

LED Lighting for



Based LED



For Buttons, Reels
and General Illumination



LED Linear Light



For Backlighting

Dialight



Based LEDs *SELECTOR GUIDE*

With the technological advancements in Light Emitting Diodes (LEDs) brightness can now rival the incandescent lamp when used in similar packages. These advancements have allowed for a new type of product called the *Based LED* - an LED with the fit and functionality of an incandescent light bulb.

Dialight's line of based LEDs were designed with flexibility and efficiency in mind.

- ▲ Longer life - up to 100,000 hrs
- ▲ Energy savings - 90% less power required
- ▲ High reliability - vibration and shock resistant
- ▲ Multi-chip, Cluster, and Single Ultra-Bright Chip
- ▲ AlInGaP and InGaN die technology
- ▲ Polarized and non-polarized
- ▲ Single and multi-voltage input

SAMPLING OF PRODUCT

BASE STYLE	CONFIG.	RED	GREEN	AMBER	BLUE	WHITE	6 VDC	12/14* VDC	24/28* VDC	120 VAC	POLARIZED	NON-POLARIZED	6-36 AC/DC
T 3 1/4 Miniature Screw (E10)	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
T 3 1/4 Miniature Bayonet (BA9S)	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
T 1 3/4 Wedge (T5)	Cluster	✓	✓	✓	✓	✓	✓	✓	✓			✓	
T 3 1/4 Wedge (T10)	Cluster	✓	✓	✓	✓	✓	✓	✓	✓			✓	
T 3 1/4 Miniature Bayonet (BA9S)	Cluster	✓	✓	✓	▶▶	▶▶	✓	✓	✓	✓	✓	✓	

LED Configuration:

Single Chip - The single chip design consists of a single ultra-bright LED of the latest LED technology, AlInGaP or InGaN, which is mounted onto an incandescent base. Even though there is only one LED, this high intensity product can provide equivalent light output of the bulb it replaces. This design has a slightly narrower viewing angle than either the multi-chip or cluster, yet is one of the most cost-effective designs available.

Cluster - The cluster uses multiple discrete SMD or 3 mm T1 LEDs mounted into the appropriate incandescent base. The viewing angle of the cluster is 120°, however the use of multiple LEDs increases the overall light output. The overall design provides flexibility where the latest in LED technology, AlInGaP and InGaN, can be employed.

Multi-chip - The multi-chip device incorporates 6 LED die-mounted on a specially designed ceramic header which is then placed onto a traditional incandescent base. It's unique construction enables versatility; not only can the die be mounted on this header but additional components can be added. Typical viewing angle of the multi-chip is 120°.

Polarity

LEDs are diodes which allow current to flow in only one direction. In order to utilize them with an alternating power source (AC), or if you are unfamiliar with the polarity of your circuit, a rectifying circuit must be used. Dialight's non-polarized based LEDs incorporate a full wave rectifier and all the necessary components to allow proper operation in any circuit providing the correct voltage is used.

Maximizing Light Output

In order to maximize the light output from a based LED, it is important to match the color of the lens cap to the emitting color of the LED. Unlike the incandescent lamp that emits light over the full spectrum, LEDs are monochromatic (emit one color). Since a lens cap is a filter, if not matched properly the overall light output may be substantially reduced.

To Illuminate Switches and Reels

586 Series BASED LEDS

T 3 1/4 WEDGE (T10)



▲ Replaces incandescent lamp numbers: 159, 259, 444, 447, 555, 3-501, 3-504, 3-509, 124, 158, 161, 168, 193, 194, 658, 184, 3-505, 3-507**

T 1 3/4 WEDGE (T5)



▲ Replaces incandescent lamp numbers: 79, 16, 84, 86, 18, 37, 70, 73, 74, 17, 85**

** May replace other incandescent lamps

- ▲ Operating Voltages: 6,12,14 and 24 VDC
(T5 also available in 28 VDC)
- ▲ Non-polarized
- ▲ Operating temperature: -30°C to +85°C
- ▲ Storage temperature: -40°C to +100°C

T 3 1/4 WEDGE (T10)

Part Number	Color	Dominant Wavelength (TYP- nm)	Voltage	Forward Current (TYP. mA)	Intensity (TYP.-mcd)
586-2201-201	Red	615	6 VDC	15	888
586-2202-201	Green	528	6 VDC	15	784
586-2203-201	Yellow	591	6 VDC	15	628
586-2205-201	Blue	470	6 VDC	15	252
586-2206-201	White	*	6 VDC	15	1680
586-220A-201	White/Yellow	* / 591	6 VDC	15	1154
586-220B-201	White/Orange	* / 610	6 VDC	15	1232
586-2201-202	Red	615	12 VDC	15	888
586-2202-202	Green	528	12 VDC	15	784
586-2203-202	Yellow	591	12 VDC	15	628
586-2205-202	Blue	470	12 VDC	15	252
586-2206-202	White	*	12 VDC	15	1680
586-220A-202	White/Yellow	* / 591	12 VDC	15	1154
586-220B-202	White/Orange	* / 610	12 VDC	15	1232
586-2201-203	Red	615	14 VDC	15	888
586-2202-203	Green	528	14 VDC	15	784
586-2203-203	Yellow	591	14 VDC	15	628
586-2205-203	Blue	470	14 VDC	15	252
586-2206-203	White	*	14 VDC	15	1680
586-220A-203	White/Yellow	* / 591	14 VDC	15	1154
586-220B-203	White/Orange	* / 610	14 VDC	15	1232
586-2201-204	Red	615	24 VDC	15	888
586-2202-204	Green	528	24 VDC	15	784
586-2203-204	Yellow	591	24 VDC	15	628
586-2205-204	Blue	470	24 VDC	15	252
586-2206-204	White	*	24 VDC	15	1680
586-220A-204	White/Yellow	* / 591	24 VDC	15	1154
586-220B-204	White/Orange	* / 610	24 VDC	15	1232

T 1 3/4 WEDGE (T5)

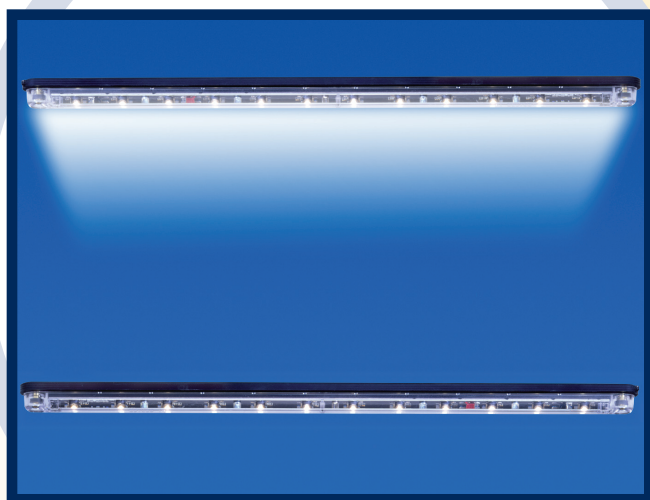
Part Number	Color	Dominant Wavelength (TYP- nm)	Voltage	Forward Current (TYP. mA)	Intensity (TYP.-mcd)
586-1201-201	Red	615	6 VDC	35	450
586-1202-201	Green	528	6 VDC	15	120
586-1203-201	Yellow	587	6 VDC	35	450
586-1205-201	Blue	470	6 VDC	15	50
586-1206-201	White	*	6 VDC	15	320
586-1201-202	Red	615	12 VDC	18	450
586-1202-202	Green	528	12 VDC	11	170
586-1203-202	Yellow	587	12 VDC	18	450
586-1205-202	Blue	470	12 VDC	11	70
586-1206-202	White	*	12 VDC	11	450
586-1201-203	Red	615	14 VDC	20	500
586-1202-203	Green	528	14 VDC	12	185
586-1203-203	Yellow	587	14 VDC	20	500
586-1205-203	Blue	470	14 VDC	12	75
586-1206-203	White	*	14 VDC	12	500
586-1201-204	Red	615	24 VDC	14	350
586-1202-204	Green	528	24 VDC	14	215
586-1203-204	Yellow	587	24 VDC	14	350
586-1205-204	Blue	470	24 VDC	14	85
586-1206-204	White	*	24 VDC	14	580
586-1201-205	Red	615	28 VDC	14	350
586-1202-205	Green	528	28 VDC	13	210
586-1203-205	Yellow	587	28 VDC	14	350
586-1205-205	Blue	470	28 VDC	13	80
586-1206-205	White	*	28 VDC	13	540

* White Color Coordinates: x = .320, y = .310

Dialight reserves the right to make changes at any time in order to supply the best product possible.

For Back Lighting Panels

18 inch (460 mm) Linear Light Strip



- ▲ Operating Requirements: Constant current source of 700 mA*
- ▲ Operating Temperature: -40°C to +55°C
- ▲ Storage Temperature: -40°C to +120°C
- ▲ Lumens Output: up to 360 lumens
- ▲ Housing Material: Black Aluminum
- ▲ Lens Material: Polycarbonate
- UL94 flammability rating
- ▲ Projected life: 50,000 hours
(70% initial output after 50,000 hours)

*Example: Advance Transformer Part Number
120VAC input - LED 120A0700C24F
230VAC input - LED 913700518806

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PART NUMBER	TYPICAL LUMEN OUTPUT	COLOR	LENS
SLW-46021-ICA	120	Warm White	non-diffused
SLW-46021-ICB	120	Warm White	diffused
SLC-46027-ICA	150	Cool White	non-diffused
SLC-46027-ICB	150	Cool White	diffused
SLW-46042-ICA	240	Warm White	non-diffused
SLW-46042-ICB	240	Warm White	diffused
SLC-46054-ICA	300	Cool White	non-diffused
SLC-46054-ICB	300	Cool White	diffused

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