	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
95-21 SUBC/S400-A4/TR9	InGaN	Blue	470		3.5	4.3	400	500	
95-21 SUGC/S400-A4/TR9	InGaN	Super Green	525		3.5	4.3	2000	2300	
95-21 SYGC/S530-E2/TR9	AlGaInP	Super Yellow Green	573		2.0	2.4	264	330	
95-21 UYC/S530-A2/TR9	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
95-21 UYOC/S530-A2/TR9	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
95-21 SURC/S530-A2/TR9	AlGaInP	Hyper Red	624		2.0	2.4	198	482	

1.9mm Round Subminiature "Z-Bend" Lead (Square Base) LED



RoHS



95-21 UBC/C430/TR10	GaN/SiC	Blue	466	Water Clear	3.8	4.5	160	203	25
95-21 SUBC/S400-A4/TR10	InGaN	Blue	470		3.5	4.3	400	500	
95-21 SUGC/S400-A4/TR10	InGaN	Super Green	525		3.5	4.3	2000	2300	
95-21 SYGC/S530-E2/TR10	AlGaInP	Super Yellow Green	573		2.0	2.4	264	330	
95-21 UYC/S530-A2/TR10	AlGaInP	Super Yellow	589		2.0	2.4	198	496	
95-21 UYOC/S530-A2/TR10	AlGaInP	Super Yellow Orange	605		2.0	2.4	198	496	
95-21 SURC/S530-A2/TR10	AlGaInP	Hyper Red	624		2.0	2.4	198	482	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

0605 Package Chip LED (0.6mm)

UNIT: mm

 Preliminary									
	10-21/G6C-BMIN2B/3T	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.35	18	31.5

1206 Package Chip LED with Inner Lens

	11-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	26	33
11-21/BHC-AP2R1/2T	InGaN	Blue	470	3.5		4.0	57	100	
11-21/GHC-YT1U2/2T	InGaN	Brilliant Green	525	3.5		4.0	285	500	
11-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573	2.0		2.4	19	29	
11-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589	2.0		2.4	29	73	
11-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624	2.0		2.4	29	71	



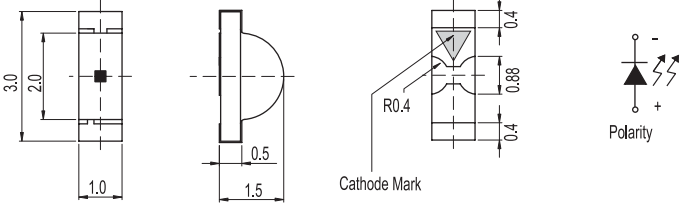
Chip LED with Right Angle Lens

	12-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	17	22
12-21/BHC-AN1P2/2C	InGaN	Blue	470	3.5		4.0	28.5	45	
12-21/GHC-YR2S2/2C	InGaN	Brilliant Green	525	3.5		4.0	140	200	
12-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573	2.0		2.4	6	19	
12-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589	2.0		2.4	19	48	
12-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624	2.0		2.4	19	47	



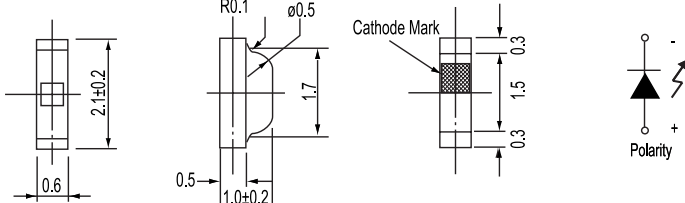
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Chip LED with Right Angle Lens



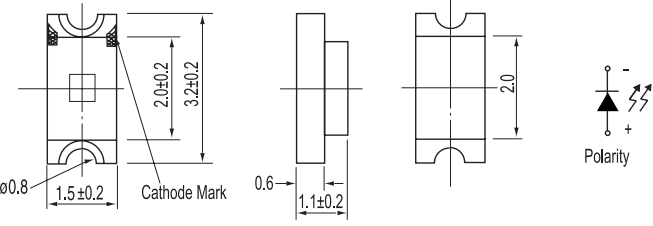
UNIT: mm

 									
	12-21C/BHC-ANQ/2C	InGaN	Blue	470	Water Clear	3.5	4.0	28.5	65
12-21C/GHC-YR2T1/2C	InGaN	Brilliant Green	525	3.5		4.0	140	250	

Chip LED with Right Angle Lens

 									
	* I _F at 5mA								
12-215UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	14	22	130
12-215/BHC-AN1P2/3C	InGaN	Blue	470		3.5	4.0	28.5	40	
12-21/GHC-YR1S2/3C	InGaN	Brilliant Green	525		3.5	4.0	112	160	
12-215SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	10	16	
12-215UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	20	49	
12-215SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	20	48	
12-215/W1D-ANPHY/3C*	InGaN	White	X 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	40	140

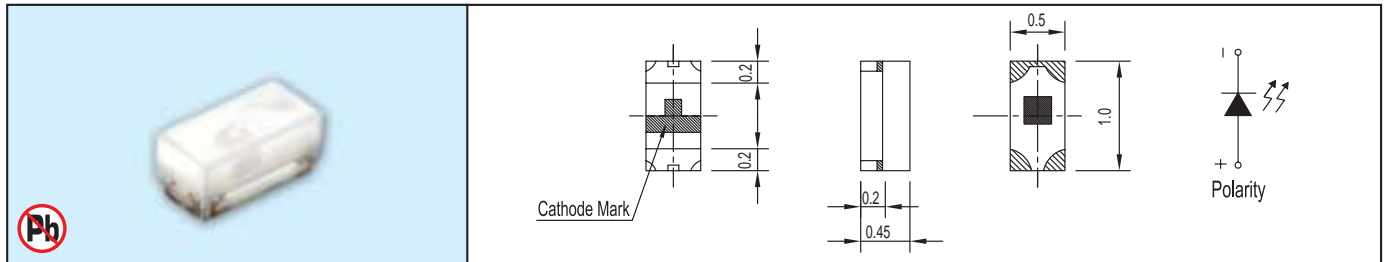
1206Package Chip LED (1.1mm Height)

 									
	* I _F at 5mA								
15-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	14	18	130
15-21/BHC-AN1P2/2T	InGaN	Blue	470		3.5	4.0	28.5	40	
15-21/GHC-YR1S1/2T	InGaN	Brilliant Green	525		3.5	4.0	112	160	
15-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	10	15	
15-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	15	39	
15-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	15	38	
15-21/W1D-APQHY/2T*	InGaN	White	X 0.29 y 0.30	Yellow Diff.	2.90	3.15	45	72	140

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

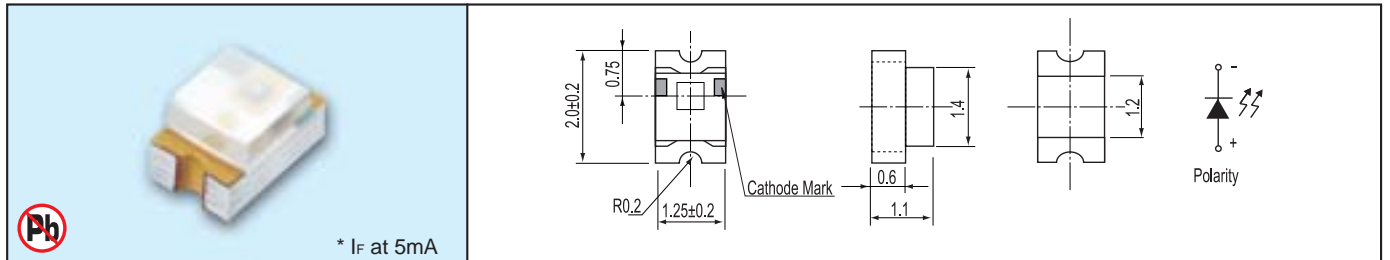
0402 Package Chip LED (0.45mm Height)

UNIT: mm



16-213SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	10	15	120
16-213UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	15	38	
16-213SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	15	36	

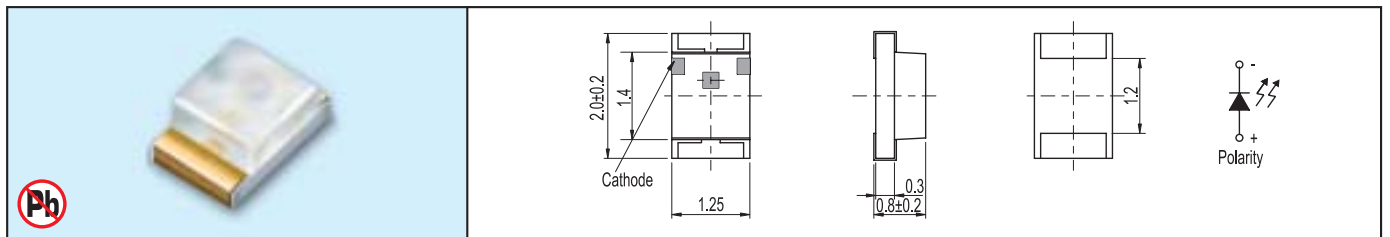
0805 Package Chip LED (1.1mm Height)



* I_F at 5mA

17-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	16	20	140
17-21/BHC-AN1P2/3T	InGaN	Blue	470		3.5	4.0	28.5	45	
17-21/GHC-YR1S2/3T	InGaN	Brilliant Green	525		3.5	4.0	112	170	
17-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	12	17	
17-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	17	43	
17-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	17	42	
17-21/W1D-ANPHY/3T*	InGaN	White	X 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	40	150

0805 Package Chip LED (0.8mm Height)



17-215UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	12	15	130
17-215/BHC-AN1P2/3T	InGaN	Blue	470		3.5	4.0	28.5	40	
17-215/GHC-YR1S2/3T	InGaN	Brilliant Green	525		3.5	4.0	112	170	
17-215SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	9	13	
17-215UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	13	33	
17-215SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	13	32	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

0603 Package Chip LED (0.8mm Height)

UNIT: mm

<p>Pb RoHS</p> <p>* I_F at 5mA</p>										
	19-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	14	18	100
	19-21/BHC-AN1P2/3T	InGaN	Blue	470		3.5	4.0	28.5	40	
	19-21/GHC-YR1S2/3T	InGaN	Brilliant Green	525		3.5	4.0	112	160	
	19-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	11	16	
	19-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	16	40	
	19-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	16	39	
	19-21/W1D-ANPHY/3T*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	40	110

0603 Package Chip LED (0.6mm Height)

<p>Pb RoHS</p> <p>* I_F at 5mA</p>										
	19-213UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	14	18	120
	19-213/BHC-AN1P2/3T	InGaN	Blue	470		3.5	4.0	28.5	40	
	19-213/GHC-YR1S2/3T	InGaN	Brilliant Green	525		3.5	4.0	112	180	
	19-213SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	10	16	
	19-213UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	16	39	
	19-213SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	16	38	
	19-213/W1D-ANPHY/3T*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	40	130

0603 Package Chip LED (0.4mm Height)

<p>Pb RoHS</p> <p>* I_F at 5mA</p>										
	19-217/BHC-AN1P2/3T	InGaN	Blue	470	Water Clear	3.5	4.0	28.5	40	120
	19-217/GHC-YR1S2/3T	InGaN	Brilliant Green	525		3.5	4.0	112	180	
	19-217/G7C-AL1M2B/3T	AlGaInP	Super Yellow Green	573		2.0	2.35	11.5	21	
	19-217/Y5C-AP1Q2/3T	AlGaInP	Super Yellow	589		2.0	2.4	45	75	
	19-217/R6C-P1Q2/3T	AlGaInP	Hyper Red	624		2.0	2.4	45	75	
	19-217/W1D-APQHY/3T*	InGaN	White	x 0.29 y 0.30		Yellow Diff.	2.90	3.15	45	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Chip LED with Right Angle Lens

UNIT: mm

<p>Pb RoHS</p>										
	22-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	15	17	130
	22-21/BHC-AN1P2/2C	InGaN	Blue	470		3.5	4.0	28.5	40	
	22-21/GHC-YR1S2/2C	InGaN	Brilliant Green	525		3.5	4.0	112	180	
	22-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	10	16	
	22-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	16	39	
	22-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	16	38	

Reverse Package Chip LED

<p>Pb RoHS</p>										
	23-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	15	18	130
	23-21/BHC-AN1P2/2A	InGaN	Blue	470		3.5	4.0	28.5	45	
	23-21/GHC-YR2T1/2A	InGaN	Brilliant Green	525		3.5	4.0	140	360	
	23-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	11	16	
	23-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	16	41	
	23-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	16	40	


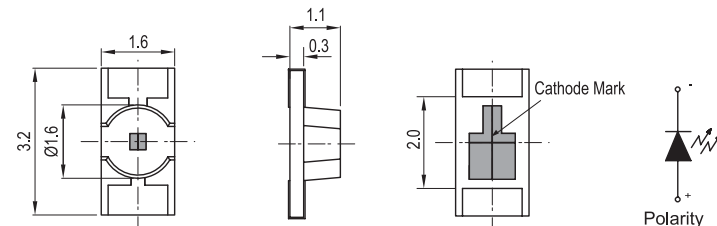
Reverse Package Chip LED

<p>Pb RoHS</p> <p>* I_F at 5mA</p>										
	23-21B/BHC-AN1P2/2A	InGaN	Blue	470	Water Clear	3.5	4.0	28.5	45	130
	23-21B/GHC-YR2T1/2A	InGaN	Brilliant Green	525		3.5	4.0	140	240	
	23-21B/W1D-ANQHY/2A*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	57	140


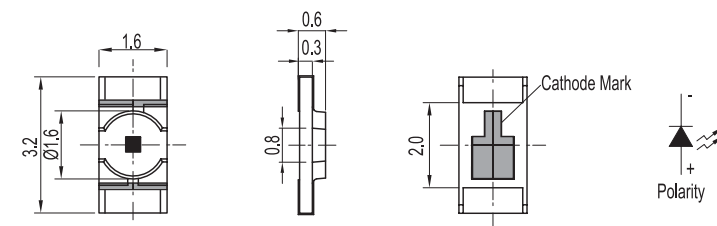
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Reverse Package Chip LED


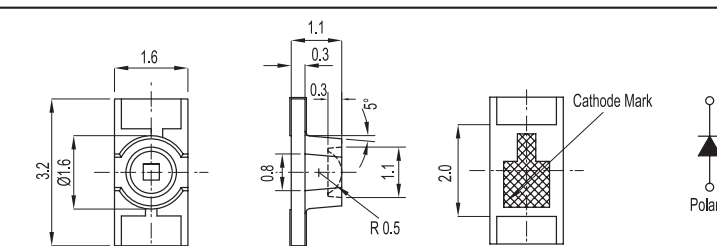
UNIT: mm

 <p>Pb RoHS</p>										
	24-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	15	18	130
	24-21/BHC-AN1P2/2A	InGaN	Blue	470		3.5	4.0	28.5	45	
	24-21/GHC-YR2T1/2A	InGaN	Brilliant Green	525		3.5	4.0	140	220	
	24-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	11	16	
	24-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	16	41	
	24-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	16	40	

Reverse Package Chip LEDs (0.4mm Height)

 <p>Pb RoHS</p> <p>* I_F at 5mA</p>									
	24-216/W1D-APQHY/2A*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.9	3.15	45	80



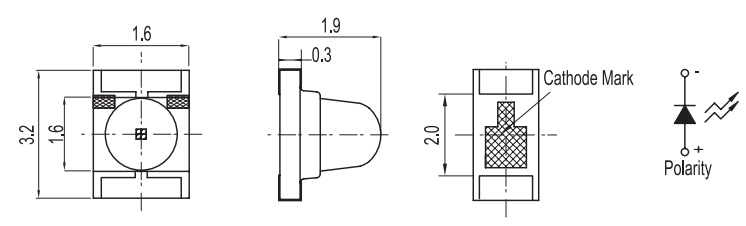
Reverse Package Chip LED with Inner Lens

 <p>Pb RoHS</p> <p>* I_F at 5mA</p>										
	25-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	16	20	60
	25-21/BHC-APR/2A	InGaN	Blue	470		3.5	4.0	45	110	
	25-21/GHC-YSU/2A	InGaN	Brilliant Green	525		3.5	4.0	180	450	
	25-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	12	18	
	25-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	18	45	
	25-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	18	44	
	25-21/W1D-ANQHY/2A*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	57	70



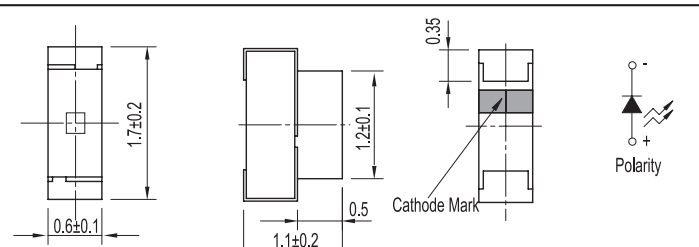
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)			Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = mA	Min.	Typ.	

1.6mm Round Subminiature Reverse Package Chip LED



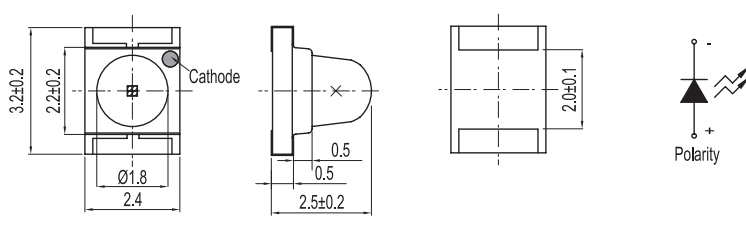
UNIT: mm

 										
	26-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	200	315	30
	26-21UYC/S530-A3/TR8	AlGaInP	Super Yellow	589		2.0	2.4	400	650	
	26-21SURC/S530-A3/TR8	AlGaInP	Hyper Red	624		2.0	2.4	400	650	

Chip LED with Right Angle Lens

 										
	27-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	14	18	130
	27-21/BHC-AN1P2/3C	InGaN	Blue	470		3.5	4.0	28.5	40	
	27-21/GHC-YR1S2/3C	InGaN	Brilliant Green	525		3.5	4.0	112	170	
	27-21SYGC/S530-E1/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	10	15	
	27-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	15	34	
	27-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	15	34	
	27-21/W1D-ANPHY/3C*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.90	3.15	28.5	40	140



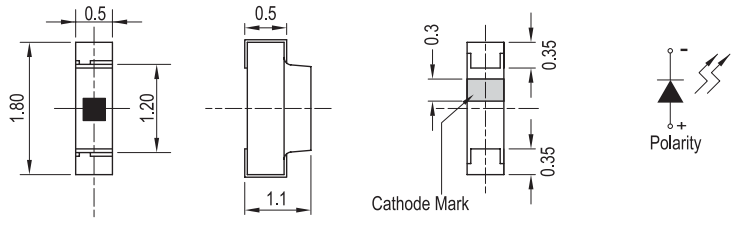
1.8mm Round Subminiature Chip LEDs

 										
	42-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	89	112	30
	42-21/BHC-AUW/1T	InGaN	Blue	470		3.5	4.0	450	1000	
	42-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	230	460	
	42-21UYC/S530-A3/TR8	AlGaInP	Super Yellow	589		2.0	2.4	240	480	
	42-21SURC/S530-A3/TR8	AlGaInP	Hyper Red	624		2.0	2.4	240	480	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Chip LED With Right Angle Lens


UNIT: mm

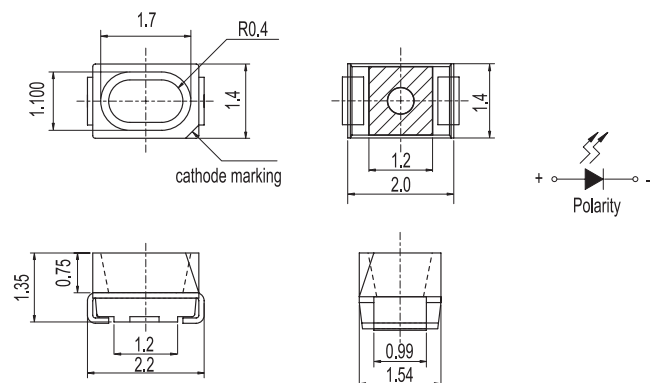
  RoHS * I _F at 5mA									
	48-21/W1D-ANPHY/3C*	InGaN	White	x 0.29 y 0.30	Yellow Diff.	2.9	3.15	28.5	40

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = 20mA		
							Min.	Typ.	

Mini Top View LED

UNIT: mm




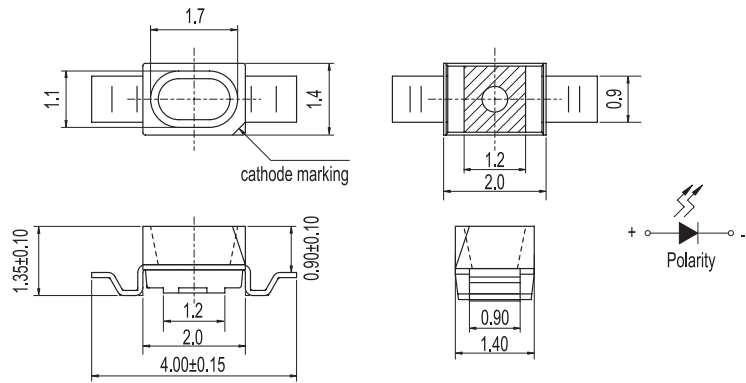


Pb RoHS

65-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	14.5	20	120
65-21UYC/S530-A4/TR8	AlGaInP	Super Yellow	589		2.0	2.4	57	70	

Mini Top View LED (Reverse Gull wing)





Pb RoHS

65-21SYGC/S530-E2/TR10-1	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	14.5	20	120
65-21UYC/S530-A4/TR10-1	AlGaInP	Super Yellow	589		2.0	2.4	57	70	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = 20mA		
							Min.	Typ.	

Top View LED

UNIT: mm

	67-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	35	55	120
	67-21SUBC/S400-A4/TR8	InGaN	Blue	470		3.5	4.3	42.5	48	
	67-21SUGC/S400-A4/TR8	InGaN	Super Green	525		3.5	4.3	150	279	
	67-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	25	37	
	67-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	40	55	
	67-21UYOC/S530-A2/TR8	AlGaInP	Super Yellow Orange	605		2.0	2.4	40	55	
	67-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	40	55	
	67-11UWC/S400-X8/TR8	InGaN	White	x 0.29 y 0.30		3.5	4.3	500	750	

Reverse Package Top View LED

	67-21UBC/C430/TR10	GaN/SiC	Blue	466	Water Clear	3.8	4.5	35	55	120
	67-21SUBC/S400-A4/TR10	InGaN	Blue	470		3.5	4.3	42.5	48	
	67-21SUGC/S400-A4/TR10	InGaN	Super Green	525		3.5	4.3	150	279	
	67-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	573		2.0	2.4	25	37	
	67-21UYC/S530-A2/TR10	AlGaInP	Super Yellow	589		2.0	2.4	40	55	
	67-21UYOC/S530-A2/TR10	AlGaInP	Super Yellow Orange	605		2.0	2.4	40	55	
	67-21SURC/S530-A2/TR10	AlGaInP	Hyper Red	624		2.0	2.4	40	55	
	67-11UWC/S400-X8/TR10	InGaN	White	x 0.29 y 0.30		3.5	4.3	500	750	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = 20mA		
							Min.	Typ.	

Power Top View LED

UNIT: mm

<p>Pb RoHS Preliminary</p>										
	67-21BUYC/S530-A3/TR8	AlGaInP	Super Yellow	589	Water Clear	2.0	2.4	250	400	60
	67-21BUSOC/S530-A3/TR8	AlGaInP	Super Sunset Orange	615		2.0	2.4	250	400	
	67-21BSURC/S530-A3/TR8	AlGaInP	Hyper Red	624		2.0	2.4	250	400	

High Performance SMD LED with Reflector

<p>Pb RoHS</p>										
	93-21UBC/C430/TR8	GaN/SiC	Blue	466	Water Clear	3.8	4.5	18	35	130
	93-21SUBC/S400-A4/TR8	InGaN	Blue	470		3.5	4.3	50	68	
	93-21SUGC/S400-A4/TR8	InGaN	Super Green	525		3.5	4.3	160	250	
	93-21SYGC/S530-E2/TR8	AlGaInP	Super Yellow Green	571		2.1	2.4	16	26	
	93-21UYC/S530-A2/TR8	AlGaInP	Super Yellow	589		2.0	2.4	17	43	
	93-21UYOC/S530-A2/TR8	AlGaInP	Super Yellow Orange	605		2.0	2.4	17	43	
	93-21SURC/S530-A2/TR8	AlGaInP	Hyper Red	624		2.0	2.4	17	42	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Side View white LED (1.0mm Height)

UNIT: mm

	99-11UWC/710/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	750	810

Side View white LED (0.8mm Height)

	99-113UWC/710/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	750	810


Side View white LED (0.8mm Height)

	99-115UWC/710/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	750	810

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

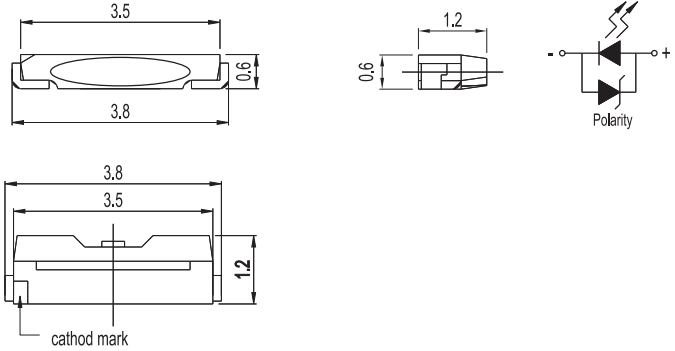
Side View white LED (0.6mm Height)

UNIT: mm



Pb

RoHS




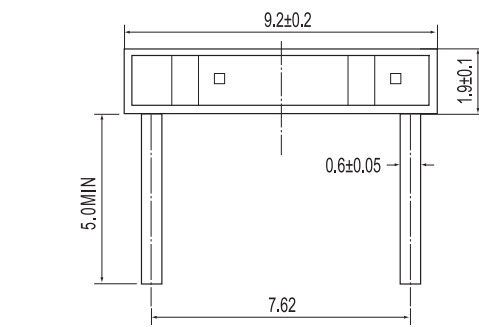
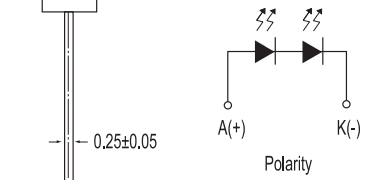
99-116UWC/710/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	750	810	110
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Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

High Performance with Reflector LED

UNIT: mm




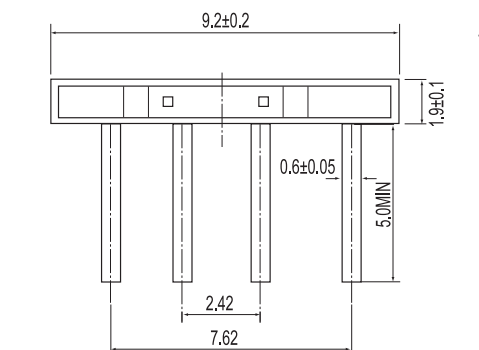
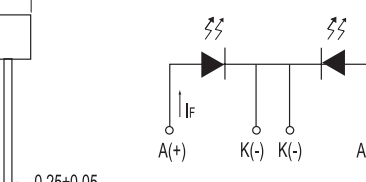





RoHS

94-22UBC/C430	GaN/SiC	Blue	466	Water Clear	7.6	9.0	35	65	130
94-22SUBC/S400-A4	InGaN	Blue	470		7.0	8.6	40	50	
94-22SUGC/S400-A4	InGaN	Super Green	525		7.0	8.6	200	240	
94-22SYGC/S530-E2	AlGaInP	Super Yellow Green	571		4.0	4.8	48	73	
94-22UYC/S530-A2	AlGaInP	Super Yellow	589		4.0	4.8	59	77	
94-22UYOC/S530-A2	AlGaInP	Super Yellow Orange	605		4.0	4.8	59	77	
94-22SURC/S530-A2	AlGaInP	Hyper Red	624		4.0	4.8	59	77	

High Performance with Reflector LED



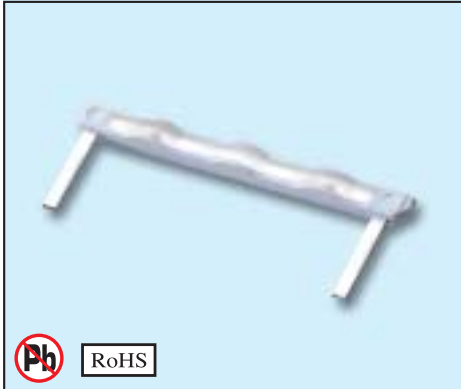

RoHS

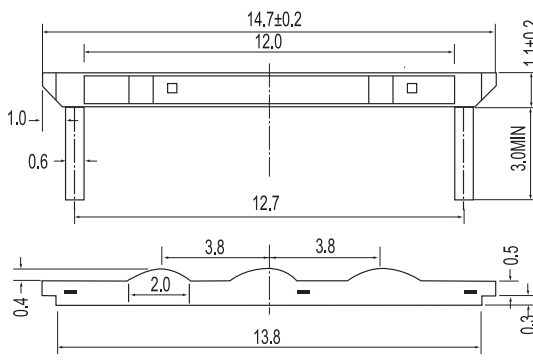
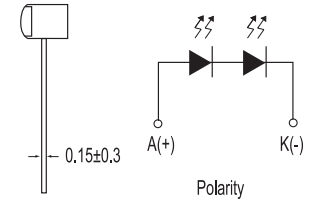
94-22UBC/C430/S2	GaN/SiC	Blue	466	Water Clear	3.8	4.5	35	65	130
94-22SUBC/S400-A4/S2	InGaN	Blue	470		3.5	4.3	40	50	
94-22SUGC/S400-A4/S2	InGaN	Super Green	525		3.5	4.3	200	240	
94-22SYGC/S530-E2/S2	AlGaInP	Super Yellow Green	571		2.0	2.4	48	73	
94-22UYC/S530-A2/S2	AlGaInP	Super Yellow	589		2.0	2.4	59	77	
94-22UYOC/S530-A2/S2	AlGaInP	Super Yellow Orange	605		2.0	2.4	59	77	
94-22SURC/S530-A2/S2	AlGaInP	Hyper Red	624		2.0	2.4	59	77	


Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

High Performance with Reflector LED

UNIT: mm

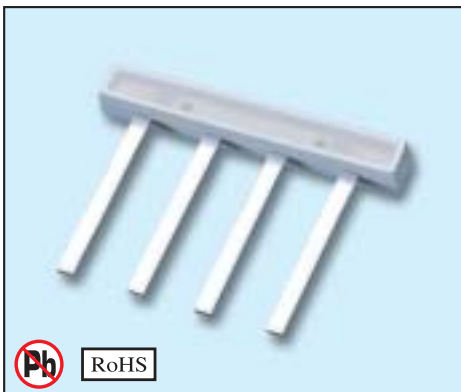


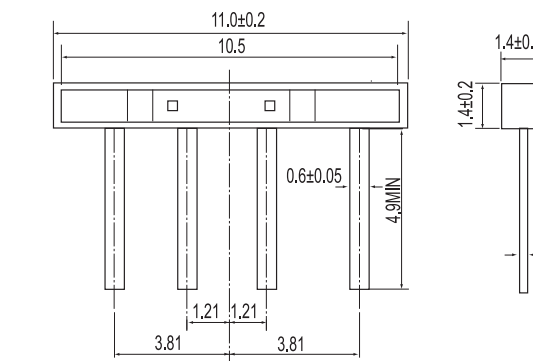
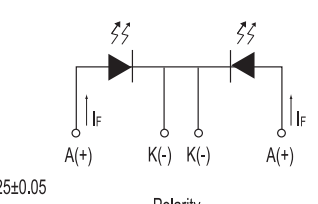





RoHS

96-22UBC/C430	GaN/SiC	Blue	466	Water Clear	7.6	9.0	16	20	145
96-22SUBC/S400-A4	InGaN	Blue	470		7.0	8.6	31	35	
96-22SUGC/S400-A4	InGaN	Super Green	525		7.0	8.6	120	140	
96-22SYGC/S530-E2	AlGaInP	Super Green	573		4.0	4.8	25	40	
96-22UYC/S530-A2	AlGaInP	Super Yellow	589		4.0	4.8	27	68	
96-22UYOC/S530-A2	AlGaInP	Super Yellow Orange	605		4.0	4.8	27	68	
96-22SURC/S530-A2	AlGaInP	Hyper Red	624		4.0	4.8	27	66	

High Performance with Reflector LED




RoHS

97-22UBC/C430/S2	GaN/SiC	Blue	466	Water Clear	3.8	4.5	19	24	145
97-22SUBC/S400-A4/S2	InGaN	Blue	470		3.5	4.3	63	100	
97-22SUGC/S400-A4/S2	InGaN	Super Green	525		3.5	4.3	250	400	
97-22SYGC/S530-E2/S2	AlGaInP	Super Yellow Green	573		2.0	2.4	20	35	
97-22UYC/S530-A2/S2	AlGaInP	Super Yellow	589		2.0	2.4	21	53	
97-22UYOC/S530-A2/S2	AlGaInP	Super Yellow Orange	605		2.0	2.4	21	53	
97-22SURC/S530-A2/S2	AlGaInP	Hyper Red	624		2.0	2.4	21	52	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Chip LED with Bi-Color (Multi-color)

UNIT: mm

	11-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	14	21
	AlGaInP	Hyper Red	624	2.0		2.4	21	51	

Right Angle Lens Chip LED with Bi-Color (Multi-color)

	12-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	13	19
	AlGaInP	Hyper Red	624	2.0		2.4	19	46	

Chip LED with Bi-Color (Multi-color)

	15-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	15	25
	AlGaInP	Hyper Red	624	2.0		2.4	15	40	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

0603 Package Chip LED with Bi-Color (Multi-Color)

UNIT: mm

	18-225SURSYGC/S530-A4/E4/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	29	34
	AlGaInP	Hyper Red	624	2.0		2.4	51	76	

0603 Package Chip LED with Bi-Color (Multi-Color)

	19-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	9	14
	AlGaInP	Hyper Red	624	2.0		2.4	13	36	

Chip LED with Bi-Color(Multi-Color)

	19-223SURSYGC/S530-A3/E3/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	21	30
	AlGaInP	Hyper Red	624	2.0		2.4	37	55	

0.4mm Height Chip LED with Bi-Color (Multi-color)

	19-226 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	9	13
	AlGaInP	Hyper Red	624	2.0		2.4	22	35	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Reverse Package Chip LED (Multi-Color)

UNIT: mm

	23-22BUSRSYGC/S530-A5/E3/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	20	55
	AlGaInP	Super Red	631	2.0		2.4	40	75	

Top View LED With Bi-Color (Multi-color)

	67-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	16	24
	AlGaInP	Hyper Red	624	2.0		2.4	24	59	



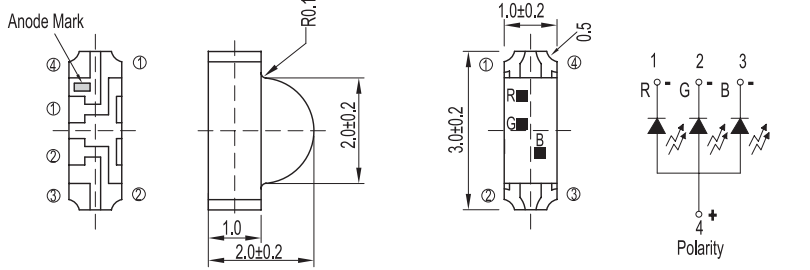
High Performance SMD LED with Reflector

	93-22 SURSYGC/S530-A2/TR8	AlGaInP	Super Yellow Green	573	Water Clear	2.0	2.4	11	17
	AlGaInP	Hyper Red	624	2.0		2.4	17	41	



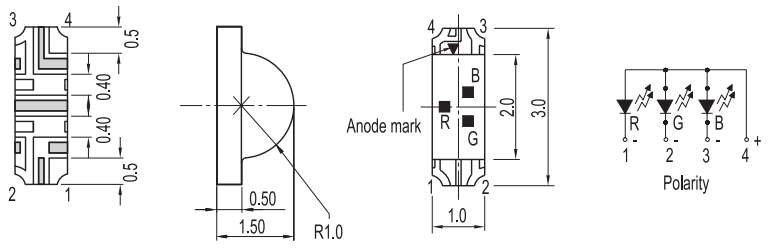
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Right Angle lens Chip LED with full color



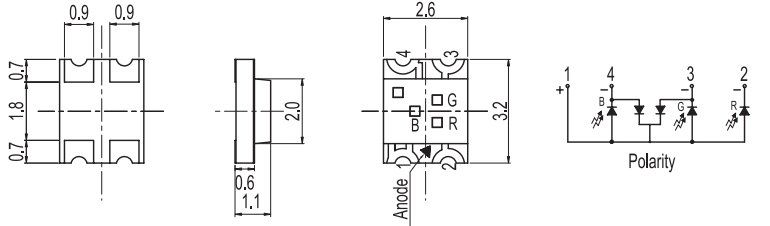
UNIT: mm

  RoHS									
	12-23A/R6GHBHC-A01/2D	InGaN	Blue	470	Water Clear	3.5	4.3	25	40
	InGaN	Brilliant Green	525	3.5		4.3	125	160	
	AlGaInP	Brilliant Red	624	2.0		2.4	50	80	

Right Angle Lens Chip LED with Full Color

  RoHS									
	12-23C/R6GHBHC-A01/2C	InGaN	Blue	470	Water Clear	3.3	3.9	32	50
	InGaN	Brilliant Green	525	3.3		3.9	125	180	
	AlGaInP	Brilliant Red	624	2.0		2.4	63	90	
12-23C/S2GHBHC-A01/2C	InGaN	Blue	470	3.3		3.9	45	72	
	InGaN	Brilliant Green	525	3.3		3.9	112	180	
	AlGaInP	Brilliant Orange	605	2.0		2.4	72	112	



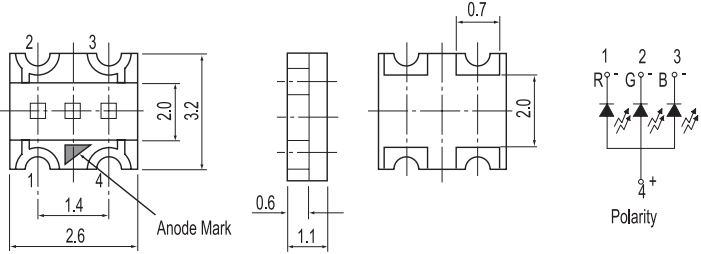
Right Angle Lens Chip LED with Full Color

  RoHS									
	15-13D/R6GHBHC-A01/2T	InGaN	Blue	470	Water Clear	3.3	3.9	32	50
	InGaN	Brilliant Green	525	3.3		3.9	125	180	
	AlGaInP	Brilliant Red	624	2.0		2.4	63	90	



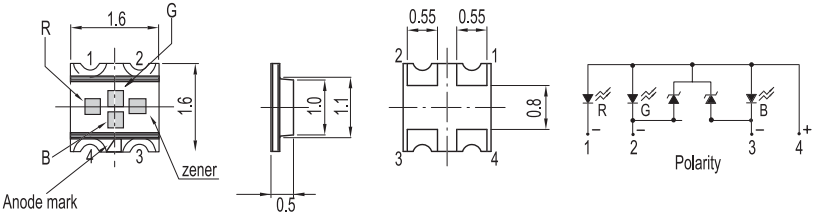
Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd)		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	at I _F = 20mA		
							Min.	Typ.	

Chip LED with Full Color



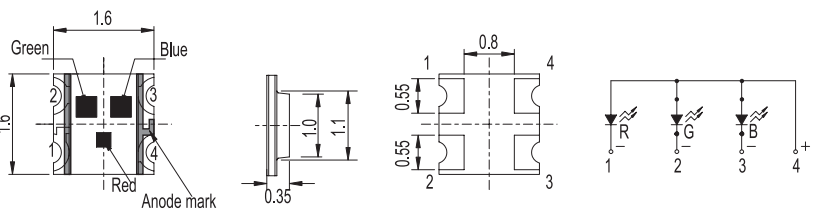
UNIT: mm

  RoHS										
	15-23B SURSYGUBC/S530-A2/TR8	GaN/SiC	Blue	470	Water Clear	3.8	4.5	9	15	120
		AlGaInP	Yellow Green	573		2.0	2.4	11	17	
		AlGaInP	Hyper Red	624		2.0	2.4	17	40	

0.5mm Height Chip LED with Full color

  RoHS										
	19-137/R6GHBHC-A01/TR8	InGaN	Blue	470	Water Clear	3.3	3.7	28.5	50	120
		InGaN	Super Green	525		3.3	3.7	112	180	
		AlGaInP	Brilliant Red	624		2.0	2.4	72	100	


0.35mm Height Chip LED with Full Color

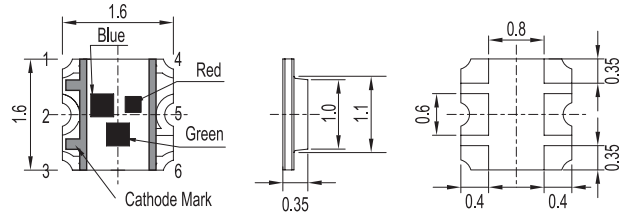
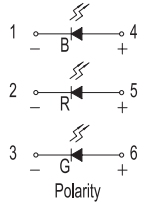
  RoHS										
	19-237/R6GHBHC-A01/2T	InGaN	Blue	470	Water Clear	3.3	3.9	28.5	50	120
		InGaN	Brilliant Green	525		3.3	3.9	112	180	
		AlGaInP	Brilliant Red	624		2.0	2.4	72	100	
	19-237/S2GHBHC-A01/2T	InGaN	Blue	470	Water Clear	3.3	3.9	28.5	50	120
		InGaN	Brilliant Green	525		3.3	3.9	112	180	
		AlGaInP	Brilliant Orange	605		2.0	2.4	72	100	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

0.35mm Height Chip LED with Full Color

UNIT: mm




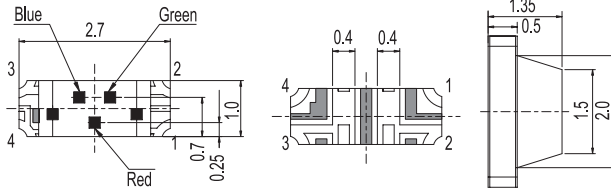
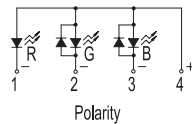



Pb RoHS

19-337/R6GHBHC-A01/2T	InGaN	Blue	470	Water Clear	3.3	3.9	28.5	50	120
	InGaN	Brilliant Green	525		3.3	3.9	112	180	
	AlGaInP	Brilliant Red	624		2.0	2.4	72	100	
19-337/S2GHBHC-A01/2T	InGaN	Blue	470		3.3	3.9	28.5	50	
	InGaN	Brilliant Green	525		3.3	3.9	112	180	
	AlGaInP	Brilliant Orange	605		2.0	2.4	72	100	

Right Angle Lens Chip LED with Full Color

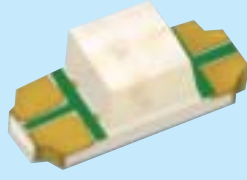


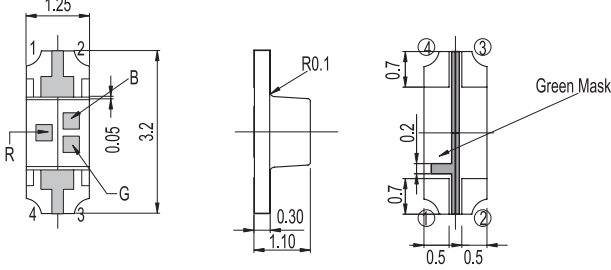
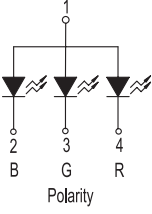



Pb RoHS

22-23/R6GHBHC-A01/2C	InGaN	Supe Blue	470	Water Clear	3.3	3.9	28.5	45	120
	InGaN	Brilliant Green	525		3.3	3.9	112	180	
	AlGaInP	Hyper Red	624		2.0	2.4	45	72	

Reverse Package Chip LED with Full Color




Pb RoHS

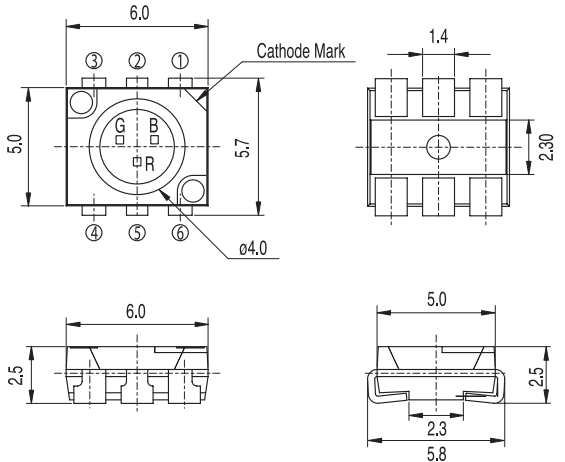
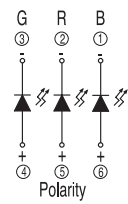
23-23B/R6GHBHC-A01/2A	InGaN	Supe Blue	470	Water Clear	3.3	3.7	28.5	45	130
	InGaN	Brilliant Green	525		3.3	3.7	112	180	
	AlGaInP	Hyper Red	624		2.0	2.4	36	57	

Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Luminosity full color LED


UNIT: mm

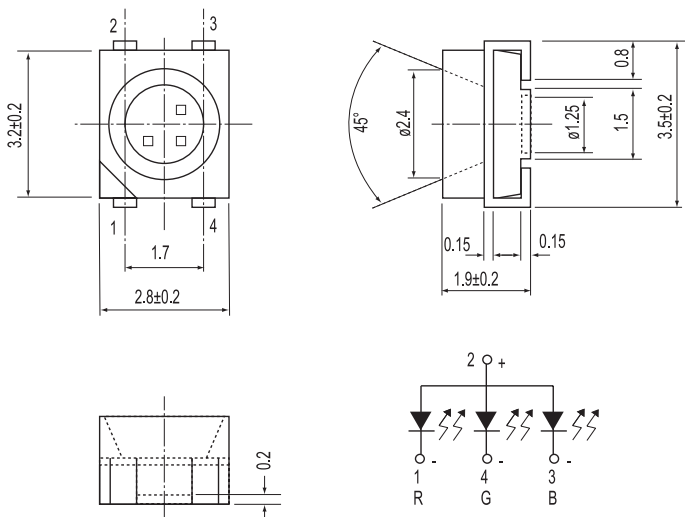
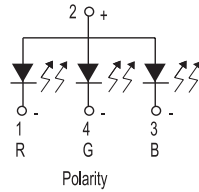


61-23/R6GHBHC-A01/ET	InGaN	Blue	470	Water Clear	3.5	4.0	112	200	120
	InGaN	Brilliant Green	525		3.5	4.0	225	280	
	AlGaInP	Brilliant Red	624		2.0	2.4	90	150	

Full Color Top View LED







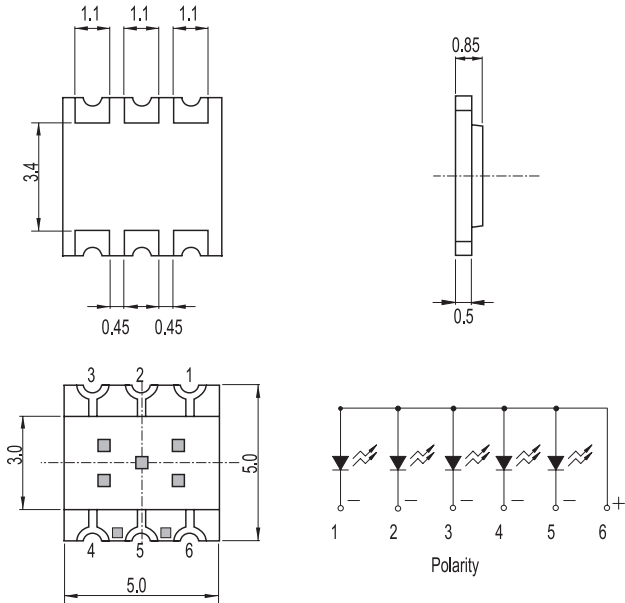
67-23 SDRSUGSUBC/TR8	GaN/SiC	Super Blue	470	Water Clear	3.5	4.3	32	57	120
	GaN/SiC	Super Green	525		3.5	4.3	125	216	
	AlGaInP	Super Deep Red	639		2.0	2.4	63	112	


Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Luminosity White Color LED

UNIT: mm

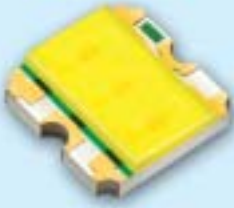


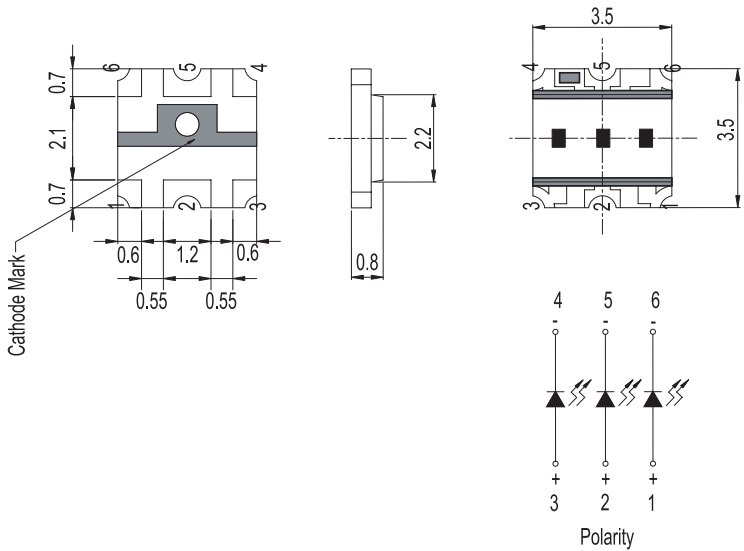




RoHS

40-25 AUWD/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.3	3.7	1800	2500	130
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Luminosity White Color LED





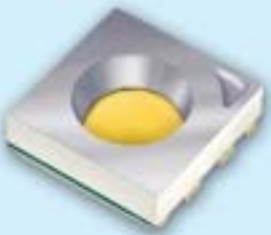

RoHS

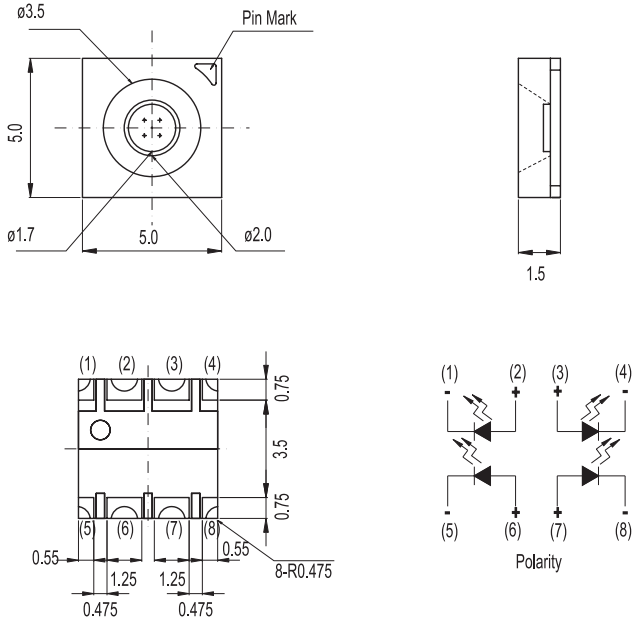
47-23 UWD/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.3	3.8	1500	2000	130
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Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Luminosity White Color LED


UNIT: mm

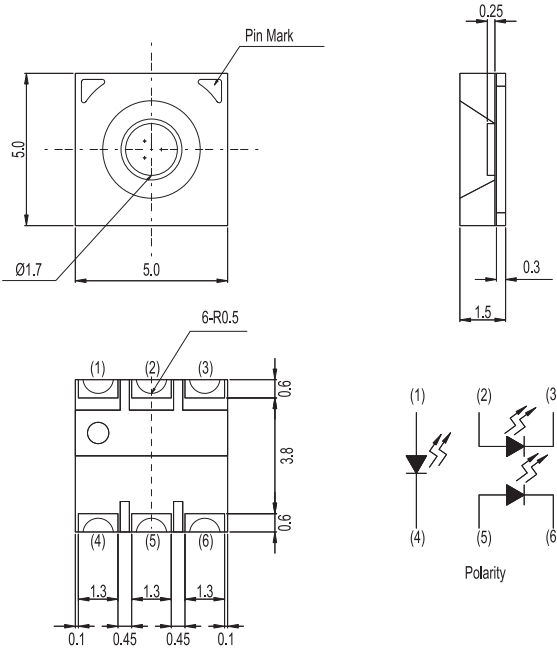





 RoHS	59-14 UWD/TR8	InGaN	White	x 0.29 y 0.30	Yellow Diff.	3.3	3.8	5000	8500	60
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Luminosity White Color LED





 RoHS	59-23 UWD/TR8	InGaN	White	x 0.29 y 0.30	Yellow Diff.	3.3	3.8	3000	5000	60
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Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Luminosity White Color LED

UNIT: mm

Pb RoHS

61-25 UWC/S400-A6/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	1500	2000	120
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Luminosity White Color LED

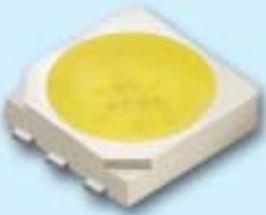


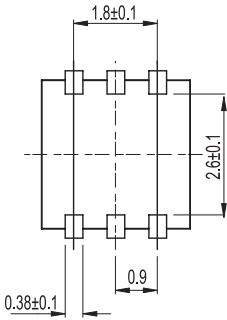
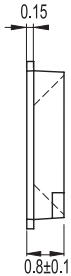
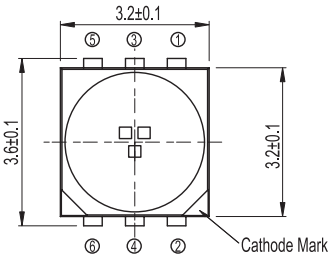
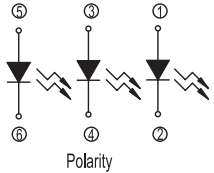
Pb RoHS

67-23 UWC/S400-X9/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	1045	1500	120
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Part Number EL-xxxx	Chip			Lens Color	V _F (V) at I _F = 20mA		I _v (mcd) at I _F = 20mA		Viewing Angle 2θ 1/2
	Material	Emitted Color	λ _D (nm)		Typ.	Max.	Min.	Typ.	

Luminosity White Color LED

UNIT: mm

  									
	67-235 UWC/TR8	InGaN	White	x 0.29 y 0.30	Water Clear	3.5	4.0	2000	2500