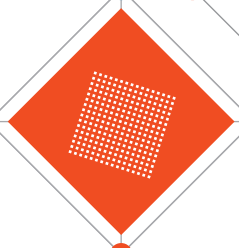
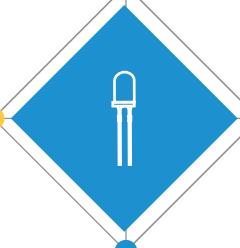





SANDER

BUILDING A BRIGHTER WORLD
ONE DIODE AT A TIME



SANDER CATALOG

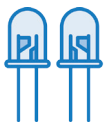
	Company Profile01
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	● LED Lamp	
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WE ARE SANDER ELECTRONIC

Lighting up the world one diode at a time.

Sander Diodes have been lighting up the world's most iconic displays and industrial applications for nearly 30 years. With billions of diodes installed in the world's most recognizable LED displays, Sander has been the trusted source for high-brightness diodes and LED modules for decades. Utilizing the latest in materials and process technologies, our visible light emitting diodes produces a long-lasting and stable luminous intensity with consistent color quality and high reliability.



A long history of excellence as an OEM supplier



Custom electronic design and engineering support



Our name may not be famous, but our products are world famous

WHAT MAKES SANDER GREAT



Advanced optical grade epoxy & silicon encapsulation

- Ensure that Sander diodes are thermally, mechanically, and chemically stable for the long haul
- Optimized to prevent stress fractures, embedment stress and oxidation effects that leads to diode failure
- Ensure high moisture resistance preventing premature yellowing and degradation of light output



Unsurpassed color matching technology

- Provides color-matched display-quality diodes built to withstand the harsh weather conditions and environment (required by large-format video displays)
- Allows our engineers to match color, brightness and viewing angle to any existing diode sample to within +/- 2% accuracy



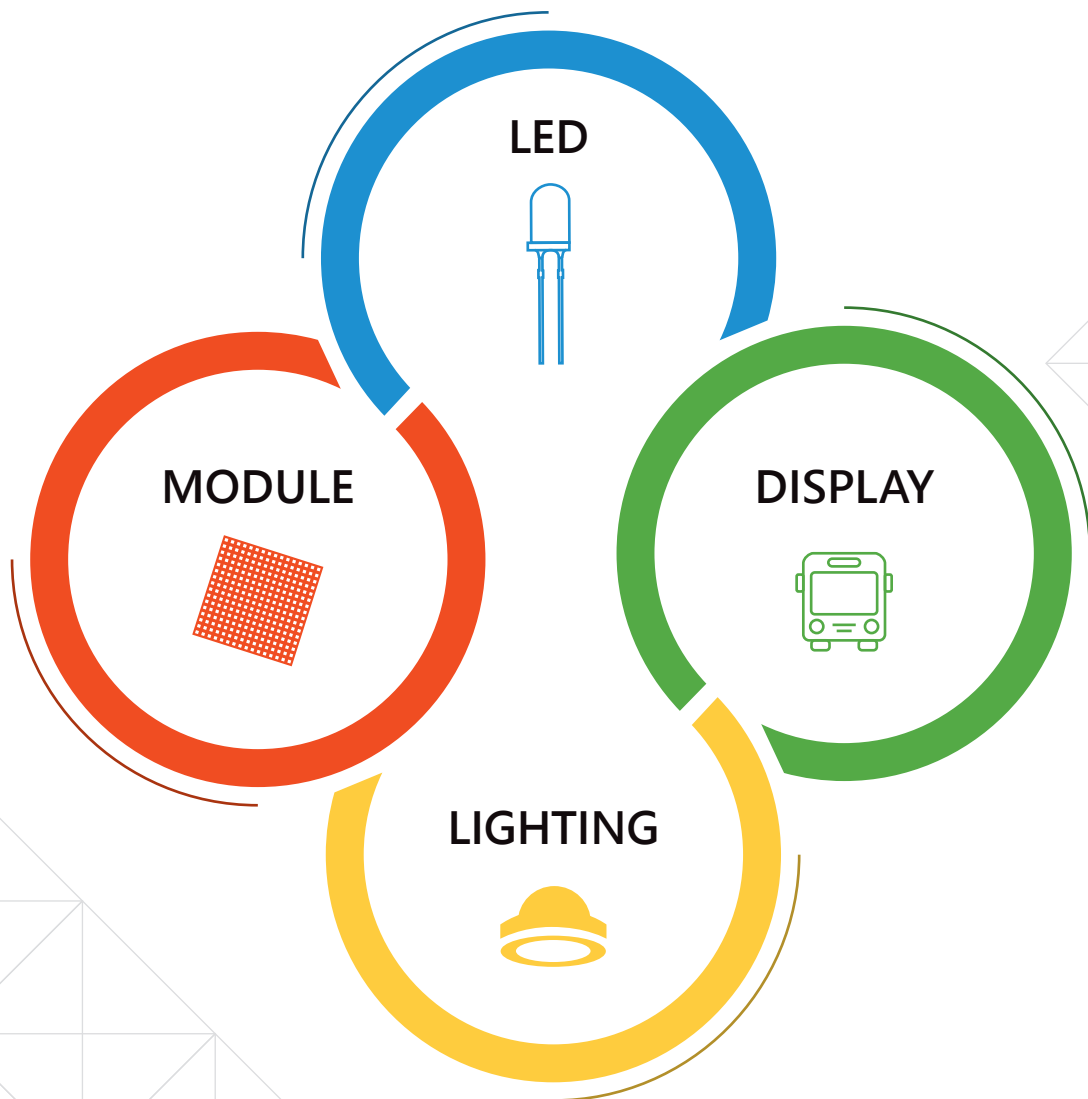
Exceeding rigorous standards of the transportation industry

- Used in a wide variety of automotive and industrial transportation applications
- Have been lighting the way for travelers for decades, from brake lights and dashboard lights to subways light and airport pick up terminals

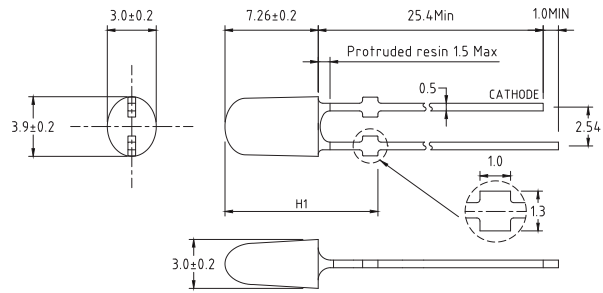


**PRODUCTION
LINE**

OUR PRODUCTS

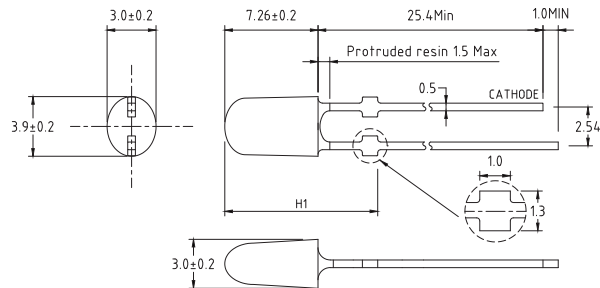
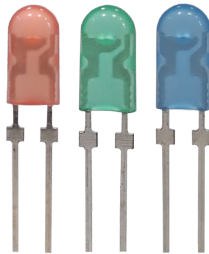


3mm



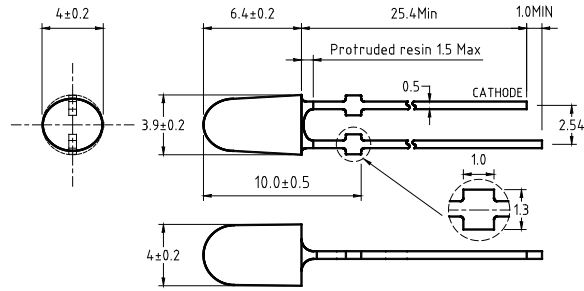
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-2K03EAXYLMA0-S	Yellow	Yellow Diffused	100	590	1150	2500	2.1	20

3mm



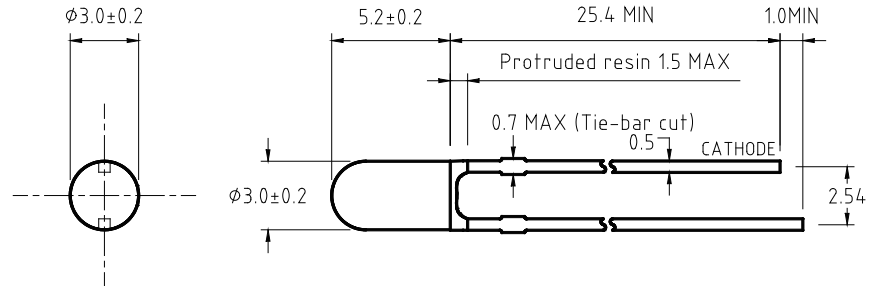
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-2K05E4APBM90-S	Pure Blue	Bluse Diffused	90	470	880	1900	3.1	20
SL-2K05E4APGM90-S	Green	Green Diffused	90	527	4200	9300	3.0	20
SL-2K05EASTRM90-S	True Red	Red Diffused	90	625	1150	2500	2.1	20

3mm



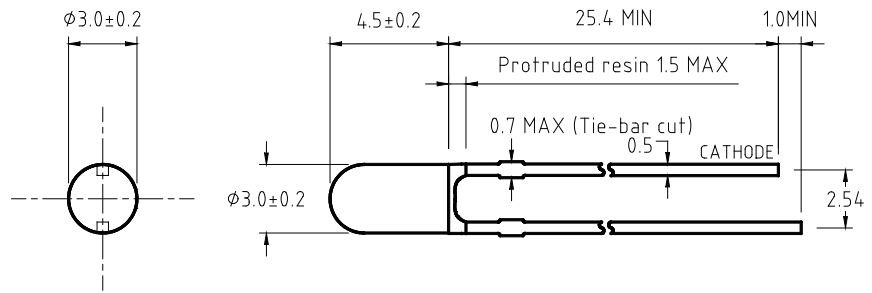
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-3K01ENJYLMD0-S	Yellow	Yellow Diffused	120	594	680	1900	2.1	20
SL-3K01ENSTRDA0-S	True Red	White Diffused	100	625	680	1900	2.1	20
SL-3K01ENSYLDA0-S	Yellow	White Diffused	100	590	680	1900	2.1	20

3mm



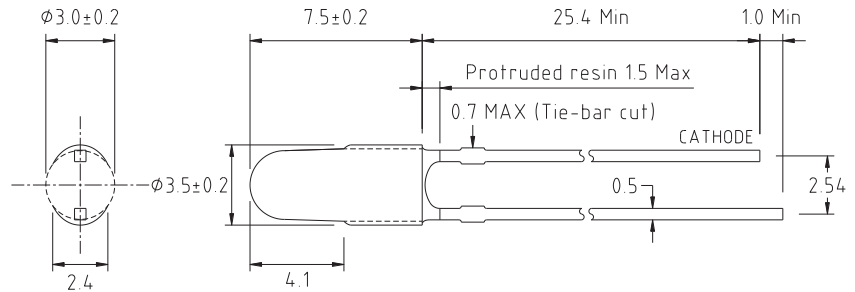
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-3M01EAXTRC30	True Red	Clear	30	625	5500	15700	2.2	20
SL-3M01EAXYLC30	Yellow	Clear	30	590	4200	12000	2.1	20
SL-3M01EAXYLC60	Yellow	Clear	60	590	3200	7200	2.1	20
SL-3M01ENJYLC60	Yellow	Clear	60	590	880	2500	2.1	20
SL-3M01EPNSRC60	Sunset Red	Clear	60	605	3200	7200	2.1	20
SL-3M01ESPPBC60	Pure Blue	Clear	60	470	1150	3200	3.2	20
SL-3M01ESPPGC60	Green	Clear	60	525	2500	7200	3.2	20

3mm



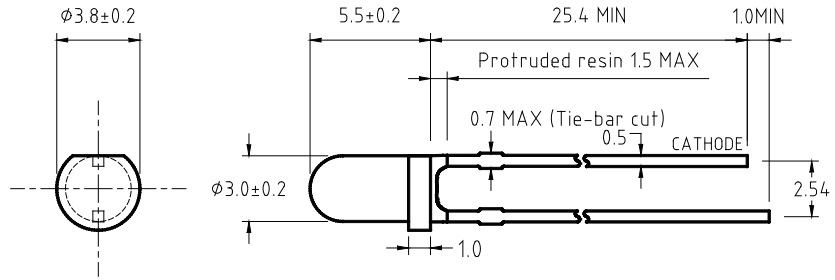
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-3M02ENJTRC30	True Red	Clear	30	625	880	2500	2.1	20

3mm



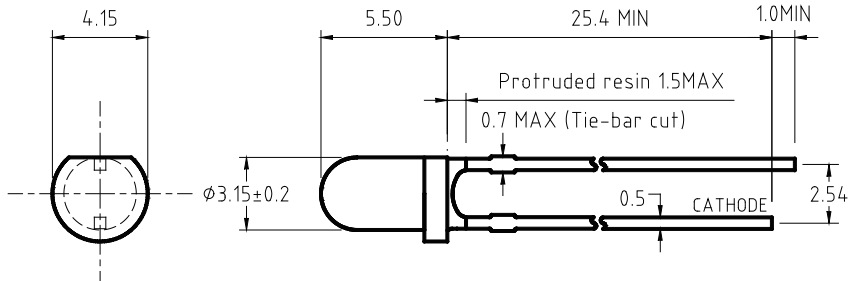
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SL-3M04E4APBM30	Pure Blue	Blue Diffused	30	470	1150	3200	3.1	20
SL-3M04E4APGM30-S	Green	Green Diffused	35	530	4200	12000	3.1	20
SL-3M04ENJTRM30	True Red	Red Diffused	35	625	1500	3200	2.0	20

3mm



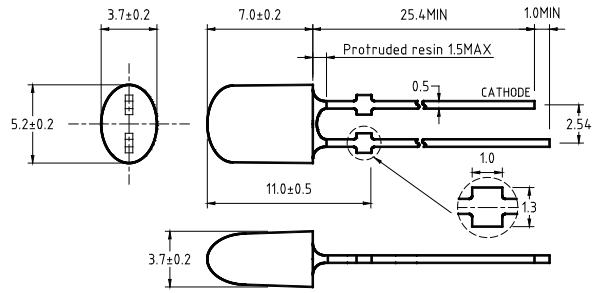
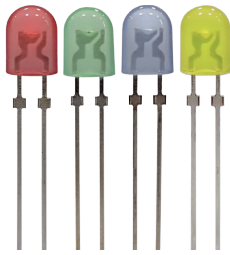
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-3N01E4APBC30	Pure Blue	Clear	30	470	2500	7200	3.2	20
SL-3N01E4APGC30	Green	Clear	30	525	12000	35500	3.2	20
SL-3N01EAXSRC30	Sunset Red	Clear	30	605	7200	21000	2.1	20
SL-3N01EAXTRC30	True Red	Clear	30	625	5500	15700	2.2	20
SL-3N01EAXYLC30	Yellow	Clear	30	590	4200	12000	2.1	20
SL-3N01K1PYGM45	Yellow Green	Green Diffused	50	570	10	-	2.1	20

3mm



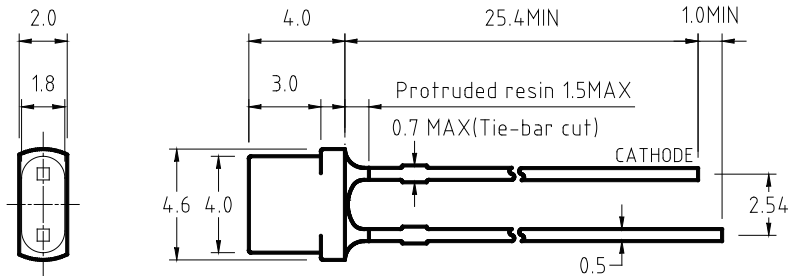
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-3N06EAXTRC40	True Red	Clear	40	625	4200	12000	2.1	20
SL-3N06EAXYLC40	Yellow	Clear	40	590	3200	9300	2.1	20
SL-3N06EAXYLD60	Yellow	White Diffused	60	590	1500	4200	2.1	20
SL-3N06ENJTRC40	True Red	Clear	40	625	1150	3200	2.1	20
SL-3N06ESPPBC40	Pure Blue	Clear	40	470	1900	3200	3.2	20
SL-3N06ESPPGC40	Green	Clear	40	525	5500	15700	3.2	20

3mm



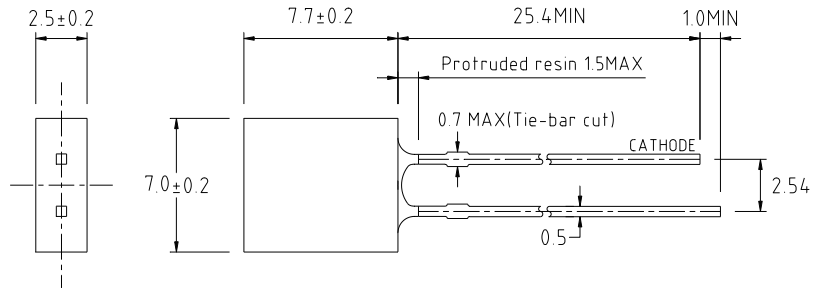
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-4K01EAXTRMB0-S	True Red	Red Diffused	110	625	1500	4200	2.1	20
SL-4K01EAXYLMA0-S	Yellow	Yellow Diffused	100	590	880	2500	2.1	20
SL-4K01ESPPBMB0-S	Pure Blue	Blue Diffused	110	470	400	1150	3.1	20
SL-4K01ESPPGMB0-S	Green	Green Diffused	110	525	1900	5500	3.1	20

3mm



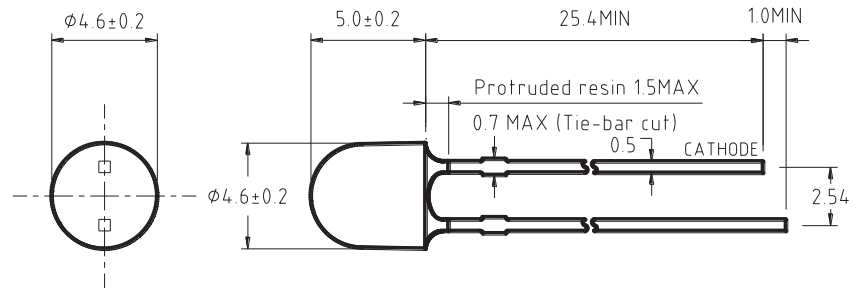
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-4G01EXPPBCE0	Pure Blue	Clear	140	470	140	400	3.2	20

3mm



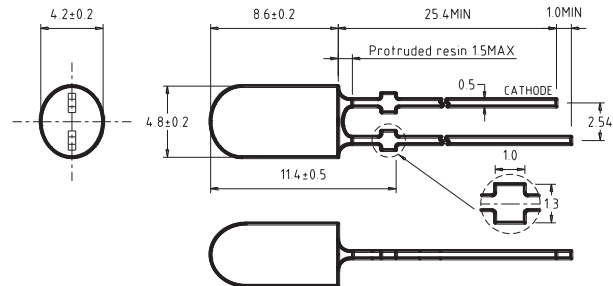
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SL-7G01AP5YLMG0	Yellow	Yellow Diffused	150	585	3	-	1.8	20

4mm



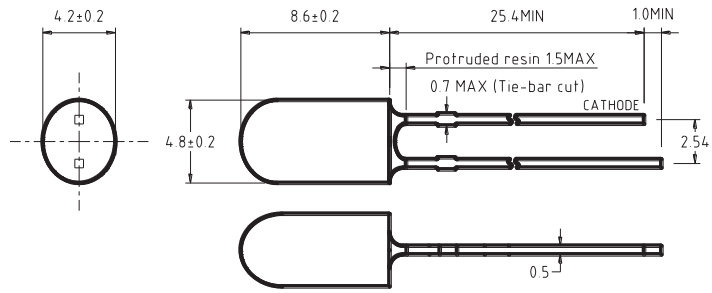
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-4N01EAXTRCA0	True Red	Clear	100	625	680	1900	2.1	20
SL-4N01EAXTRDB0	True Red	White Diffused	110	625	680	1900	2.1	20
SL-4N01EAXYLCA0	Yellow	Clear	100	590	680	1900	2.1	20
SL-4N01EAXYLDB0	Yellow	White Diffused	110	590	520	1500	2.1	20

4mm



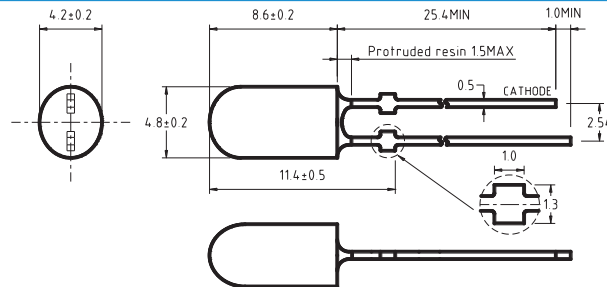
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5K01E4APBC50-S	Pure Blue	Clear	50	470	3200	9300	3.2	20
SL-5K01E4APGC50-S	Green	Clear	50	525	9300	27300	3.2	20
SL-5K01EASTRC40	True Red	Clear	40	625	5500	15700	2.1	20

4mm



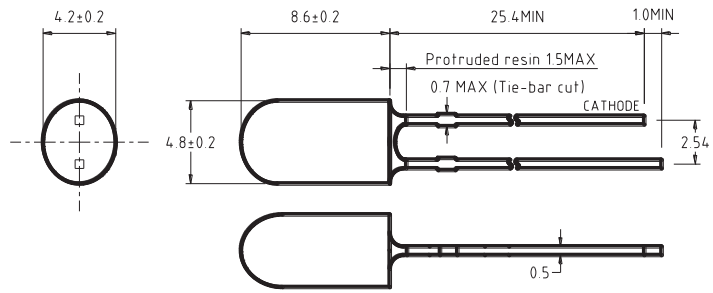
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SL-5K01EAXTRC50	True Red	Clear	50	625	5500	15700	2.1	20
SL-5K01EAXTRC50-S	True Red	Clear	50	625	5500	15700	2.1	20

4mm



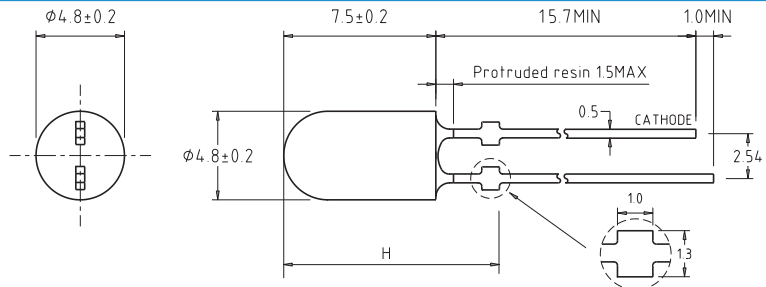
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SL-5K01ENJTRC50-S	True Red	Clear	50	625	3200	9300	2.1	20
SL-5K01ENJYLC50-S	Yellow	Clear	50	590	4200	12000	2.1	20

4mm



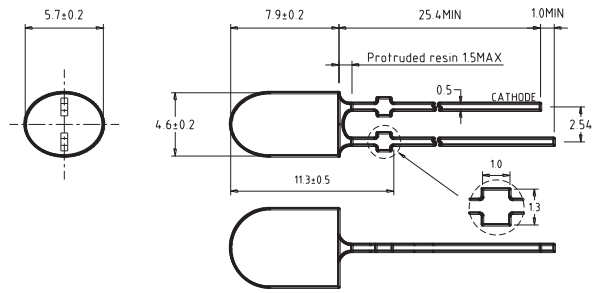
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5K01P4XBGC40	Bluish Green	Clear	40	505	4200	12000	3.2	20

4mm



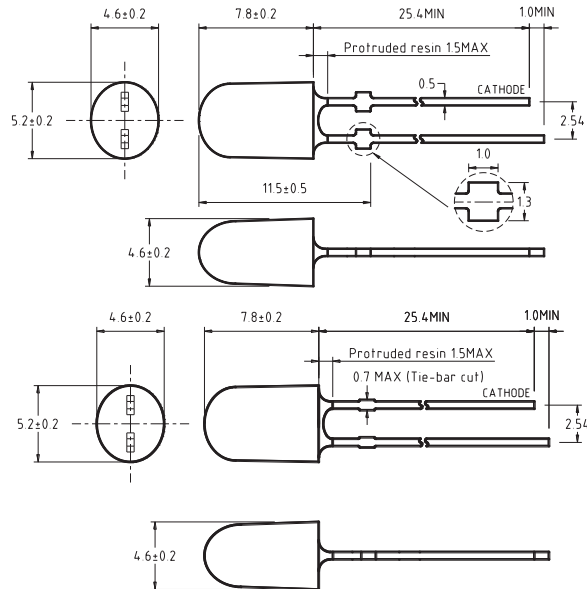
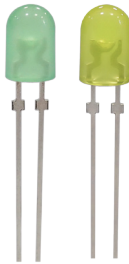
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5M05ENJTRD60-S	True Red	White Diffused	60	625	1150	-	2.1	20
SL-5M05ENJYLD60-S	Yellow	White Diffused	60	590	1150	3200	2.1	20

4mm

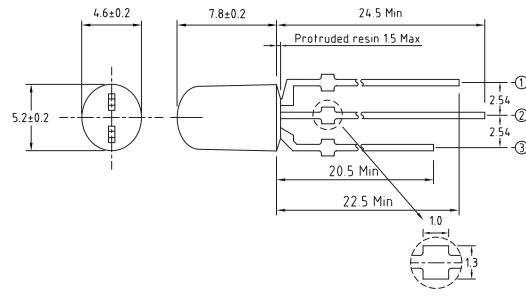


Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-6K01EAXTRC60-S	True Red	Clear	60	625	2500	7200	2.1	20
SL-6K01EAXYLC60-S	Yellow	Clear	60	590	3200	9300	2.1	20
SL-6K01ENJYLC60-S	Yellow	Clear	60	590	-	-	-	-

4mm



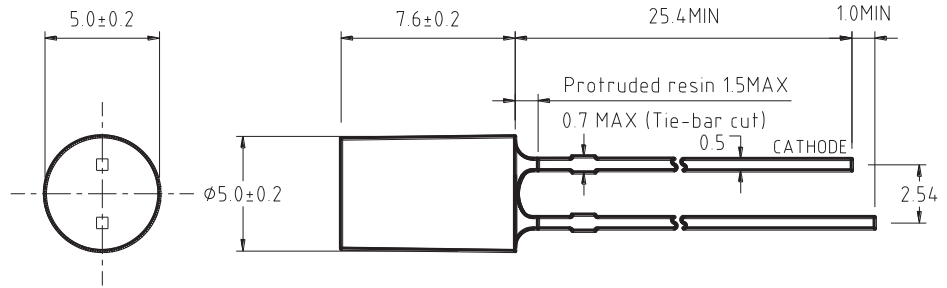
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-7K01E4APGM70-S	Green	Green Diffused	70	525	4200	9300	3.1	20
SL-7K01EAXTRM70	True Red	Red Diffused	70	625	2500	7200	2.1	20
SL-7K01EHSYLM70-S	Yellow	Yellow Diffused	70	590	2500	7200	2.1	20



Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-7K01ENJRGD90-S	Red & Green	White Diffused	90	R:625 G:525	R:1150 G:2500	R:2500 G:5500	R:2.0 G:3.2	20

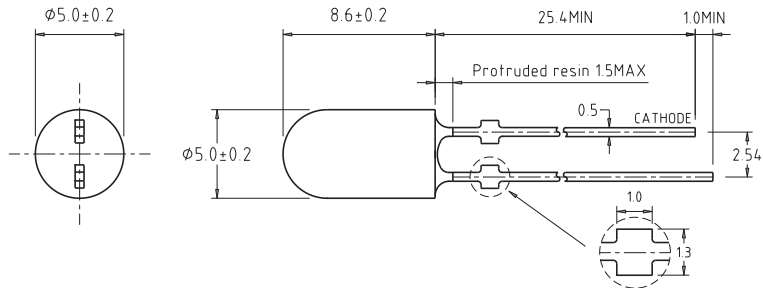
⌘ Please note that Part Number with -S at the end means product is with stand-off
 ⌘ Please request separately if you need the product without stand-off (Part number without -S)

5mm



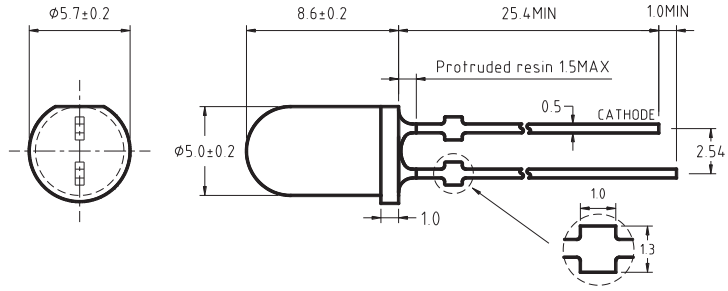
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5C01E4APBCC0	Pure Blue	Clear	120	470	-	600 (typ)	3.2	20
SL-5C01EANTRC80	True Red	Clear	100	625	520	1500	2.1	20
SL-5C01EAXTRC80	True Red	Clear	80	625	520	1500	2.0	20
SL-5C01ENJYLCD0	Yellow	Clear	130	590	180	520	2.1	20

5mm



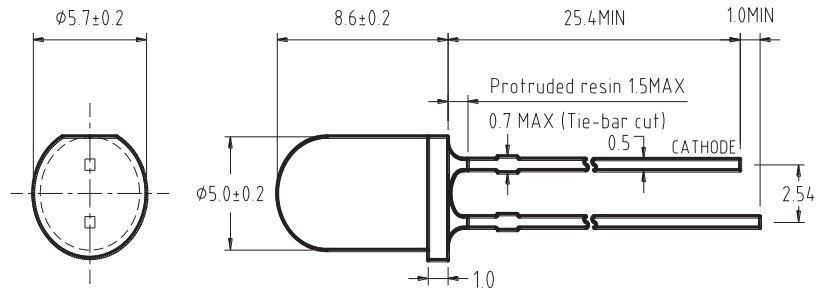
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5M01EAXTRC15-S	True Red	Clear	15	625	9300	27300	2.2	20
SL-5M01EAXYLC15-S	Yellow	Clear	15	590	15700	46100	2.2	20
SL-5M01ESPPBC30	Pure Blue	Clear	30	470	2500	7200	3.1	20
SL-5M01ESPPGC30-S	Green	Clear	30	525	9300	27300	3.2	20
SL-5M02EAXTRC30-S	True Red	Clear	30	625	7200	21000	2.1	20
SL-5M02EAXYLC30	Yellow	Clear	30	590	7200	21000	2.2	20
SL-5M02ENJTRC30-S	True Red	Clear	30	625	2500	7200	2.1	20
SL-5M02ENJYLC30	Yellow	Clear	30	590	2500	7200	2.1	20

5mm



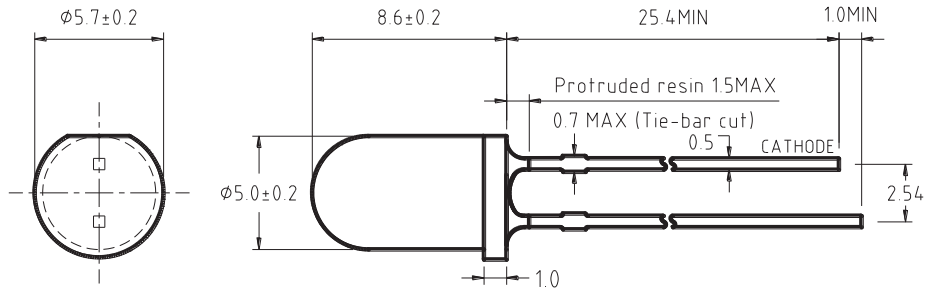
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N01E4APBC30-S	Pure Blue	Clear	30	470	3200	9300	3.2	20
SL-5N01E4APGC30-S	Green	Clear	30	525	12000	35500	2.9	20

5mm



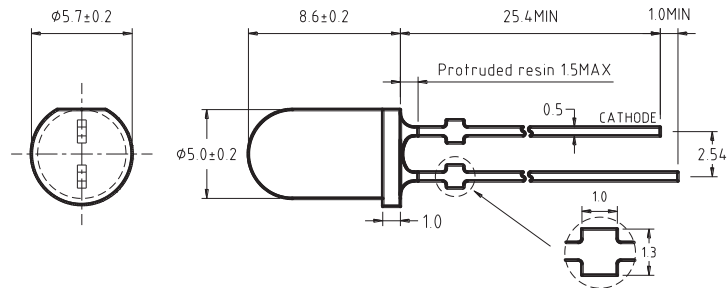
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N01ENJYLM30	Yellow	Yellow Diffused	30	590	1900	5200	2.1	20

5mm



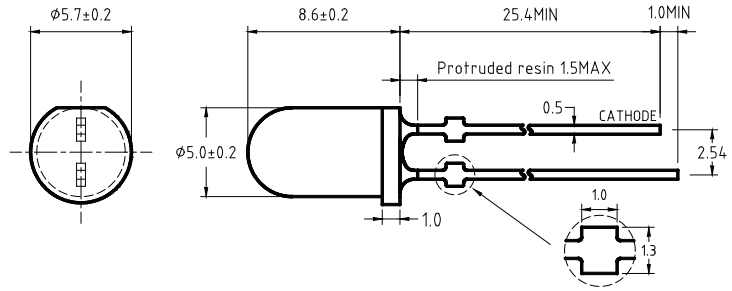
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N01ENSTRC30	True Red	Clear	30	625	3200	9300	2.1	20
SL-5N01ENSYLC30	Yellow	Clear	30	590	3200	9300	2.1	20

5mm



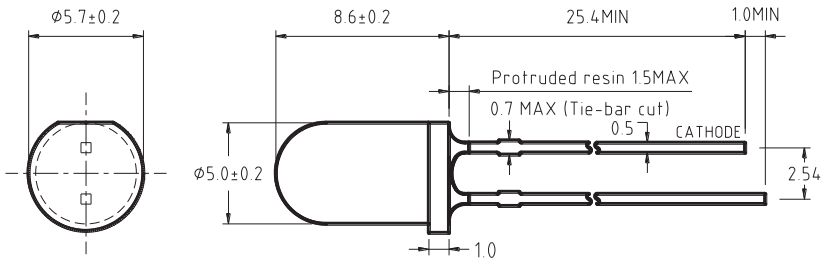
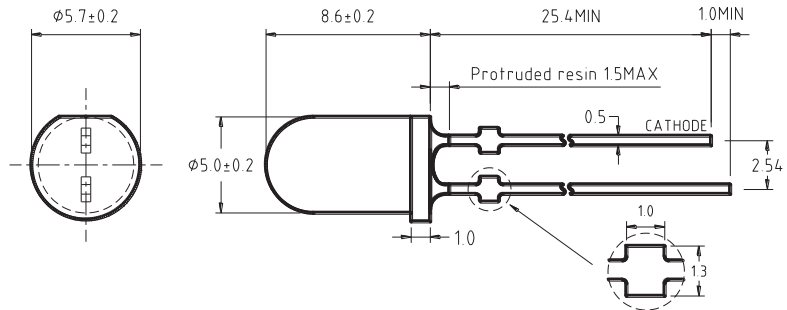
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N01P4XBGC30-S	Bluish Green	Clear	30	505	9300	27300	3.1	20

5mm



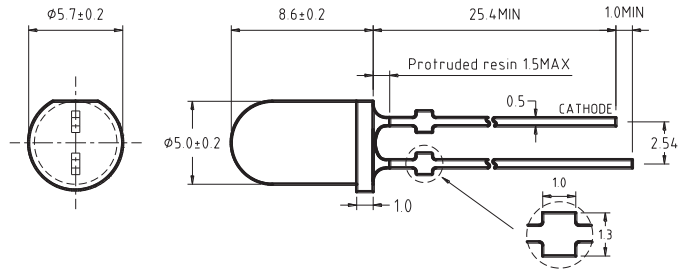
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02EAXSRT30-S	Sunset Red	Orange Transparent	30	605	7200	21000	2.1	20

5mm



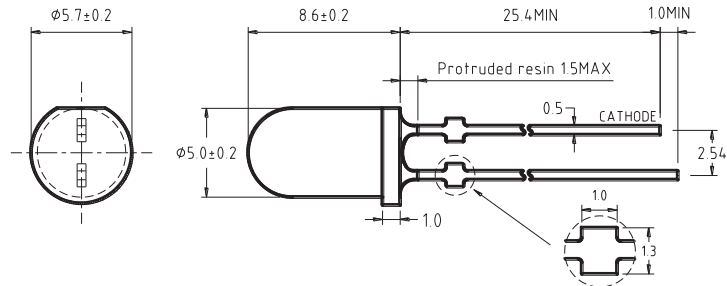
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02EAXTRC23	True Red	Clear	23	625	7200	21000	2.0	20
SL-5N02EAXTRC30-S	True Red	Clear	30	625	5500	15700	2.1	20
SL-5N02EAXTRM30-S	True Red	Red Diffused	30	625	4200	12000	2.1	20
SL-5N02EAXTRT30	True Red	Red Transparent	30	625	4200	12000	2.1	20

5mm



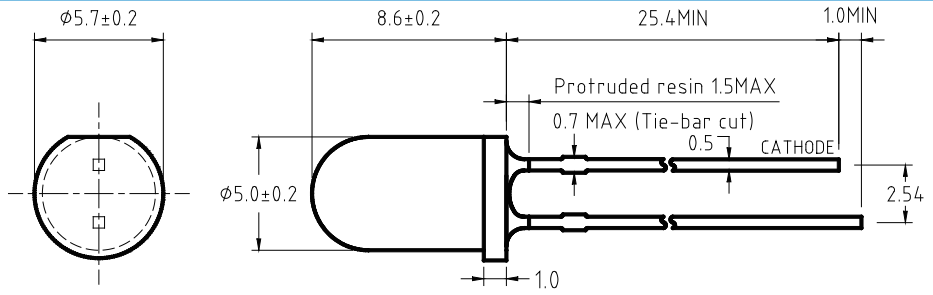
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02EAXYLC23-S	Yellow	Clear	23	590	7200	21000	2.1	20
SL-5N02EAXYLC30-S	Yellow	Clear	30	590	5500	15700	2.1	20
SL-5N02EAXYLT30-S	Yellow	Yellow Transparent	30	590	4200	12000	2.1	20

5mm



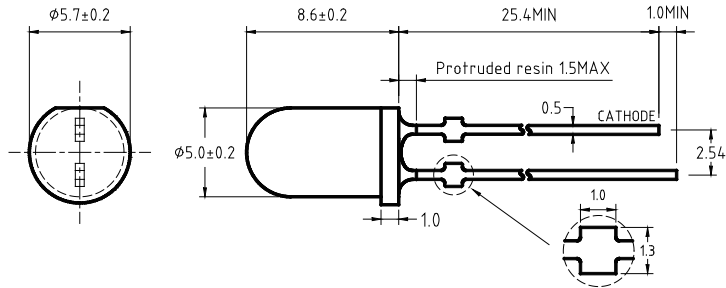
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02ENJTRC30-S	True Red	Clear	30	625	1500	4200	2.1	20
SL-5N02ENJYLC30-S	Yellow	Clear	30	590	2500	7200	2.1	20

5mm



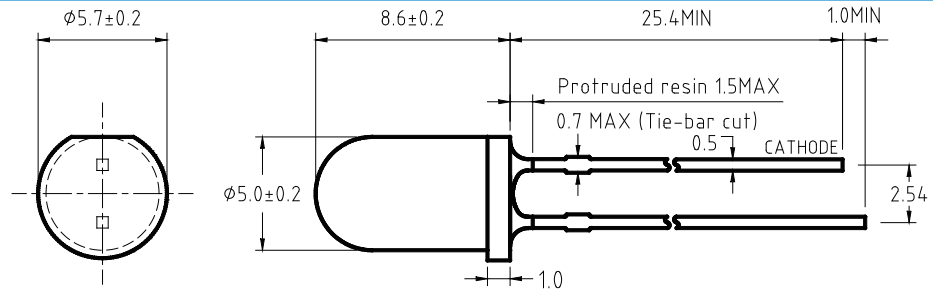
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02EPNSRT30	Sunset Red	Orange Transparent	30	605	4200	9300	2.1	20

5mm



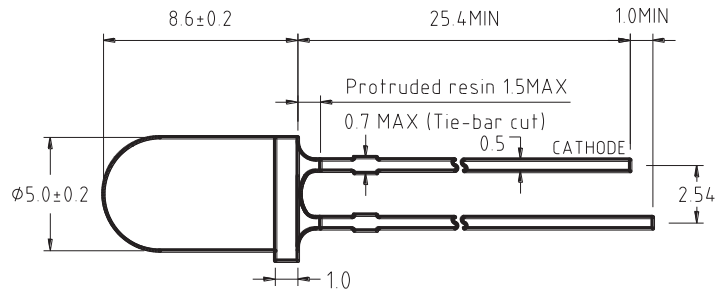
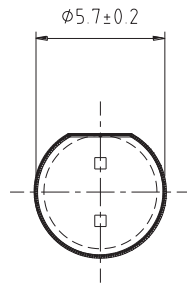
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02ESPPGC23-S	Green	Clear	23	525	9300	27300	3.1	20

5mm



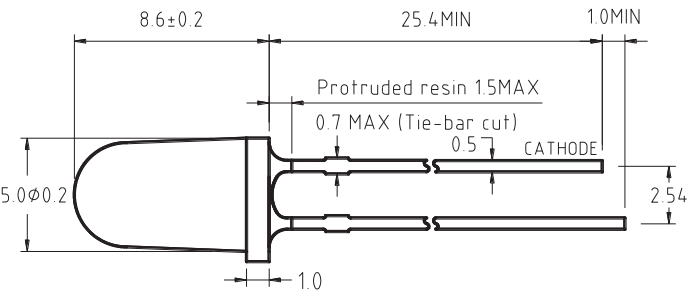
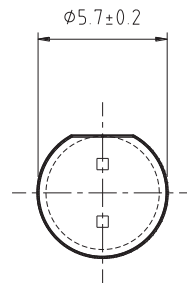
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02P4XBGD25	Bluish Green	White Diffused	25	505	5500	15700	3.1	20

5mm



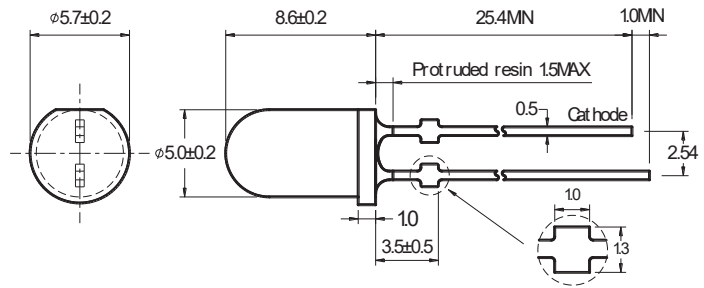
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N02TRHTRC30	True Red	Clear	30	640	880	2500	2.1	20

5mm



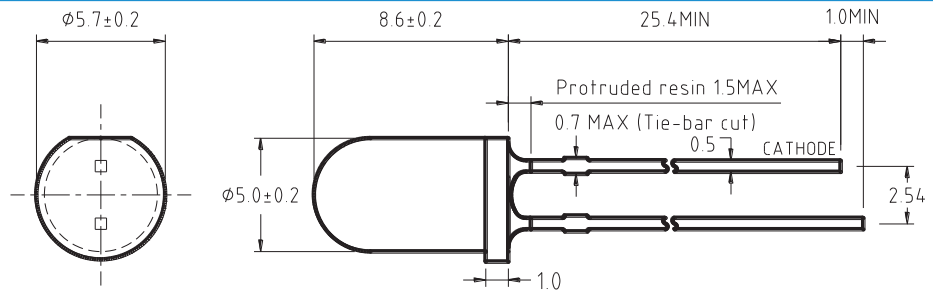
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N03E4APBC15	Pure Blue	Clear	15	470	5500	15700	2.9	20
SL-5N03E4APGC15	Green	Clear	15	525	27300	78000	2.9	20

5mm



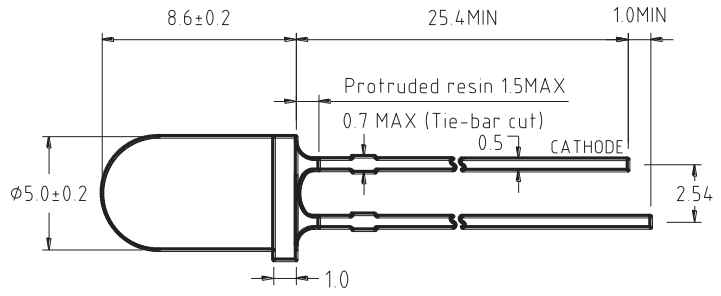
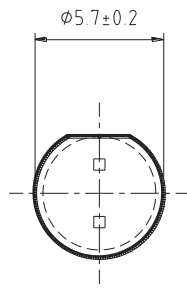
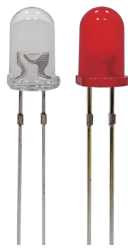
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N04EAXSRC15-S	Sunset Red	Clear	15	605	15700	46100	2.1	20
SL-5N04EAXTRC15	True Red	Clear	15	625	12000	35100	2.1	20

5mm



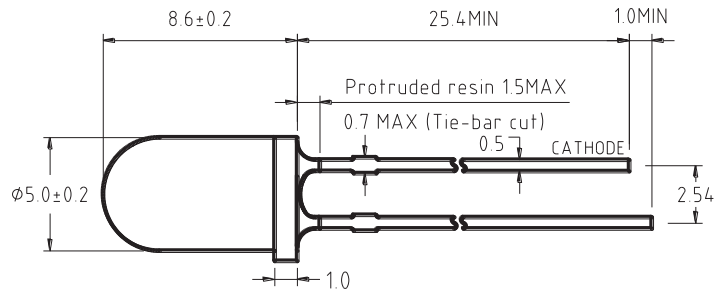
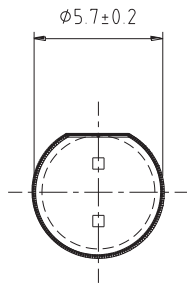
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N04ENJSRM30	Sunset Red	Orange Diffused	30	605	1500	4200	2.2	20

5mm



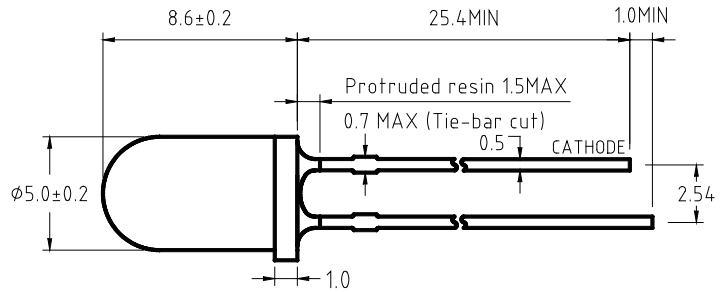
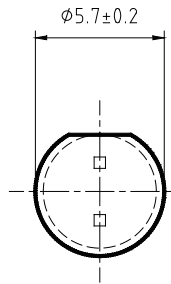
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N04ENJTRC15	True Red	Clear	15	625	4200	12000	2.1	20
SL-5N04ENJTRM20	True Red	Red Diffused	20	625	1500	4200	2.1	20
SL-5N04ENJTRM20-S	True Red	Red Diffused	20	625	1500	4200	2.1	20
SL-5N04ENJYLC15	Yellow	Clear	15	590	4200	12000	2.1	20

5mm



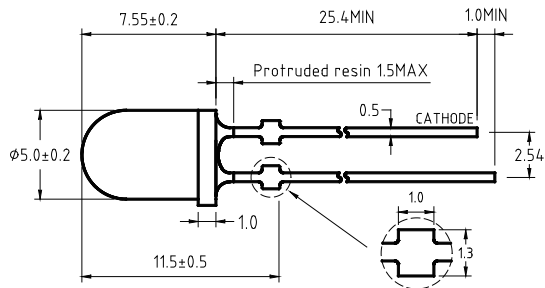
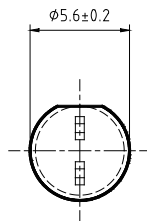
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N05EHSYLC23	Yellow	Clear	23	590	9300	27300	2.1	20

5mm



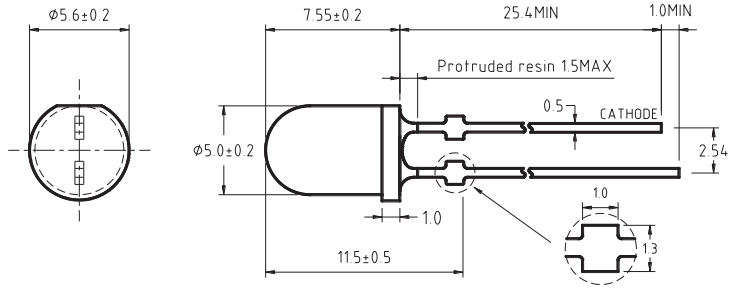
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N10EHSYLC30	Yellow	Clear	30	590	7200	15700	2.1	20

5mm



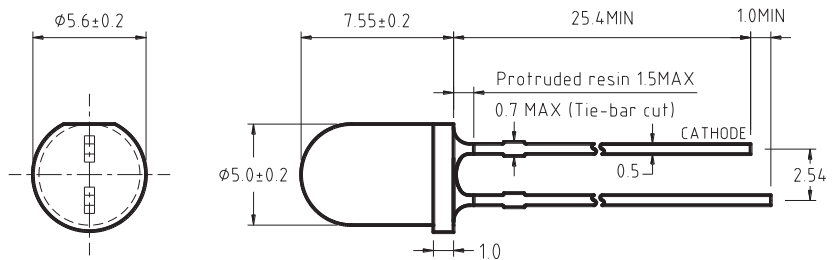
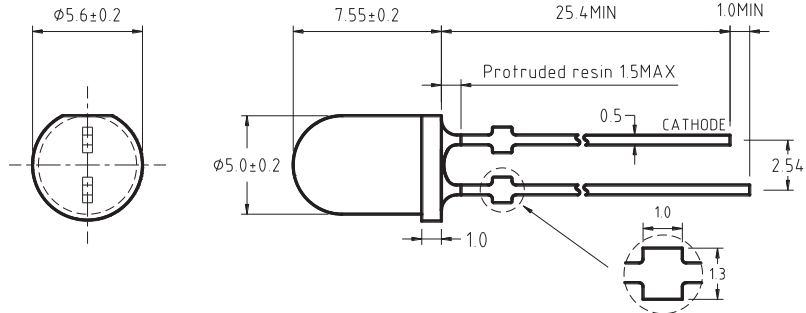
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N11EPNSRT45-S	Sunset Red	Orange Transparent	45	605	2500	7200	2.1	20

5mm

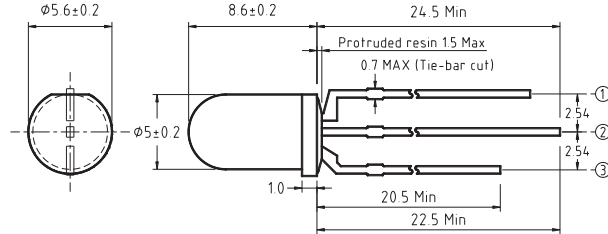
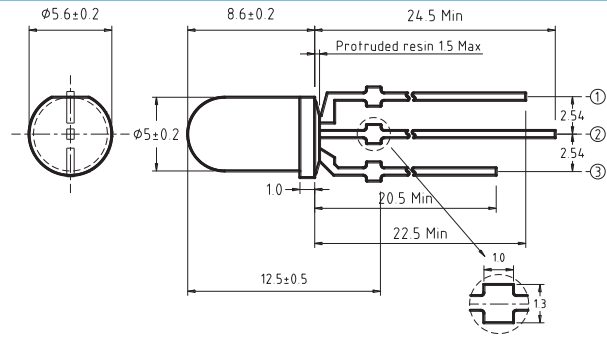


Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N11EAXTRC45-S	True Red	Clear	45	625	2500	7200	2.2	20
SL-5N11EAXYLC45-S	Yellow	Clear	45	590	2500	7200	2.1	20

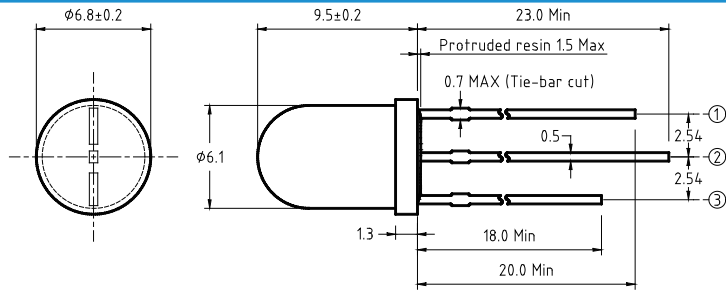
5mm



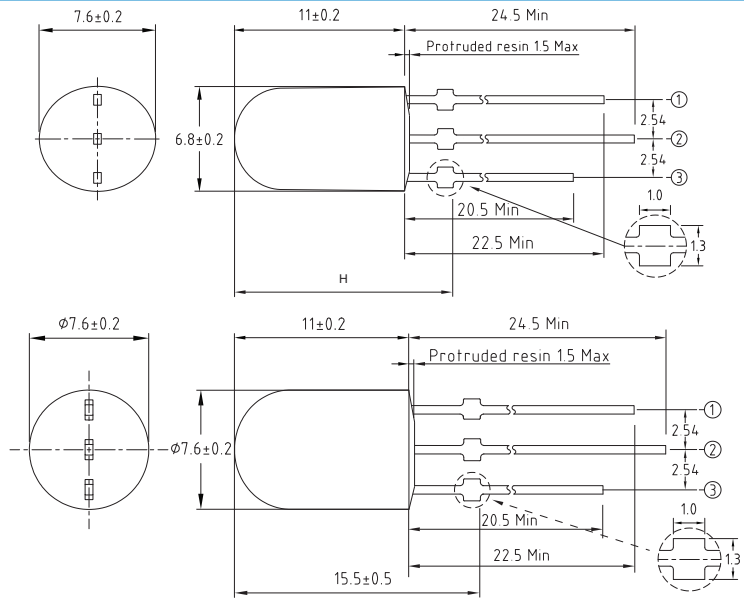
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N11ENJSRC50-S	Sunset Red	Clear	50	605	1150	3200	2.0	20
SL-5N11ENJTRC45-S	True Red	Clear	45	625	880	2500	2.1	20
SL-5N11ENJTRD30	True Red	White Diffused	30	625	520	1500	2.1	20
SL-5N11ESPPBC45	Pure Blue	Clear	45	470	1900	5500	3.2	20
SL-5N11ESPPBC50-S	Pure Blue	Clear	50	470	1500	4200	3.2	20
SL-5N11ESPPGC50-S	Green	Clear	50	525	2500	7200	3.2	20



Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-5N04EAXRGD30-S	Red & Green	White Diffused	30	R:630 G:525	R:1900 G:3200	R:4200 G:7200	R:2.2 G:3.1	20
SL-5N04ENJRGC30	Red & Green	Clear	30	R:625 G:525	R:1500 G:3200	R:3200 G:7200	R:2.0 G:3.2	20
SL-5N04ESPGBD30	Green & Blue	White Diffused	30	G:525 B:470	G:2500 B:880	G:5500 B:1900	G:3.2 B:3.2	20

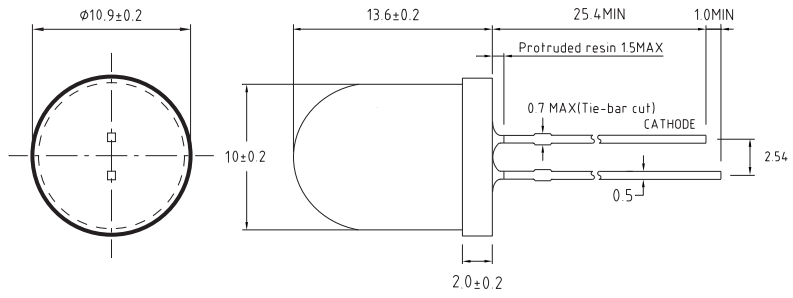


Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-6N01EACYLD30	Yellow	White Diffused	30	590	520	1500	2.0	20
SL-6N01EASRED30	Red & Bluish Green	White Diffused	30	R:627 G:505	R:1150 G:2500	-	R:2.1 G:3.1	20
SL-6N01ENJRGD30	Red & Green	White Diffused	30	R:625 YG:530	R:1150 YG:4200	-	R:2.0 YG:3.2	20
SL-6N02ENSRGD30	Red & Green	White Diffused	30	R:625 G:530	R:680 G:4000	-	R:2.0 G:3.2	20



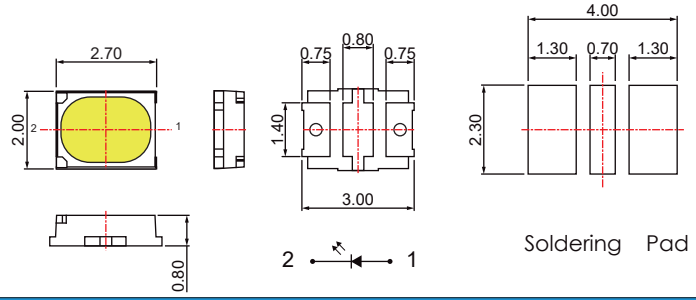
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-75K01EACYRD50-S	Yellow Green & Red	White Diffused	50	R:623 YG:570	R:1900 YG:240	R:4200 YG:520	R:2.1 YG:2.1	20
SL-7M01EACYRC30-S	Yellow Green & Red	Clear	30	R:623 YG:570	R:4200 YG:400	R:9300 YG:1150	R:2.1 YG:2.0	20
SL-7M01EACYRC50-S	Yellow Green & Red	Clear	50	R:623 YG:570	R:1900 YG:240	R:4200 YG:520	R:2.1 YG:2.0	20

10mm



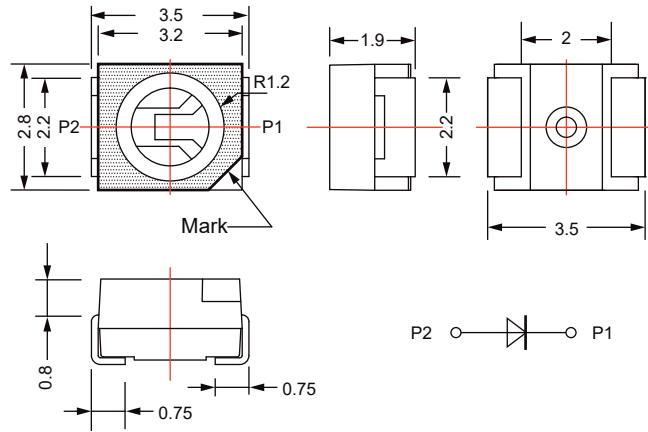
Part No.	Color	Resin Color	View Angle $2\theta_{1/2}$	$\lambda_d(\text{nm})$	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SL-10N02EAXTRC15	True Red	Clear	15	625	5500	15700	2.0	20
SL-10N02EAXYLC15	Yellow	Clear	15	590	5500	15700	2.2	20

SMD



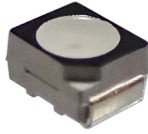
Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-302AE9LPAAP-Z	Yellow	120	593	-	-	3.1	150

SMD

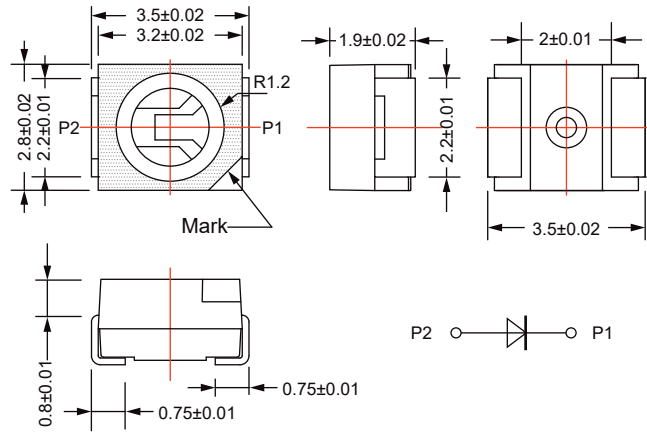


Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-352AE4APBAC-1AA	Blue	120	470	310	680	3.0	20
SS-352AE4APGAC	Pure Green	120	525	1500	3200	3.0	20
SS-352AEA7YLAD-1AA	Yellow	120	590	680	1150	2.1	20
SS-352AEASTRAD-1AA	True Red	120	625	680	1500	2.1	20
SS-352AEAXTRAD-1AA	True Red	120	625	680	1500	2.1	20
SS-352AEAXYLAC-1AA	Yellow	120	590	1500	3200	2.5	20
SS-352AENJTRAD-1AA	True Red	120	625	210	520	1.9	10
SS-352AESPPBAC-1AAZ	Blue	120	471	84	310	3.0	10
SS-352AESPPGAC-1AA	Pure Green	120	525	880	2500	3.2	20

SMD



SS-352AE8APGAC-Z

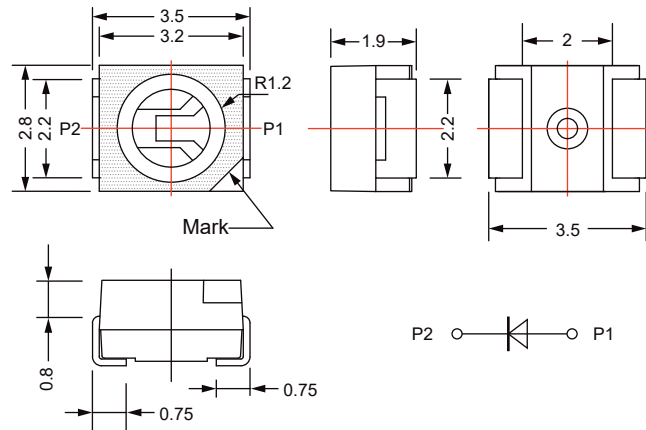


Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-352AE8APGAC-Z	Pure Green	120	525	-	-	3.2	140
SS-352AEASYLFD	Yellow (Amber)	120	590	880	1500	2.1	20

SMD



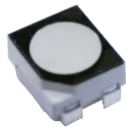
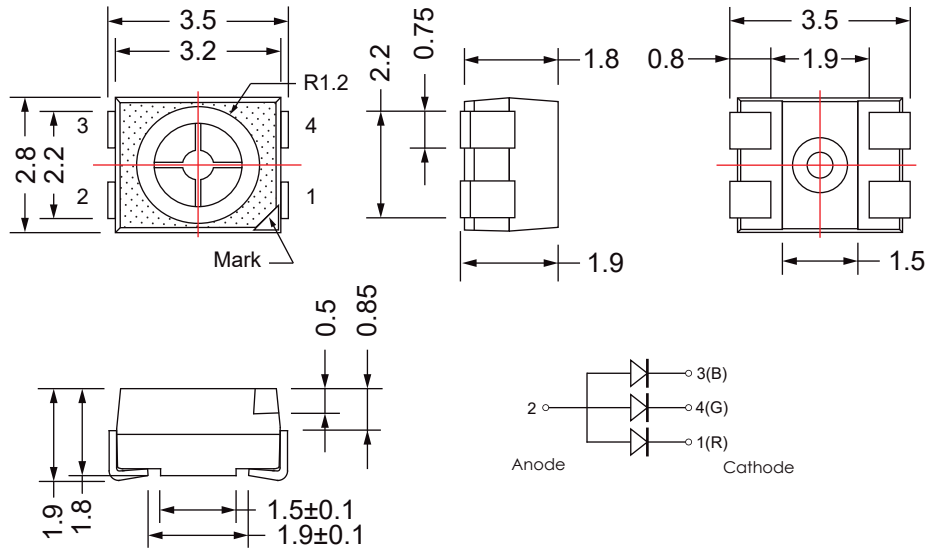
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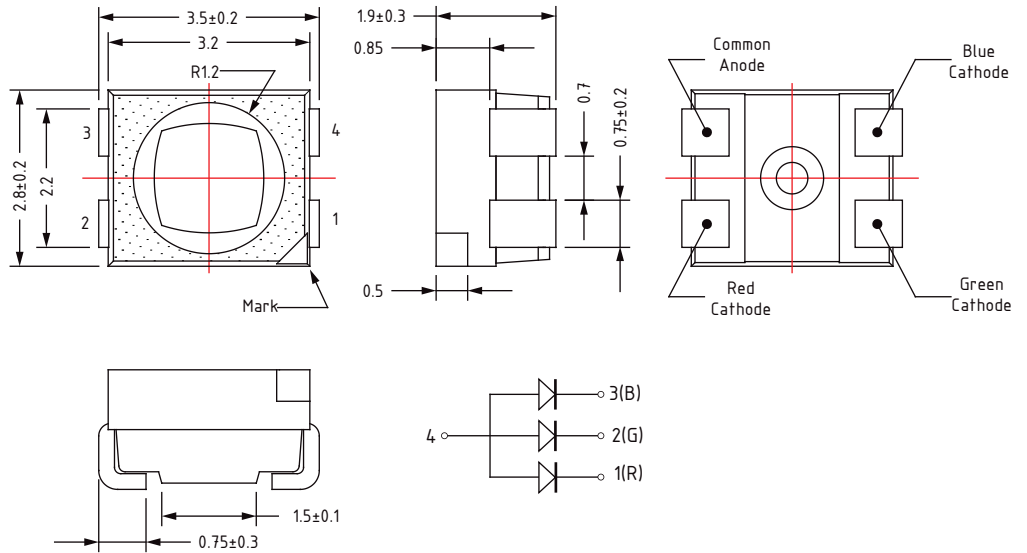
Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-352AE2NYLAC	Yellow	120	590	4500	9000	2.4	140
SS-352BECFDBAC-Z	Blue	120	465	60	175	2.5	20



P43528RGB13WD-R



P43528RGBWD-3BF

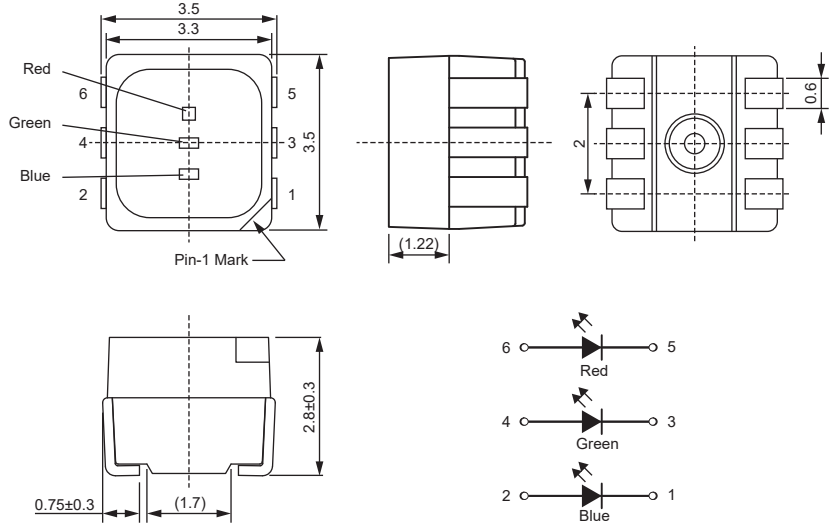


Part No.	Color	View Angle 2θ _{1/2}	λ _d (nm)	Min. Luminous Intensity I _v (mcd)	Max. Luminous Intensity I _v (mcd)	Typ. Forward Voltage V _F (V)	Forward Current I _F (mA)
P43528RGB13WD-R	RGB	120	R:620-630 G:525-535 B:465-475	R:680 G:1500 B:310	-	R:2.2 G:3.2 B:3.2	20
P43528RGBWD-3BF	RGB	120	R:620-630 G:525-535 B:465-475	R:550 G:800 B:250	-	R:2.1 G:3.2 B:3.2	20
SS-352AEHSTRFC-1AA	True Red	120	625	1500	3200	2.1	50
SS-352AEHSYLFC-1AA	Yellow	120	590	1900	3200	3.2	50
SS-352CEASRGFC	RG	120	R:620-630 G:520-530	R:680 G:1500	R:1150 G:2500	R:2.1 G:3.1	20
SS-352CEASYRAD	R/YG	120	R:620-630 YG:565-575	R:680 YG:77	R:1150 YG:130	R:2.1 YG:2.1	20

SMD



SS-353AEAXCFD

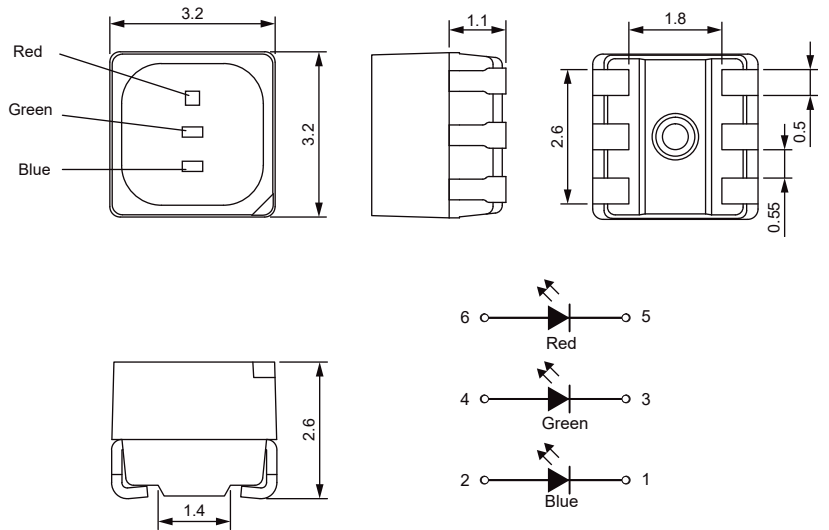


Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-353AEAXCFD	RGB	115	R:619-624 G:520-535 B:465-475	R:610 G:1120 B:250	R:1220 G:2860 B:500	R:2.2 G:3.2 B:3.2	20

SMD



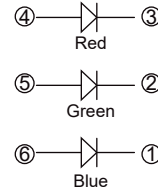
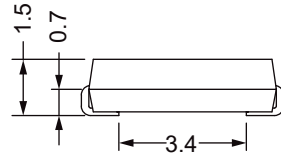
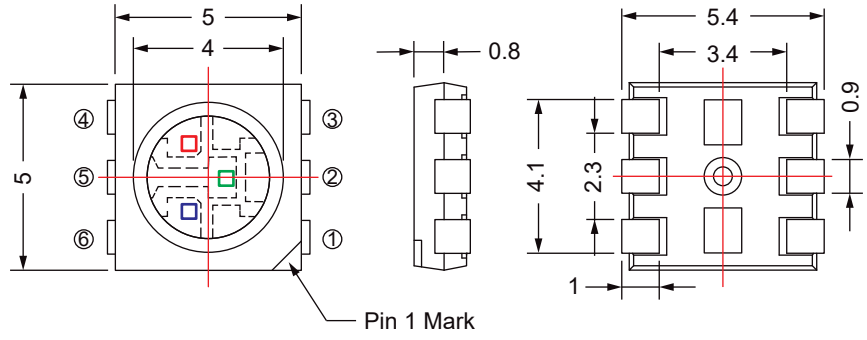
SS-323AEASFCD



Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-323AEASFCD	RGB	115	R:619-624 G:520-535 B:465-475	R:630 G:1200 B:280	R:1380 G:2500 B:550	R:2.2 G:3.2 B:3.2	20

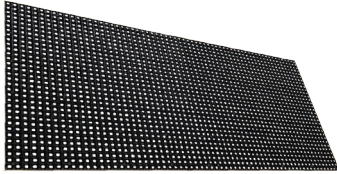
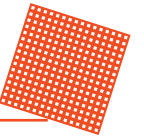


SS-505AENHFCAC-3



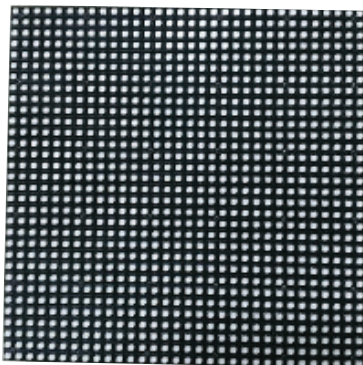
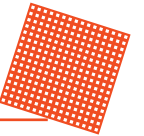
Part No.	Color	View Angle $2\theta_{1/2}$	λ_d (nm)	Min. Luminous Intensity I_v (mcd)	Max. Luminous Intensity I_v (mcd)	Typ. Forward Voltage V_F (V)	Forward Current I_F (mA)
SS-505AENHFCAC-3	RGB	120	R:620-630 G:520-530 B:465-475	R:300 G:1100 B:180	-	R:2.0 G:3.1 B:3.1	20
SS-505AEAXFCAD	RGB	120	R:620-630 G:520-530 B:465-475	-	-	R:2.2 G:3.2 B:3.2	20
SS-505AEAXFCFD-3AAZ	RGB	120	R:620-630 G:520-530 B:465-475	R:1150 G:2500 B:400	-	R:2.4 G:3.2 B:3.2	20

Module (5MM)



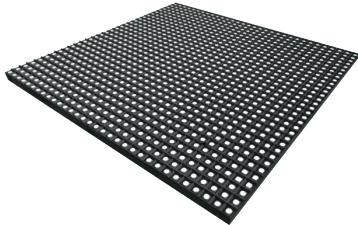
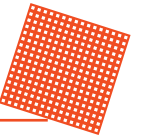
Module Type	Outdoor LED Display Module
Maintenance Direction	Rear
LED Type	R/G/B 3in1 SMD LED
Display Color	Full Color
Module dimension	320mm x 160mm
Module Pixel	2048 pixel / module
Pixel Pitch	5 mm
Resolution	40,000 dot/m ²
Brightness (Typ.)	5000 cd/m ²
View Angle Horizontal Axis	+60 ° / -60 ° (120 °)
Vertical Axis	+60 ° / -60 ° (120 °)
Weight (Typ.)	485.1 g/Module

Module (6MM)



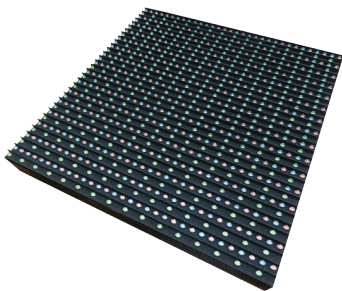
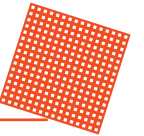
Module Type	Outdoor LED Display Module
Maintenance Direction	Front and Rear
LED Type	R/G/B 3in1 SMD LED
Display Color	Full Color
Module dimension	192mm x 192mm
Module Pixel	1024 pixel/module
Pixel Pitch	6 mm
Resolution	27775 dot/m ²
Brightness (Typ.)	8000 cd/m ²
View Angle Horizontal Axis	+60 ° / -60 ° (120 °)
Vertical Axis	+60 ° / -60 ° (120 °)
Weight (Typ.)	1250 g/Module

Module (10MM)



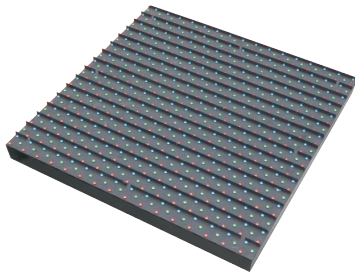
Module Type	Outdoor LED Display Module
Maintenance Direction	Front and Rear
LED Type	R/G/B 3in1 SMD LED
Display Color	Full Color
Module dimension	320mm x 320mm
Module Pixel	1024 pixel/module
Pixel Pitch	10 mm
Resolution	10000 dot/m ²
Brightness (Typ.)	8000 cd/m ²
View Angle Horizontal Axis	+60 ° / -60 ° (120 °)
Vertical Axis	+60 ° / -60 ° (120 °)
Weight (Typ.)	1600 g/Module

Module (12.5MM)



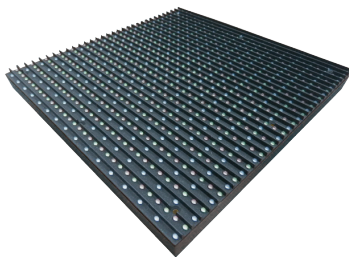
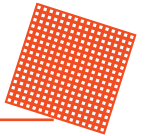
Module Type	Outdoor LED Display Module
Maintenance Direction	Rear
LED Type	R/G/B 3in1 LAMP LED
Display Color	Full Color
Module dimension	200mm x 200mm
Module Pixel	256 pixel/module
Pixel Pitch	12.5 mm
Resolution	6400 dot / m ²
Brightness (Typ.)	10000 cd/m ²
View Angle Horizontal Axis	+55 ° / -55 ° (110 °)
Vertical Axis	+20 ° / -20 ° (40 °)
Weight (Typ.)	900 g/Module

Module (16MM)



Module Type	Outdoor LED Display Module
Maintenance Direction	Front and Rear
LED Type	R/G/B 3in1 LAMP LED
Display Color	Full Color
Module dimension	256mm x 256mm
Module Pixel	256 pixel/module
Pixel Pitch	16 mm
Resolution	3906 dot/m ²
Brightness (Typ.)	8000 cd/m ²
View Angle Horizontal Axis	+55 ° / -55 ° (110 °)
Vertical Axis	+20 ° / -20 ° (40 °)
Weight (Typ.)	1300 g/Module

Module (20MM)



Module Type	Outdoor LED Display Module
Maintenance Direction	Front and Rear
LED Type	R/G/B 3in1 LAMP LED
Display Color	Full Color
Module dimension	320mm x 320mm
Module Pixel	256 pixel/module
Pixel Pitch	20 mm
Resolution	2500 dot/m ²
Brightness (Typ.)	6000 cd/m ²
View Angle Horizontal Axis	+60 ° / -60 ° (120 °)
Vertical Axis	+20 ° / -20 ° (40 °)
Weight (Typ.)	1600 g/Module

LED LIGHTING



Item No.	Input Voltage	Operating Temp.	Power	Beam Angle	CCT (K)	Lumen (lm)
SL-PL100-U	AC100-240V	-20°C~+40°C	100W	120°	2700~6500	10500~12500
SL-PL150-U	AC100-240V	-20°C~+40°C	150W	120°	2700~6500	15000~17250

LED LIGHTING



Item No.	Input Voltage	Operating Temp.	Power	Beam Angle	CCT (K)	Lumen (lm)
PAR52UB3	AC100-240V	-20°C~+40°C	45W	120°	2700~6500	4725~5625

LED LIGHTING



Item No.	Input Voltage	Operating Temp.	Power	Beam Angle	CCT (K)	Lumen (lm)
SL-P38 E27	AC100-240V	-20°C~+40°C	20W	120°	2700~5700	1900~2000

LED LIGHTING



Item No.	Input Voltage	Size	Max. links
SDC-50A	DC12V	φ50	9 clusters

LED LIGHTING



Item No.	Input Voltage	Size	CCT (K)
SL-75710A	DC24V	300/600/1000/1200mm(L) x 35(W) x 20mm(H)	3000K, 4000K, 5000K

LED LIGHTING

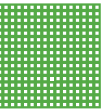


Item No.	Input Voltage	Size	CCT (K)
SL-505010A	DC24V	300/600/1000/1200mm(L) x 27(W) x 13mm(H)	2700K, 6500K

LED LIGHTING



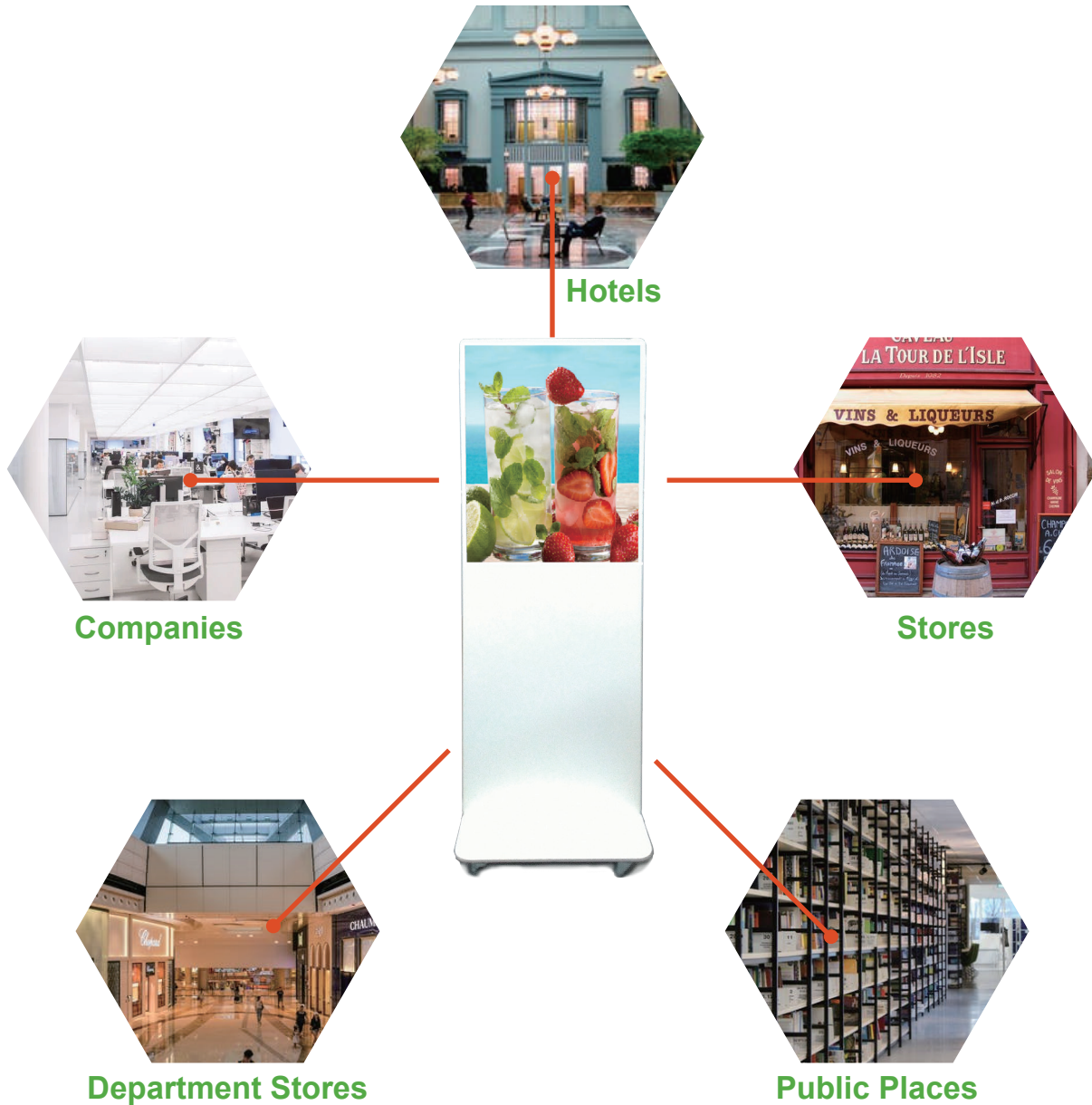
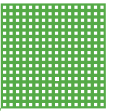
Item No.	Input Voltage	Size	CCT (K)
SL-352810A	DC24V	300/600/1000/1200mm(L) x 9(W) x 16.5mm(H)	3000K, 4000K, 5000K



IS02A LED Full Color Display - Pitch 2mm



Screen Size	Width 51 x Height 64 cm
Resolution	Width 256 x Height 320 = 81,920 dots
LED Type	RGB 3 in 1 SMD LED
Pixel Pitch	2mm
Display Color	Up to 16.77 million colors
Brightness	600nits
Electricity Requirements	AC110V 60Hz Maximum 130W, Average 40W
Physical Dimensions	541 x 670 x 80 mm (WxHxD)(without stand) Total height including stand 1503mm
Installation method	Suspension, floor (optional stand)
Weight	12.5kg (without stand) /19.5kg (with stand)
Environment	Temperature 0~40°C, Humidity 20% ~ 85% (no condensation)



Features:

- ⌘ High brightness, full color display
- ⌘ Horizontal 140 degrees, Vertical 140 degrees (Very large viewing angle)
- ⌘ Wi-Fi (wireless transmission)
- ⌘ Supports computer connection and mobile APP program editing and control
- ⌘ Text, picture, animation display
- ⌘ Calendar, time, date display
- ⌘ Supports multiple fonts, font sizes, hollow characters, and stroke characters Various screen switching and text effects
- ⌘ With window division, can have a multi window display
- ⌘ Time programmable (set when to turn on and off)
- ⌘ Manual/ Automatic brightness control

Application Method:

- ⌘ Commercial advertisements/ Greetings/Announcements /Political Campaigns& Proclamation/ Etc...

Application:

- ⌘ Department Stores/ Hotels/ Stores/Companies/Public Places/ Etc...



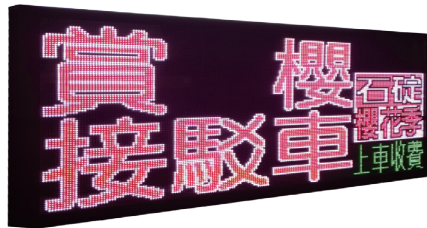
Features:

- ⌘ Full-color text/picture/animation display
- ⌘ Large capacity, can accommodate more than 1000 route information
- ⌘ With window splitting function, each window can display different information independently
- ⌘ All route information is stored in the control box, and only the control box data needs to be updated when the route data is updated, which saves time and effort
- ⌘ The LED module has a built-in high-efficiency power circuit, with scattered heat sources, safe, and simple wiring
- ⌘ With complete protection functions for overvoltage, overcurrent, surge

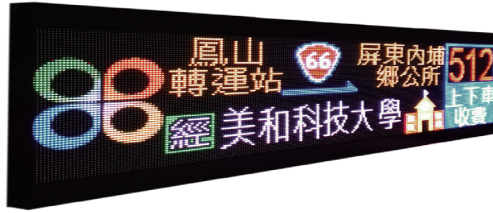
Note:

- ⌘ With turn signals, brake, door opening and other trigger display functions (optional)
- ⌘ Provide models with backplane and without backplane
- ⌘ Installation method and installation bracket can be planned and designed according to the demand
- ⌘ Provide customized services, which can be planned and designed according to needs





Model	PID5A-1	PID5A-2	PID5A-3	PID5A-4
Number of Pixels	W: 64 Dots H: 96 Dots	W: 128 Dots H: 96 Dots	W: 192 Dots H: 96 Dots	W: 256 Dots H: 96 Dots
Display Area	W: 32cm H: 48cm	W: 64cm H: 48cm	W: 96cm H: 48cm	W: 128cm H: 48cm
Input Power	18~32VDC			
Current (consumption)	Max. 4A Ave. 1.5A	Max. 8A Ave. 2.6A	Max. 11.5A Ave. 3.7A	Max. 15.5A Ave. 4.8A
Communication interface	Ethernet/RS-485/RS-232			
Certification	VSCC review number : A109CCEL4-563			
Display function	Text/Picture/Animation			



Model	PID5B-3	PID5B-4	PID5B-5	PID5B-6
Number of Pixels	W: 120 Dots H: 64 Dots	W: 160 Dots H: 64 Dots	W: 200 Dots H: 64 Dots	W: 240 Dots H: 64 Dots
Display Area	W: 60cm H: 32cm	W: 80cm H: 32cm	W: 100cm H: 32cm	W: 120cm H: 32cm
Input Power	18~32VDC			
Current (consumption)	Max. 4.8A Ave. 1.5A	Max. 6.3A Ave. 2A	Max. 7.8A Ave. 2.5A	Max. 9.3A Ave. 3A
Communication interface	Ethernet/RS-485/RS-232			
Certification	VSCC review number : A109CCEL5-563			
Display function	Text/Picture/Animation			



Model	PID6A-3	PID6A-4	PID6A-5	PID6A-6
Number of Pixels	W: 96 Dots H: 32 Dots	W: 128 Dots H: 32 Dots	W: 160 Dots H: 32 Dots	W: 192 Dots H: 32 Dots
Display Area	W: 57.6cm H: 19.2cm	W: 76.8cm H: 19.2cm	W: 96cm H: 19.2cm	W: 115.2cm H: 19.2cm
Input Power	18~32VDC			
Current (consumption)	Max. 4.5A Ave. 1.3A	Max. 5.9A Ave. 1.8A	Max. 7.3A Ave. 2.2A	Max. 8.8A Ave. 2.7A
Communication interface	Ethernet/RS-485/RS-232			
Certification	VSCC review number : A109CCFEO-563			
Display function	Text/Picture/Animation			



Model	PID10A-5	PID10A-6	PID10A-7	PID10A-8
Number of Pixels	W: 120 Dots H: 32 Dots	W: 144 Dots H: 32 Dots	W: 168 Dots H: 32 Dots	W: 192 Dots H: 32 Dots
Display Area	W: 120cm H: 32cm	W: 144cm H: 32cm	W: 168cm H: 32cm	W: 192cm H: 32cm
Input Power	18~32VDC			
Current (consumption)	Max. 10.6A Ave. 3.2A	Max. 12.8A Ave. 3.8A	Max. 15A Ave. 4.5A	Max. 17A Ave. 5.1A
Communication interface	Ethernet/RS-485/RS-232			
Certification	VSCC review number : A109CCDYK-563			
Display function	Text/Picture/Animation			



SANDER PORTFOLIO
COMMERCIAL





SANDER PORTFOLIO
COMMERCIAL





1	BACZKOWSKI T	1	THORSO JESPER
2	TUROWSKI M	2	HASSEL NICHLAS
3	KRAWCZYK MICHAL	3	SOHENSEN KEVIN
4	SZYMAŃSKI PIOTR	4	LYSTER ASLAN
5	PIATEK PIOTR	5	BALTZER MORTEN
6	ŁUC DAWID	6	SOHENSEN J
7	MICHALSKI PIOTR	7	LARSEN C

TEAM	一	二	三	四	五	六	七	八	九	合計
神村	0	0	0	0	0	0	0	0	0	0
桑名工	1	1	1	0	1	1	1	1	1	8

SANDER PORTFOLIO
SPORTS
&
GAMING





SANDER PORTFOLIO
TRANSPORTATION





HEADQUARTERS & LED PLANT

3F, No. 153, Li-Kung St., Beitou Dist.,
Taipei City, 112 Taiwan
www.sander.com
info@sander.com
Tel: +886 2 2895 1361



PRODUCTION FACILITY - SMT

No. 1, Ln. 315, Sec. 3, Wujie Rd., Wujie
Township, Yilan County 268, Taiwan
www.sander.com
info@sander.com
Tel: +886 3 960 3331



PRODUCTION FACILITY -SMT

No. 45-2, Ziliangmiao, Jiali
Dist., Tainan City 722, Taiwan
www.sander.com
info@sander.com
Tel: +886 6 726 3339



SALES OFFICE

502 SK-Park Bldg 3-Choume 2-43,
Nagata-Higashi, Higashi-Osaka
577-0012, Japan
www.a-stech.com
info@a-stech.com
Tel: +81 667 48 3660



SALES OFFICE & PRODUCTION FACILITY

92, Hala Kampung Jawa 1, Kawasan
Perindustrian Bayan Lepas (FASA 3)
11900 Bayan Lepas, Pengang, Malaysia
fw.chong@sunlite.my
Tel: +60 12 424 0432



SALES OFFICE

1249 Morning Song City
El Dorado Hills, CA 95762 USA
www.sander.com
info@sander.com
Tel: +1 916 276 4448