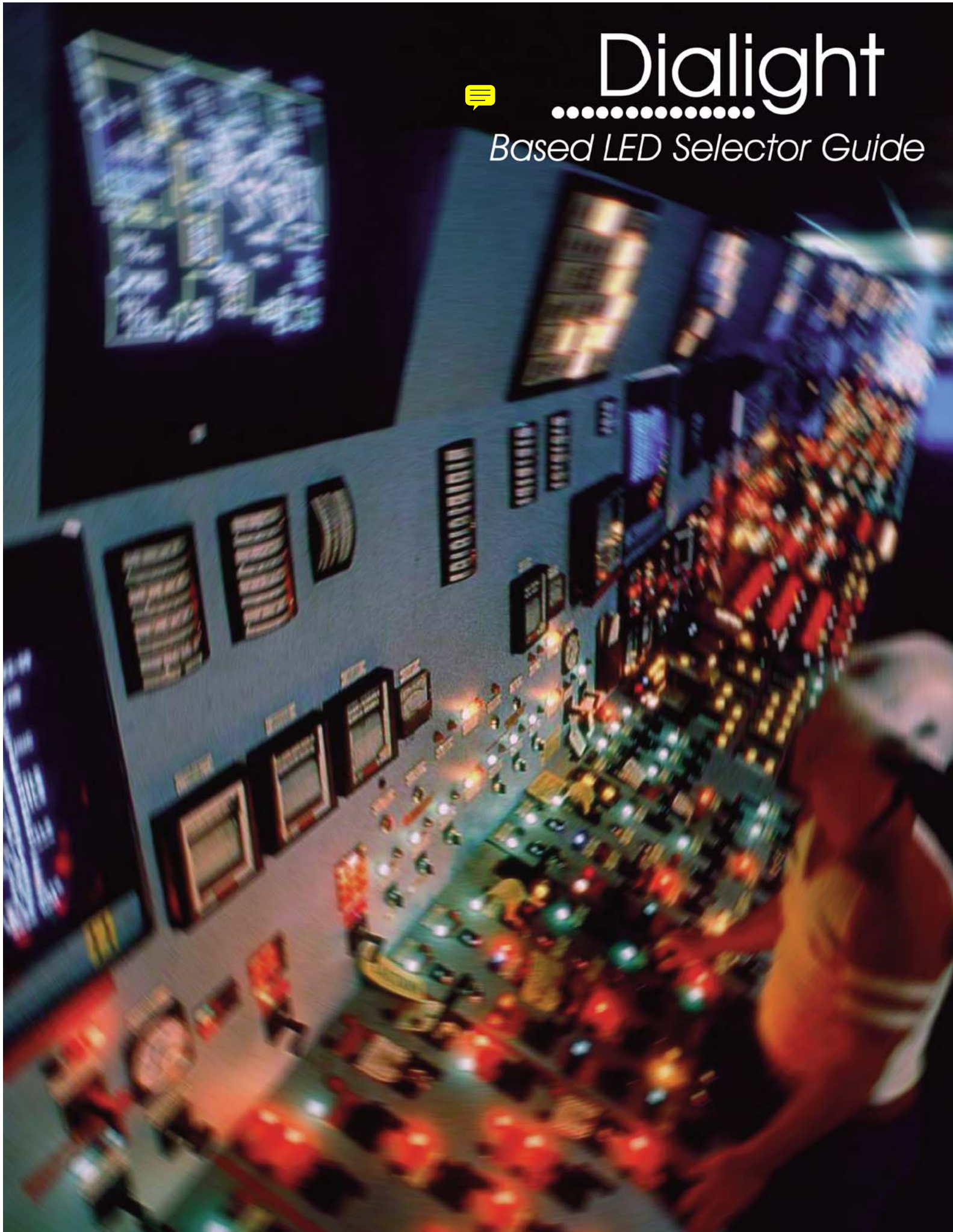




# Dialight

*Based LED 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.

- ▲ RoHS compliant
- ▲ Longer life
- ▲ Energy savings - 90% less power required
- ▲ High reliability - vibration and shock resistant
- ▲ Multi-chip, Cluster, and Single Ultra-Bright Chip
- ▲ AllInGaP and InGaN die technology
- ▲ Polarized and non-polarized
- ▲ Single and multi-voltage input



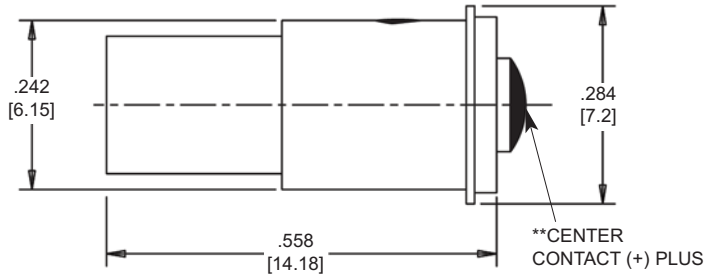
BASE STYLE	CONFIG.	RED	GREEN	YELLOW	BLUE	WHITE	6 VDC	12/14* VDC	24/28* VDC	120 VAC	POLARIZED	NON-POLARIZED	6-36 AC/DC	RoHS Compliant
T1 3/4 Midget Flange	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓
T1 3/4 Midget Flange	Multi Chip	✓	✓	✓			✓	✓	✓		✓	✓		
T1 3/4 Wedge (T5)	Multi Chip	✓	✓	✓			✓	✓	✓		✓	✓		
T1 3/4 Wedge (T5)	Single / Dual Chip	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
T1 3/4 Bi-Pin	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓
T1 3/4 Bi-Pin	Multi Chip	✓	✓	✓			✓	✓	✓		✓	✓		
T2 Telephone Slide	Single Chip	✓	✓	✓	✓	✓			✓			✓		✓
T3 1/4 Miniature Bayonet (BA9s)	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
T3 1/4 Miniature Bayonet (BA9s)	Cluster	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
T3 1/4 Miniature Screw (E10)	Single Chip	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
T3 1/4 Wedge (T10)	Cluster	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
15mm Bayonet (BA15s)	Cluster	✓	✓	✓	✓	✓		✓	✓		✓			✓

### Considerations:

- ▲ Since lens caps act as filters for the light emitted from the based LED, it is important to match the emitting color of the LED. If not matched properly, the overall light output may be substantially reduced. Dialight recommends using transparent lenses, which will optimize the light output.
- ▲ Although these lamps can be operated at a lower voltage, which will increase the life, the intensity will be reduced.
- ▲ Operation of the based LED at a higher voltage should not exceed 10% above the recommended voltage.
- ▲ Dialight does not recommend that based LED lamps be used in neon sockets.

# Dialight

## 586 Series Single Chip BASED LED T 1 3/4 MIDGET FLANGE



Measurements are typical  
Dimensions are inches [mm]

### T 1 3/4 MIDGET FLANGE - POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-1101-101F	Red	639	6	10	775	✓
586-1102-101F	Green	520	6	10	600	✓
586-1103-101F	Yellow	592	6	10	775	✓
586-1105-101F	Blue	467	6	10	210	✓
586-1106-101F	White	*	6	10	460	✓
586-1101-103F	Red	639	14	10	775	✓
586-1102-103F	Green	520	14	10	600	✓
586-1103-103F	Yellow	592	14	10	775	✓
586-1105-103F	Blue	467	14	10	210	✓
586-1106-103F	White	*	14	10	460	✓
586-1101-105F	Red	639	28	10	775	✓
586-1102-105F	Green	520	28	10	600	✓
586-1103-105F	Yellow	592	28	10	775	✓
586-1105-105F	Blue	467	28	10	210	✓
586-1106-105F	White	*	28	10	460	✓

\* Color coordinates: x = .320, y = .320

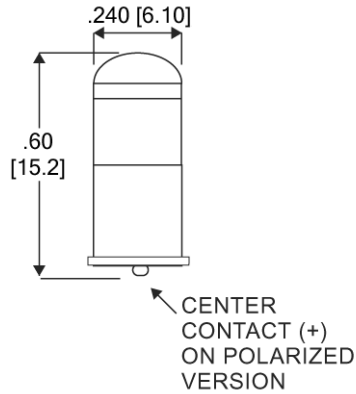
\*\*(Center Contact Negative Versions Available)



# Dialight

## 585 Series

### Multi-Chip BASED LED T1 3/4 Midget Flange



Measurements are typical  
Dimensions are inches [mm]

#### POLARIZED

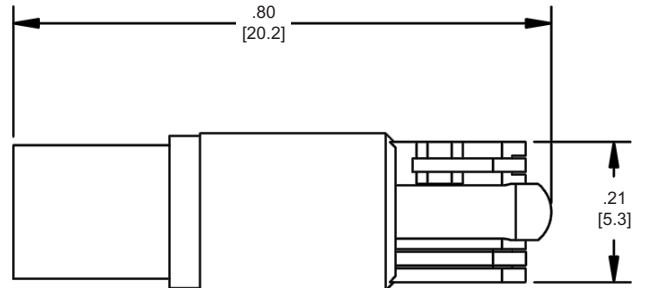
Part Number	Color	Peak Wavelength (nm)	Voltage (VDC)	Current TYP.-(mA)	Intensity TYP.-(mcd)
585-1211	Red	660	6	50	67
585-1311	Green	565	6	46	77
585-1411	Yellow	585	6	44	22
585-1213	Red	660	14	30	60
585-1313	Green	565	14	28	70
585-1413	Yellow	585	14	30	23
585-1215	Red	660	28	16	64
585-1315	Green	565	28	15	75
585-1415	Yellow	585	28	15	23

#### NON-POLARIZED

Part Number	Color	Peak Wavelength (nm)	Voltage (VDC)	Current TYP.-(mA)	Intensity TYP.-(mcd)
585-1221	Red	660	6	75	50
585-1321	Green	565	6	67	56
585-1421	Yellow	585	6	73	18
585-1223	Red	660	14	26	50
585-1323	Green	565	14	23	56
585-1423	Yellow	585	14	24	18
585-1225	Red	660	28	14	56
585-1325	Green	565	28	13	65
585-1425	Yellow	585	28	13	20

# Dialight

## 586 Series SINGLE CHIP BASED LED T1 3/4 WEDGE (T5)



Measurements are typical  
Dimensions are inches [mm]

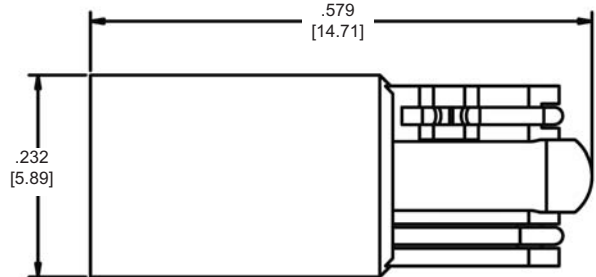
### T1 3/4 WEDGE (T5) POLARIZED

Part Number	Color	Dominant Wavelength (TYP- nm)	Nominal Voltage (VDC)	Forward Current TYP-(mA)	Intensity TYP.-(mcd)	RoHS Compliant
586-1A01-101F	Red	630	6	16	775	✓
586-1A02-101F	Green	526	6	16	600	✓
586-1A03-101F	Yellow	592	6	16	775	✓
586-1A04-101F	Orange	615	6	16	775	✓
586-1A05-101F	Blue	472	6	16	165	✓
586-1A06-101F	White	*	6	16	460	✓
586-1A01-103F	Red	630	14	16	775	✓
586-1A02-103F	Green	526	14	16	600	✓
586-1A03-103F	Yellow	592	14	16	775	✓
586-1A04-103F	Orange	615	14	16	775	✓
586-1A05-103F	Blue	472	14	16	165	✓
586-1A06-103F	White	*	14	16	460	✓
586-1A01-105F	Red	630	28	16	775	✓
586-1A02-105F	Green	526	28	16	600	✓
586-1A03-105F	Yellow	592	28	16	775	✓
586-1A04-105F	Orange	615	28	16	775	✓
586-1A05-105F	Blue	472	28	16	165	✓
586-1A06-105F	White	*	28	16	460	✓

# Dialight

## 586 Series BASED LED

### T1 3/4 WEDGE (T5)



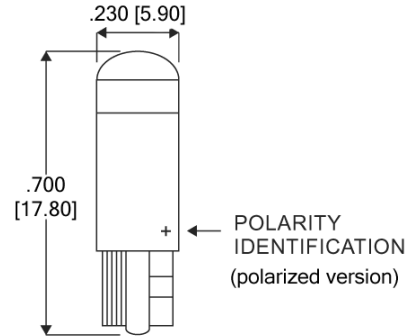
Measurements are typical  
Dimensions are inches [mm]

### T1 3/4 WEDGE (T5) NON-POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-1201-201F	Red	615	6	35	450	✓
586-1202-201F	Green	528	6	12	120	✓
586-1203-201F	Yellow	587	6	35	450	✓
586-1205-201F	Blue	470	6	12	50	✓
586-1206-201F	White	*	6	15	320	✓
586-1201-202F	Red	615	12	18	450	✓
586-1202-202F	Green	528	12	8	170	✓
586-1203-202F	Yellow	587	12	18	450	✓
586-1205-202F	Blue	470	12	8	70	✓
586-1206-202F	White	*	12	11	450	✓
586-1201-203F	Red	615	14	20	500	✓
586-1202-203F	Green	528	14	8.5	185	✓
586-1203-203F	Yellow	587	14	20	500	✓
586-1205-203F	Blue	470	14	8.5	75	✓
586-1206-203F	White	*	14	12	500	✓
586-1201-204F	Red	615	24	14	350	✓
586-1202-204F	Green	528	24	10	215	✓
586-1203-204F	Yellow	587	24	14	350	✓
586-1205-204F	Blue	470	24	10	85	✓
586-1206-204F	White	*	24	14	580	✓
586-1201-205F	Red	615	28	14	350	✓
586-1202-205F	Green	528	28	10	210	✓
586-1203-205F	Yellow	587	28	14	350	✓
586-1205-205F	Blue	470	28	10	80	✓
586-1206-205F	White	*	28	14	540	✓

# Dialight

## 585 Series Multi-Chip BASED LED T 1 3/4 Wedge



Measurements are typical

Dimensions are inches [mm]

### POLARIZED

Part Number	Color	Peak Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP. (mA)	Intensity TYP. (mcd)
585-2211	Red	660	6	50	67
585-2311	Green	565	6	46	77
585-2411	Yellow	585	6	44	22
585-2213	Red	660	14	30	60
585-2313	Green	565	14	28	70
585-2413	Yellow	585	14	30	23
585-2215	Red	660	28	16	64
585-2315	Green	565	28	15	75
585-2415	Yellow	585	28	15	23

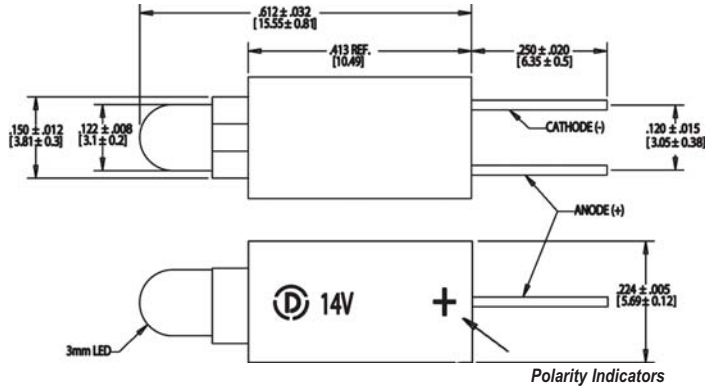
### NON-POLARIZED

Part Number	Color	Peak Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP. (mA)	Intensity TYP. (mcd)
585-2221	Red	660	6	75	50
585-2321	Green	565	6	67	56
585-2421	Yellow	585	6	73	18
585-2223	Red	660	14	26	50
585-2323	Green	565	14	23	56
585-2423	Yellow	585	14	24	18
585-2225	Red	660	28	14	56
585-2325	Green	565	28	13	65
585-2425	Yellow	585	28	13	20



# 586 Series Single Chip BASED LED

## T1 3/4 BI-PIN



Measurements are typical  
Dimensions are inches [mm]

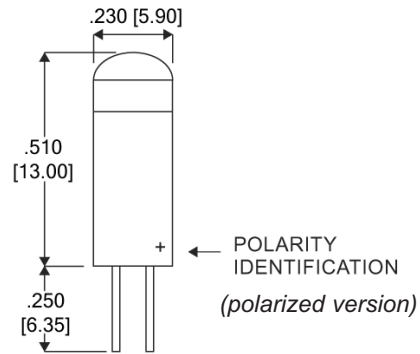
### T1 3/4 BI-PIN POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-1301-101F	Red	626	6	10	90	✓
586-1302-101F	Green	525	6	10	1700	✓
586-1303-101F	Yellow	590	6	10	110	✓
586-1305-101F	Blue	470	6	10	500	✓
586-1306-101F	White	*	6	10	635	✓
586-1301-103F	Red	626	14	10	90	✓
586-1302-103F	Green	525	14	10	1700	✓
586-1303-103F	Yellow	590	14	10	110	✓
586-1305-103F	Blue	470	14	10	500	✓
586-1306-103F	White	*	14	10	635	✓
586-1301-105F	Red	626	28	10	90	✓
586-1302-105F	Green	525	28	10	1700	✓
586-1303-105F	Yellow	590	28	10	110	✓
586-1305-105F	Blue	470	28	10	500	✓
586-1306-105F	White	*	28	10	635	✓



# Dialight

## 585 Series Multi-Chip BASED LED T1 3/4 Bi-Pin



Measurements are typical  
Dimensions are inches [mm]

### POLARIZED

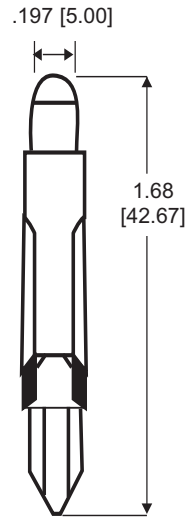
Part Number	Color	Peak Wavelength (nm)	Voltage (VDC)	Current TYP.-(mA)	Intensity TYP.-(mcd)
585-3211	Red	660	6	50	67
585-3311	Green	565	6	46	77
585-3411	Yellow	585	6	44	22
585-3213	Red	660	14	30	60
585-3313	Green	565	14	28	70
585-3413	Yellow	585	14	30	23
585-3215	Red	660	28	16	64
585-3315	Green	565	28	15	75
585-3415	Yellow	585	28	15	23

### NON-POLARIZED

Part Number	Color	Peak Wavelength (nm)	Voltage (VDC)	Current TYP.-(mA)	Intensity TYP.-(mcd)
585-3221	Red	660	6	75	50
585-3321	Green	565	6	67	56
585-3421	Yellow	585	6	73	18
585-3223	Red	660	14	26	50
585-3323	Green	565	14	23	56
585-3423	Yellow	585	14	24	18
585-3225	Red	660	28	14	56
585-3325	Green	565	28	13	65
585-3425	Yellow	585	28	13	20

# Dialight

## 586 Series Single Chip BASED LED T2 Telephone Slide (TYPE 3)



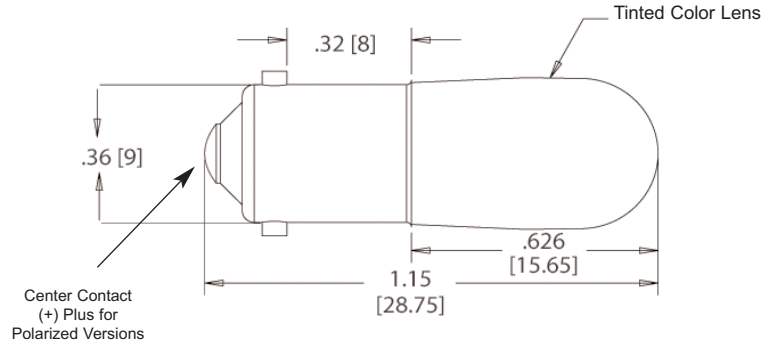
*Measurements are typical  
Dimensions are inches [mm]*

### T2 TELEPHONE SLIDE (ANSI #1) NON-POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-3501-204F	Red	622	24	25	600	✓
586-3502-204F	Green	525	24	25	5000	✓
586-3503-204F	Yellow	592	24	25	1700	✓
586-3505-204F	Blue	470	24	25	1500	✓
586-3506-204F	White	*	24	25	5600	✓

# 586 Series Single Chip BASED LED

## T 3 1/4 MINIATURE BAYONET (BA9s)



Measurements are typical  
Dimensions are inches [mm]

### T 3 1/4 MINIATURE BAYONET (BA9s) POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-2401-101F	Red	630	6	15	1050	✓
586-2402-101F	Green	525	6	15	1650	✓
586-2403-101F	Yellow	592	6	15	1275	✓
586-2405-101F	Blue	470	6	15	487	✓
586-2406-101F	White	*	6	15	825	✓
586-2401-103F	Red	630	14	15	1050	✓
586-2402-103F	Green	525	14	15	1650	✓
586-2403-103F	Yellow	592	14	15	1275	✓
586-2405-103F	Blue	470	14	15	487	✓
586-2406-103F	White	*	14	15	825	✓
586-2401-105F	Red	630	28	15	1050	✓
586-2402-105F	Green	525	28	15	1650	✓
586-2403-105F	Yellow	592	28	15	1275	✓
586-2405-105F	Blue	470	28	15	487	✓
586-2406-105F	White	*	28	15	825	✓

### T 3 1/4 MINIATURE BAYONET (BA9s) NON-POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-2401-201F	Red	630	6	15	1050	✓
586-2402-201F	Green	525	6	15	1650	✓
586-2403-201F	Yellow	592	6	15	1275	✓
586-2405-201F	Blue	470	6	15	487	✓
586-2406-201F	White	*	6	15	825	✓
586-2401-203F	Red	630	14	15	1050	✓
586-2402-203F	Green	525	14	15	1650	✓
586-2403-203F	Yellow	592	14	15	1275	✓
586-2405-203F	Blue	470	14	15	487	✓
586-2406-203F	White	*	14	15	825	✓
586-2401-205F	Red	630	28	7.5	525	✓
586-2402-205F	Green	525	28	7.5	825	✓
586-2403-205F	Yellow	592	28	7.5	637	✓
586-2405-205F	Blue	470	28	7.5	243	✓
586-2406-205F	White	*	28	7.5	412	✓

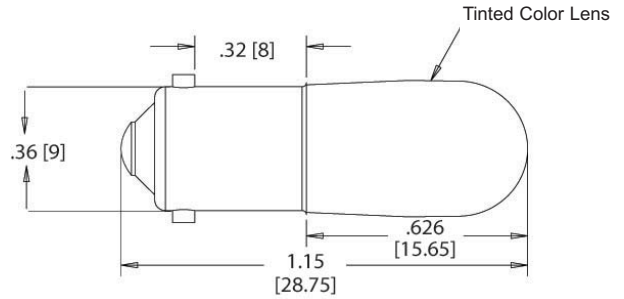
# Dialight

## 586 VIP Series

Variable Input 6-36 Volts DC

## Single Chip BASED LED

T 3 1/4 MINIATURE BAYONET BASE (BA9S)



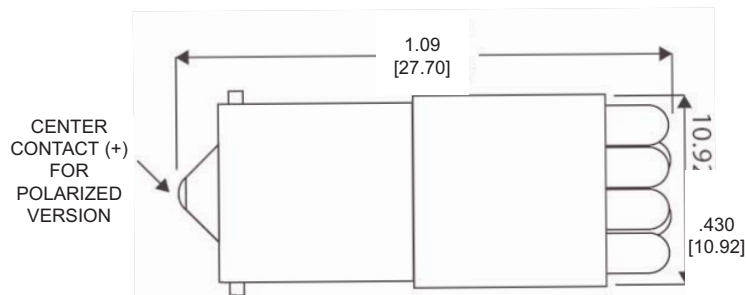
Measurements are typical  
Dimensions are inches [mm]

### T 3 1/4 MINIATURE BAYONET (BA9S) NON-POLARIZED MULTI-VOLTAGE INPUT

Part Number	Color	Dominant Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP. (mA)	Intensity TYP. (mcd)	RoHS Compliant
586-2401-220F	Red	630	6-36	10	1000	✓
586-2402-220F	Green	525	6-36	10	1500	✓
586-2403-220F	Yellow	592	6-36	10	550	✓
586-2405-220F	Blue	470	6-36	10	200	✓
586-2406-220F	White	*	6-36	10	650	✓

\* Color Coordinates: x = 0.330, y = 0.365

# 586 Series - Sunlight Readable CLUSTER BASED LED T3 1/4 Miniature Bayonet (BA9s)



*Measurements are typical  
Dimensions are inches [mm]*

## POLARIZED

Part Number	Color	Peak Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP.-(mA)	Intensity TYP.-(mcd)	RoHS Compliant
586-6401-101F	Red	630	6	100	1000	✓
586-6402-101F	Green	526	6	90	3800	✓
586-6403-101F	Yellow	592	6	100	2000	✓
586-6405-101F	Blue	472	6	90	850	✓
586-6406-101F	White	*	6	90	4800	✓
586-6401-103F	Red	630	14	50	1000	✓
586-6402-103F	Green	526	14	40	3100	✓
586-6403-103F	Yellow	592	14	50	2000	✓
586-6405-103F	Blue	472	14	40	685	✓
586-6406-103F	White	*	14	40	4800	✓
586-6401-105F	Red	630	28	17	1000	✓
586-6402-105F	Green	526	28	13	3600	✓
586-6403-105F	Yellow	592	28	17	2000	✓
586-6405-105F	Blue	472	28	13	780	✓
586-6406-105F	White	*	28	13	4200	✓

## NON-POLARIZED

Part Number	Color	Peak Wavelength (nm)	Nominal Voltage	Forward Current TYP.-(mA)	Intensity TYP.-(mcd)	RoHS Compliant
586-6401-201F	Red	630	6 VDC	100	1000	✓
586-6402-201F	Green	526	6 VDC	70	3400	✓
586-6403-201F	Yellow	592	6 VDC	100	2000	✓
586-6405-201F	Blue	472	6 VDC	70	685	✓
586-6406-201F	White	*	6 VDC	70	4000	✓
586-6401-203F	Red	630	14 VDC	50	1000	✓
586-6402-203F	Green	526	14 VDC	40	3400	✓
586-6403-203F	Yellow	592	14 VDC	50	2000	✓
586-6405-203F	Blue	472	14 VDC	40	685	✓
586-6406-203F	White	*	14 VDC	40	4000	✓
586-6401-205F	Red	630	28 VDC	18	1000	✓
586-6402-205F	Green	526	28 VDC	11	3400	✓
586-6403-205F	Yellow	592	28 VDC	18	2000	✓
586-6405-205F	Blue	472	28 VDC	11	685	✓
586-6406-205F	White	*	28 VDC	11	4000	✓
586-6401-206F	Red	630	120 VAC	9	500	✓
586-6402-206F	Green	526	120 VAC	9	2400	✓
586-6403-206F	Yellow	592	120 VAC	9	1000	✓
586-6405-206F	Blue	472	120 VAC	9	565	✓
586-6406-206F	White	*	120 VAC	9	3000	✓

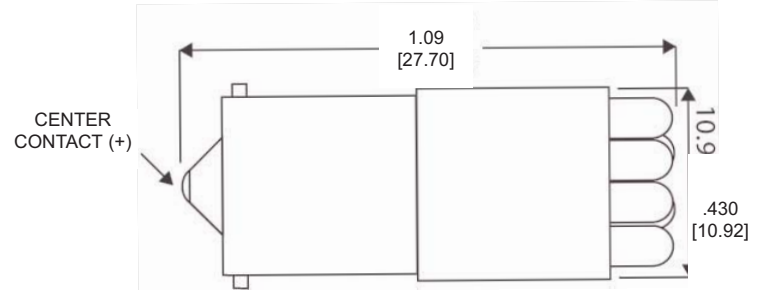


# Dialight

## 585 Series

### CLUSTER BASED LED

### T3 1/4 Miniature Bayonet (BA9s)



Measurements are typical  
Dimensions are inches [mm]

### POLARIZED

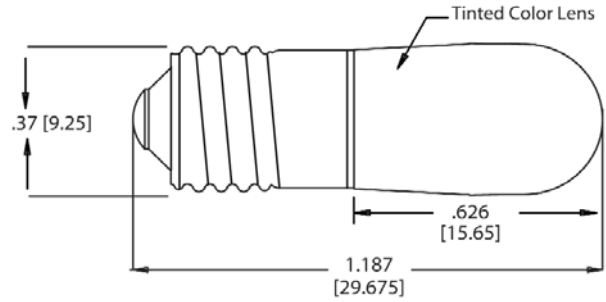
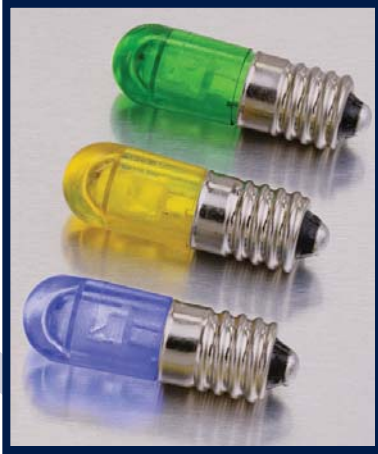
Part Number	Color	Peak Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP.-(mA)	Intensity TYP.-(mcd)
585-5211	Red	660	6	60	480
585-5311	Green	565	6	60	420
585-5511	Yellow	592	6	90	1800
585-5213	Red	660	14	40	480
585-5313	Green	565	14	40	420
585-5513	Yellow	592	14	60	1800
585-5215	Red	660	28	20	560
585-5315	Green	565	28	20	490
585-5515	Yellow	592	28	30	2100

### NON-POLARIZED

Part Number	Color	Peak Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP.-(mA)	Intensity TYP.-(mcd)
585-5223	Red	660	14	40	480
585-5323	Green	565	14	40	420
585-5523	Yellow	592	14	60	1800
585-5225	Red	660	28	20	560
585-5325	Green	565	28	20	490
585-5525	Yellow	592	28	30	2100
585-5256	Red	660	120 VAC	9	252
585-5356	Green	565	120 VAC	9	220
585-5556	Yellow	592	120 VAC	9	945

# Dialight

## 586 Series Single Chip BASED LED T3 1/4 MINIATURE SCREW (E10)



Measurements are typical  
Dimensions are inches [mm]

### T3 1/4 MINIATURE SCREW (E10) NON-POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-2701-201F	Red	630	6	15	1050	✓
586-2702-201F	Green	525	6	15	1650	✓
586-2703-201F	Yellow	592	6	15	1275	✓
586-2705-201F	Blue	470	6	15	487	✓
586-2706-201F	White	*	6	15	825	✓
586-2701-203F	Red	630	14	15	1050	✓
586-2702-203F	Green	525	14	15	1650	✓
586-2703-203F	Yellow	592	14	15	1275	✓
586-2705-203F	Blue	470	14	15	487	✓
586-2706-203F	White	*	14	15	825	✓
586-2701-205F	Red	630	28	7.5	525	✓
586-2702-205F	Green	525	28	7.5	825	✓
586-2703-205F	Yellow	592	28	7.5	637	✓
586-2705-205F	Blue	470	28	7.5	243	✓
586-2706-205F	White	*	28	7.5	412	✓

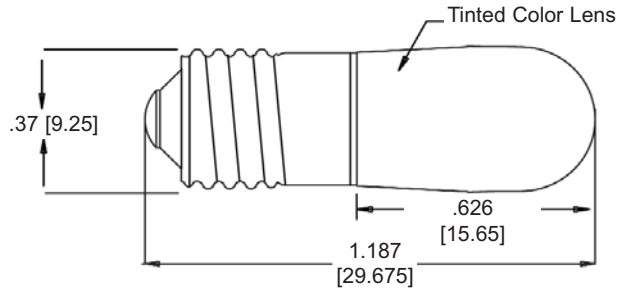
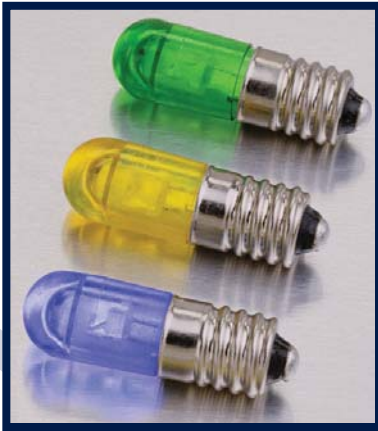
# Dialight

## 586 VIP Series

Variable Input 6-36 Volts DC

## Single Chip BASED LED

T3 1/4 MINIATURE SCREW BASE (E10)



Measurements are typical  
Dimensions are inches [mm]

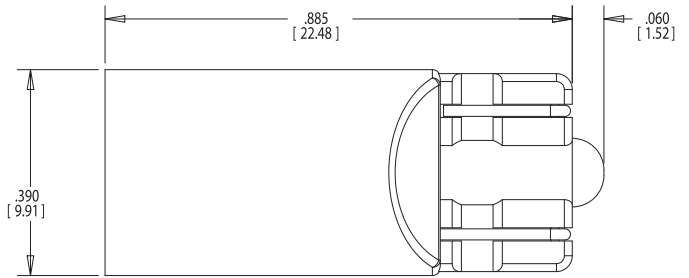
### T3 1/4 MINIATURE SCREW (E10) NON-POLARIZED MULTI-VOLTAGE INPUT

Part Number	Color	Dominant Wavelength (nm)	Nominal Voltage (VDC)	Forward Current TYP. (mA)	Intensity TYP. (mcd)	RoHS Compliant
586-2701-220F	Red	630	6-36	10	1000	✓
586-2702-220F	Green	525	6-36	10	1500	✓
586-2703-220F	Yellow	592	6-36	10	550	✓
586-2705-220F	Blue	470	6-36	10	200	✓
586-2706-220F	White	*	6-36	10	650	✓

\* Color Coordinates: x = 0.330, y = 0.365

# Dialight

## 586 Series BASED LED T3 1/4 WEDGE (T10)



*Measurements are typical  
Dimensions are inches [mm]*

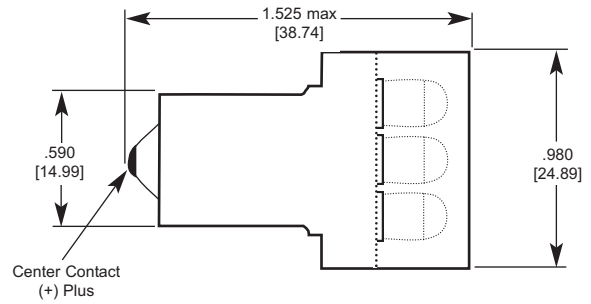
### T3 1/4 WEDGE NON-POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-2201-201F	Red	615	6	69	770	✓
586-2202-201F	Green	528	6	30	300	✓
586-2203-201F	Yellow	591	6	69	550	✓
586-2205-201F	Blue	470	6	30	90	✓
586-2206-201F	White	*	6	30	630	✓
586-2201-202F	Red	615	12	37	820	✓
586-2202-202F	Green	528	12	19	380	✓
586-2203-202F	Yellow	591	12	37	590	✓
586-2205-202F	Blue	470	12	19	115	✓
586-2206-202F	White	*	12	19	800	✓
586-220A-202F	White/Yellow	* / 591	12	25	725	✓
586-220B-202F	White/Orange	* / 610	12	25	775	✓
586-2201-203F	Red	615	14	41	910	✓
586-2202-203F	Green	528	14	24	480	✓
586-2203-203F	Yellow	591	14	41	650	✓
586-2205-203F	Blue	470	14	24	145	✓
586-2206-203F	White	*	14	24	1000	✓
586-220A-203F	White/Yellow	* / 591	14	25	725	✓
586-220B-203F	White/Orange	* / 610	14	25	775	✓
586-2201-204F	Red	615	24	19	850	✓
586-2202-204F	Green	528	24	12	480	✓
586-2203-204F	Yellow	591	24	19	610	✓
586-2205-204F	Blue	470	24	12	145	✓
586-2206-204F	White	*	24	12	1000	✓
586-220A-204F	White/Yellow	* / 591	24	14	810	✓
586-220B-204F	White/Orange	* / 610	24	14	870	✓

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

# Dialight

## 586 Series CLUSTER BASED LED 15mm BAYONET (BA15s)



*Measurements are typical*

*Dimensions are inches [mm]*

### 15mm BAYONET (BA15s) - POLARIZED

PART NUMBER	COLOR	PEAK WAVELENGTH (nm)	VOLTAGE (VDC)	CURRENT TYP.-(mA)	INTENSITY TYP.-(mcd)	RoHS COMPLIANT
586-4601-103F	Red	639	14	30	17325	✓
586-4602-103F	Green	525	14	20	21000	✓
586-4603-103F	Yellow	594	14	30	17325	✓
586-4605-103F	Blue	470	14	20	6300	✓
586-4606-103F	White	*	14	20	23800	✓
586-4601-105F	Red	639	28	30	17325	✓
586-4602-105F	Green	525	28	20	21000	✓
586-4603-105F	Yellow	594	28	30	17325	✓
586-4605-105F	Blue	470	28	20	6300	✓
586-4606-105F	White	*	28	20	23800	✓





# Incandescent Lamp/Based LED Cross Reference

Incandescent Lamp #	Size	Base Style	Operating Voltage (VDC)	Configuration	Dialight Based LED Part Number				
					Red	Green	Yellow	Blue	White
16	T1 3/4	Wedge Base	6	Polarized	586-1A01-101	586-1A02-101	586-1A03-101	586-1A05-101	586-1A06-101
				Non-Polarized	586-1201-201	586-1202-201	586-1203-201	586-1205-201	586-1206-201
17	T1 3/4	Wedge Base	28	Polarized	586-1A01-105	586-1A02-105	586-1A03-105	586-1A05-105	586-1A06-105
				Non-Polarized	586-1201-205	586-1202-205	586-1203-205	586-1205-205	586-1206-205
18	T1 3/4	Wedge Base	14	Polarized	586-1A01-103	586-1A02-103	586-1A03-103	586-1A05-103	586-1A06-103
				Non-Polarized	586-1201-203	586-1202-203	586-1203-203	586-1205-203	586-1206-203
24	T2	Telephone Slide (Type 3)	24	Non-Polarized	586-3501-204	586-3502-204	586-3503-204	586-3505-204	586-3506-204
37	T1 3/4	Wedge Base	14	Polarized	586-1A01-103	586-1A02-103	586-1A03-103	586-1A05-103	586-1A06-103
				Non-Polarized	586-1201-203	586-1202-203	586-1203-203	586-1205-203	586-1206-203
40, 46	T3 1/4	Miniature Screw	6	Non-Polarized	586-2701-201	586-2702-201	586-2703-201	586-2705-201	586-2706-201
44, 47	T3 1/4	Miniature Bayonet (BA9s)	6	Non-Polarized High Brightness	586-6401-201	586-6402-201	586-6403-201	586-6405-201	586-6406-201
				Non-Polarized	586-2401-201	586-2402-201	586-2403-201	586-2405-201	586-2406-201
52	T3 1/4	Miniature Screw	14	Non-Polarized	586-2701-203	586-2702-203	586-2703-203	586-2705-203	586-2706-203
56	T1 3/4	Wedge Base	6	Polarized	586-1A01-101	586-1A02-101	586-1A03-101	586-1A05-101	586-1A06-101
				Non-Polarized	586-1201-201	586-1202-201	586-1203-201	586-1205-201	586-1206-201
67	G-6	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103
70, 73, 74	T1 3/4	Wedge Base	14	Polarized	586-1A01-103	586-1A02-103	586-1A03-103	586-1A05-103	586-1A06-103
				Non-Polarized	586-1201-203	586-1202-203	586-1203-203	586-1205-203	586-1206-203
79, 84	T1 3/4	Wedge Base	6	Polarized	586-1A01-101	586-1A02-101	586-1A03-101	586-1A05-101	586-1A06-101
				Non-Polarized	586-1201-201	586-1202-201	586-1203-201	586-1205-201	586-1206-201
85	T1 3/4	Wedge Base	28	Polarized	586-1A01-105	586-1A02-105	586-1A03-105	586-1A05-105	586-1A06-105
				Non-Polarized	586-1201-205	586-1202-205	586-1203-205	586-1205-205	586-1206-205
86	T1 3/4	Wedge Base	6	Polarized	586-1A01-101	586-1A02-101	586-1A03-101	586-1A05-101	586-1A06-101
				Non-Polarized	586-1201-201	586-1202-201	586-1203-201	586-1205-201	586-1206-201
93, 97, 98, 105	G-6/S-8	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103
124	T3 1/4	Wedge Base	14	Non-Polarized	586-2201-203	586-2202-203	586-2203-203	586-2205-203	586-2206-203
152	T3 1/4	Wedge Base	28	Non-Polarized	586-2201-205	586-2202-205	586-2203-205	586-2205-205	586-2206-205
158, 161, 168	T3 1/4	Wedge Base	14	Non-Polarized	586-2201-203	586-2202-203	586-2203-203	586-2205-203	586-2206-203
159	T3 1/4	Wedge Base	6	Non-Polarized	586-2201-201	586-2202-201	586-2203-201	586-2205-201	586-2206-201
181	T3 1/4	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
184, 193, 194	T3 1/4	Wedge Base	14	Non-Polarized	586-2201-203	586-2202-203	586-2203-203	586-2205-203	586-2206-203
199	S-8	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103

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

(see notes on page 21)



Incandescent Lamp #	Size	Base Style	Operating Voltage (VDC)	Configuration	Dialight Based LED Part Number				
					Red	Green	Yellow	Blue	White
216	T3 ¼	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
259	T3 ¼	Wedge Base	6	Non-Polarized	586-2201-201	586-2202-201	586-2203-201	586-2205-201	586-2206-201
303, 305, 307, 315	S-8	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
313	T3 ¼	Miniature Bayonet (BA9s)	28	Non-Polarized High Brightness	586-6401-205	586-6402-205	586-6403-205	586-6405-205	586-6406-205
				Non-Polarized	586-2401-205	586-2402-205	586-2403-205	586-2405-205	586-2406-205
327	T1 ¾	Midget Flange	28	Polarized	586-1101-105	586-1102-105	586-1103-105	586-1105-105	586-1106-105
328	T1 ¾	Midget Flange	6	Polarized	586-1101-101	586-1102-101	586-1103-101	586-1105-101	586-1106-101
330	T1 ¾	Midget Flange	14	Polarized	586-1101-103	586-1102-103	586-1103-103	586-1105-103	586-1106-103
345, 349, 350	T1 ¾	Midget Flange	6	Polarized	586-1101-101	586-1102-101	586-1103-101	586-1105-101	586-1106-101
376	T1 ¾	Midget Flange	28	Polarized	586-1101-105	586-1102-105	586-1103-105	586-1105-105	586-1106-105
377, 380, 381	T1 ¾	Midget Flange	6	Polarized	586-1101-101	586-1102-101	586-1103-101	586-1105-101	586-1106-101
382	T1 ¾	Midget Flange	14	Polarized	586-1101-103	586-1102-103	586-1103-103	586-1105-103	586-1106-103
385, 387	T1 ¾	Midget Flange	28	Polarized	586-1101-105	586-1102-105	586-1103-105	586-1105-105	586-1106-105
394	T1 ¾	Midget Flange	14	Polarized	586-1101-103	586-1102-103	586-1103-103	586-1105-103	586-1106-103
400, 464, 585, 655, 656, 657	T3 ¼	Wedge Base	28	Non-Polarized	586-2201-205	586-2202-205	586-2203-205	586-2205-205	586-2206-205
658	T3 ¼	Wedge Base	14	Non-Polarized	586-2201-203	586-2202-203	586-2203-203	586-2205-203	586-2206-203
444, 447	T3 ¼	Wedge Base	6	Non-Polarized	586-2201-201	586-2202-201	586-2203-201	586-2205-201	586-2206-201
502	T3 ¼	Miniature Screw	6	Non-Polarized	586-2701-201	586-2702-201	586-2703-201	586-2705-201	586-2706-201
555	T3 ¼	Wedge Base	6	Non-Polarized	586-2201-201	586-2202-201	586-2203-201	586-2205-201	586-2206-201
623	G-6	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
631	G-6	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103
755	T3 ¼	Miniature Bayonet (BA9s)	6	Non-Polarized High Brightness	586-6401-201	586-6402-201	586-6403-201	586-6405-201	586-6406-201
				Non-Polarized	586-2401-201	586-2402-201	586-2403-201	586-2405-201	586-2406-201
756	T3 ¼	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
757	T3 ¼	Miniature Bayonet (BA9s)	28	Non-Polarized High Brightness	586-6401-205	586-6402-205	586-6403-205	586-6405-205	586-6406-205
				Non-Polarized	586-2401-205	586-2402-205	586-2403-205	586-2405-205	586-2406-205
1003, 1093, 1095, 1141, 1155, 1156, 1159	B-6/S-8	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103

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(see notes on page 21)

# Incandescent Lamp/Based LED Cross Reference

Incandescent Lamp #	Size	Base Style	Operating Voltage (VDC)	Configuration	Dialight Based LED Part Number				
					Red	Green	Yellow	Blue	White
1203, 1251	S-8	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
1295	S-8	Single Contact Bayonet (BA15s)	14	Polarized	586-4601-103	586-4602-103	586-4603-103	586-4605-103	586-4606-103
1308	B-6	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
1446, 1481, 1487	T3 ¼	Miniature Screw	14	Non-Polarized	586-2701-203	586-2702-203	586-2703-203	586-2705-203	586-2706-203
1488	T3 ¼	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
1591, 1665, 1683, 1691	S-8	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
1813, 1815	T3 ¼	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
1819, 1820	T3 ¼	Miniature Bayonet (BA9s)	28	Non-Polarized High Brightness	586-6401-205	586-6402-205	586-6403-205	586-6405-205	586-6406-205
				Non-Polarized	586-2401-205	586-2402-205	586-2403-205	586-2405-205	586-2406-205
1821	T3 ¼	Miniature Screw	28	Non-Polarized	586-2701-205	586-2702-205	586-2703-205	586-2705-205	586-2706-205
1829, 1843	T3 ¼	Miniature Bayonet (BA9s)	28	Non-Polarized High Brightness	586-6401-205	586-6402-205	586-6403-205	586-6405-205	586-6406-205
				Non-Polarized	586-2401-205	586-2402-205	586-2403-205	586-2405-205	586-2406-205
1847, 1850, 1866	T3 ¼	Miniature Bayonet (BA9s)	6	Non-Polarized High Brightness	586-6401-201	586-6402-201	586-6403-201	586-6405-201	586-6406-201
				Non-Polarized	586-2401-201	586-2402-201	586-2403-201	586-2405-201	586-2406-201
1864, 1873	T3 ¼	Miniature Bayonet (BA9s)	28	Non-Polarized High Brightness	586-6401-205	586-6402-205	586-6403-205	586-6405-205	586-6406-205
				Non-Polarized	586-2401-205	586-2402-205	586-2403-205	586-2405-205	586-2406-205
1889, 1891, 1892, 1893, 1894, 1898	T3 ¼	Miniature Bayonet (BA9s)	14	Non-Polarized High Brightness	586-6401-203	586-6402-203	586-6403-203	586-6405-203	586-6406-203
				Non-Polarized	586-2401-203	586-2402-203	586-2403-203	586-2405-203	586-2406-203
2232, 2233	S-8	Single Contact Bayonet (BA15s)	28	Polarized	586-4601-105	586-4602-105	586-4603-105	586-4605-105	586-4606-105
2306	T1 ¾	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
2312, 2314	T1 ¾	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
2323	T1 ¾	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
2324, 2325	T1 ¾	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105

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(see notes on page 21)



Incandescent Lamp #	Size	Base Style	Operating Voltage (VDC)	Configuration	Dialight Based LED Part Number				
					Red	Green	Yellow	Blue	White
2329	T1 3/4	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
2332, 2335	T1 3/4	Bi-Pin	14	Polarized	586-1301-103	586-1302-103	586-1303-103	586-1305-103	586-1306-103
2337	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
2342	T1 3/4	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
3149	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
3708	T3 1/4	Miniature Screw	6	Non-Polarized	586-2701-201	586-2702-201	586-2703-201	586-2705-201	586-2706-201
6034	T1 3/4	Midget Flange	28	Polarized	586-1101-105	586-1102-105	586-1103-105	586-1105-105	586-1106-105
7327	T1 3/4	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
7328	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
7330	T1 3/4	Bi-Pin	14	Polarized	586-1301-103	586-1302-103	586-1303-103	586-1305-103	586-1306-103
7332, 7333, 7335	T1 3/4	Midget Flange	6	Polarized	586-1101-101	586-1102-101	586-1103-101	586-1105-101	586-1106-101
7341	T1 3/4	Midget Flange	28	Polarized	586-1101-105	586-1102-105	586-1103-105	586-1105-105	586-1106-105
7349, 7361, 7364, 7368	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
7374, 7376	T1 3/4	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
7377, 7380, 7381	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101
7382	T1 3/4	Bi-Pin	14	Polarized	586-1301-103	586-1302-103	586-1303-103	586-1305-103	586-1306-103
7387, 7876	T1 3/4	Bi-Pin	28	Polarized	586-1301-105	586-1302-105	586-1303-105	586-1305-105	586-1306-105
7945	T1 3/4	Bi-Pin	6	Polarized	586-1301-101	586-1302-101	586-1303-101	586-1305-101	586-1306-101

**Notes -**

- ▲ To maximize light output the LED emitting color should match lens or filter
- ▲ Based LEDs are designed for specified operating voltage
- ▲ Based LEDs listed are for typical applications, some applications may require modifications to the products
- ▲ Additional products are available. Contact factory for details.

# UNDERSTANDING BASED LEDs

## A COMPARISON BETWEEN LED AND INCANDESCENT

### LED

Light produced through luminescence

Typical 100K hours of life

Semiconductor based light

Constant current

Epoxy encapsulation is rugged under exposure to shock and vibration

Up to 90% less power required

Responds 0.2 seconds faster

Low maintenance

### INCANDESCENT

Generate heat to produce light

Typical 2K hours of operation

Light source being burned away

Subject to inrush current

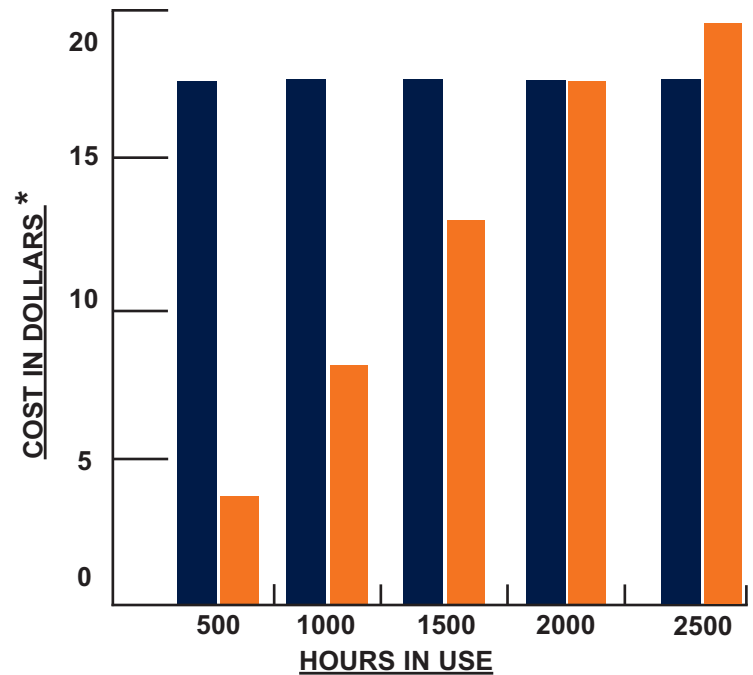
Susceptible to catastrophic failures

Uses high power

Slow response

Frequent maintenance

## COST COMPARISON BETWEEN LED AND INCANDESCENT BULBS



■ Based LED ■ Incandescent Bulbs

\*Cost includes -replacement of bulb, labor, and energy savings

### 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. 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

Since lens caps act as filters for the light emitted from the based LED, it is important to match the emitting color of the LED. If not matched properly, the overall light output may be substantially reduced. Dialight recommends using transparent lenses which will optimize the light output.



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**Based LED Selector Guide Ver 1**