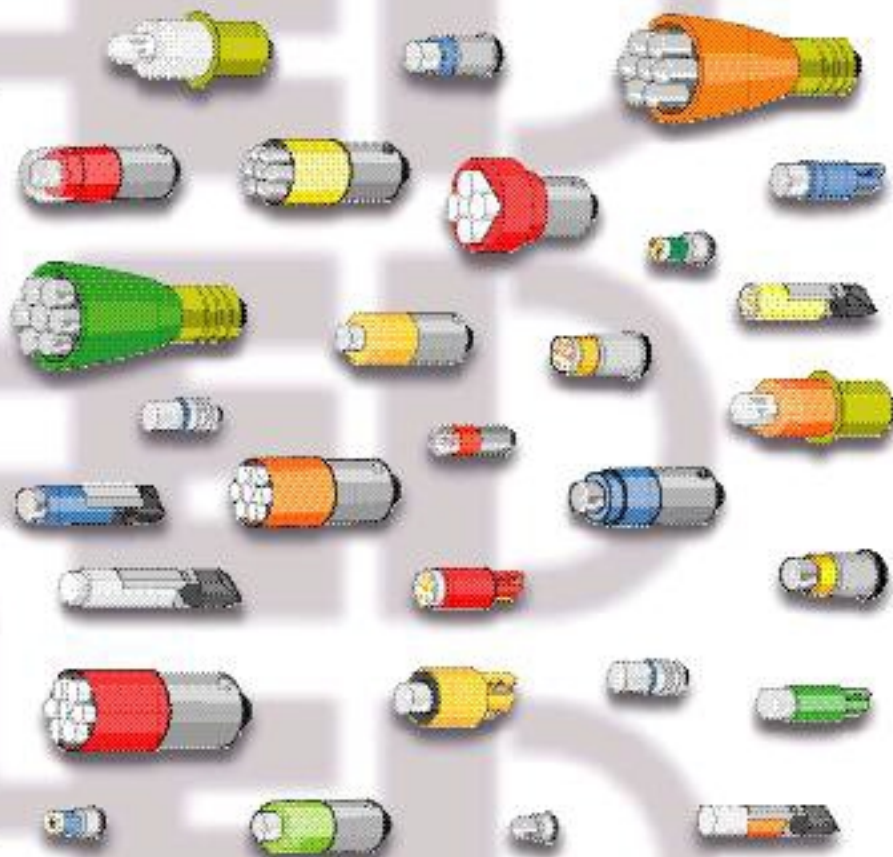


miniature based

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Miniature Based LED Lamps



LED[®]
LEDTRONICS, INC.
THE FUTURE OF LIGHT

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www.DataSheet4U.com

Once limited to simple status indicators, Light Emitting Diodes (LEDs) now play prominent roles in back lighting, panel indication, decorative illumination, emergency lighting, animated signage, etc.... The emergence of LEDs as a viable alternative to incandescent lighting can be attributed to new manufacturing technologies, packaging innovations and an increasing number of colors. These factors along with the growing awareness of the advantages of LEDs (e.g., a life span measured in years not hours, vivid sunlight-visible colors and low power requirements) have engineers, product designers, purchasing agents and component vendors viewing LEDs in a whole new light.

For many applications LED lamps are superior to incandescent lighting. So why is it that in tens of millions of switches, indicators, control panels, signs, annunciators, displays, decor lights and dozens of other applications, design engineers still specify incandescent technology? It might be that they're just a few years behind what's really happening in LED illumination.

Although advances made in LED technology in the past few years have dramatically broadened the applications for these rugged little light sources, it wasn't that long ago that red was the only "daylight-visible" colored LED. And that wasn't the only thing limiting their use!

Unlike incandescent bulbs that give off the full spectrum of light in a spherical pattern, LEDs emit a focused beam of a single wavelength (color) in only one direction, in a variety of angles. For many applications, such as indicators or switch illuminators, this is not a problem, but it took the development of multi-chip arrays and high-flux LED chips to begin to achieve the effect of an incandescent filament.

Major advancements in LED technology have taken place in recent years such as development of new "doping" technologies that increase LED light output by as much as 20 times over earlier generations, and allow the production of daylight-visible LEDs in virtually any color of the spectrum. In addition to red, yellow, and amber/orange, LEDs are now available in many colors from leaf green to ultra blue. Even white light, long thought to be an impossibility, is now available in three different shades as a light-emitting diode.

The efficiency of LEDs is most apparent in applications requiring color. Light from a typical incandescent bulb must be filtered so that only light from a particular part of the spectrum (e.g., red, amber or green, etc...) for example—is visible. While LEDs deliver 100 percent of their energy as colored light, incandescent bulbs waste 90 percent or more of their energy in light blocked by the colored lens or filter. Incandescent bulbs also waste 80 percent to 90 percent of their energy on heat generation to reach the temperature for which (Kelvin scale) they are designed.

The point is that what was once a fairly marginal light source isn't marginal any more. In many applications, LEDs exceed the energy available from incandescent bulbs and offer significant additional benefits making LED clusters and lamps as friendly to the environment as they are to the operating budget.

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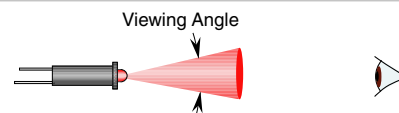
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| | |
|---|---|
| Will the Panel LED replace another manufacturers parts? | Dialight, Data Display Products, Industrial Devices Inc., etc... If so, what is the part number? |
| Mounting Type? | Snap-in, Snap-in with mount clip, Bolt-on, Relampable, etc... |
| Mounting Diameter & Panel Thickness? | What is the hole diameter into which the lamp assembly must fit? How thick is the wall of the panel? |
| Operating Voltage and Polarity? | Actual open line voltage? AC or DC? Does it fluctuate? Indicate the Minimum/Maximum values? |
| Terminal Type? | Are solid wire (0.02 sq.), pigtail flexible wire lead (24AWG), quick disconnect (3/16 rectangular), solder lug, turret, or screw-on type terminals preferred? |
| Viewing Distance? | How far is the operator / technician when the indicator must be visible? 5 to 10 feet, 20 to 50 feet, 100 to 200 feet, 500 to 1000 feet? |
| Viewing Angle? | 0 to 12 degrees – Narrow Beam 30 to 60 degrees – Medium Beam 100 to 160 degrees – Wide Beam |
| LED Color? | Ultra Red, Hi-Efficiency Red, Standard Red, Orange, Yellow, Cool white, Ultra Green, Aqua Green, Blue |
| Lens Type? | Diffused lenses are used in applications where direct viewing or indication is needed. Clear lenses are used in application where illumination is needed. Is the lens fluted? |
| Ambient Lighting? | Standard office lighting. High ceiling factory lighting. Indirect sunlight. Direct sunlight |
| Potential Quality and Target Price? | How many pieces are required within a given time frame? How much budgetary funding is allowed for this item or project? |





Based LED Questionnaire

Date _____

About you

The following information assists LEDtronics in determining the most appropriate FREE LED product SAMPLE. Fax to (310) 534-1424 for fast response.

Name: _____ Phone: () _____
 Company: _____ Fax: () _____
 Address: _____ M/S: _____
 City: _____ State: _____ Zip: _____
 E-Mail: _____

About your company

What does your company manufacture _____

Is your company ☐ Govt/Military ☐ Govt Contractor ☐ OEM ☐ Distributor ☐ Utility ☐ MRO

Requirement is for ☐ R&D ☐ Replacement ☐ New Application ☐ Other _____

Total annual quantity _____

Target price _____ Time frame ☐ Immediate ☐ 3 months ☐ 6 months

For internal use only

SIC code: _____

Originator: _____

Rep: _____

Current Customer ☐ Yes ☐ No

About your application



Incandescent/LED No. _____ mAmps _____ Design Volts _____ MSCD _____

Base size ☐ T1 ☐ T2 ☐ T1^{3/4} ☐ T3^{3/4} ☐ S6 ☐ 15mm ☐ Other _____



Base type ☐ Flange ☐ Bayonet ☐ Wedge ☐ Bi-pin ☐ Screw ☐ Groove ☐ Other _____

Operating voltage (max) ☐ 5V ☐ 12V ☐ 24V ☐ 28V ☐ 120VAC ☐ Other _____



Voltage (type) ☐ AC ☐ DC ☐ Bipolar Polarity of center contact ☐ + ☐ -



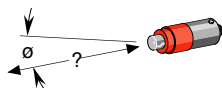
Lens color ☐ Red ☐ Orange ☐ Amber ☐ Yellow ☐ White ☐ Green ☐ Blue ☐ Other _____



Lens type ☐ Clear ☐ Diffused Lens size ☐ 16mm ☐ 22mm ☐ 30mm ☐ Other _____

Lens shape ☐ Circular ☐ Square ☐ Rectangular

☐ Jelly-jar ☐ Other _____



Ambient lighting conditions ☐ Indirect sunlight ☐ Direct sun ☐ Office ☐ Lowlight ☐ Darkroom

Maximum viewing distance desired ☐ 1 ft ☐ 5 ft ☐ 10 ft ☐ 20 ft ☐ 50 ft ☐ Other _____

Maximum viewing angle desired ☐ Straight on ☐ 30° ☐ 60° ☐ 90° ☐ Other _____

Distance between top of lamp and lens/filter ☐ 1/8" ☐ 1/4" ☐ 1/2" ☐ Other _____



Is an external resistor in series with the lamp ☐ Yes ☐ No If yes, Ohms _____ Watts _____



What is the source voltage if higher than the operating voltage of the lamp _____

Would like updated literature ☐ Yes ☐ No More info on: ☐ Based ☐ Panel ☐ PCB ☐ Discrete ☐ Other _____

Applicable statutory and regulatory requirements ☐ Yes ☐ No Doc. No. _____

Additional Notes/Sketches

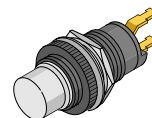
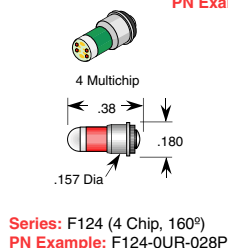
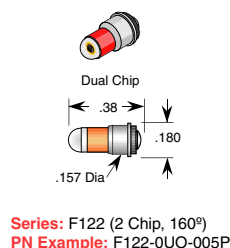
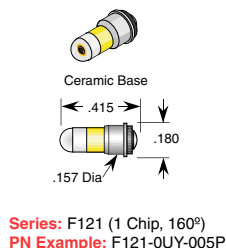
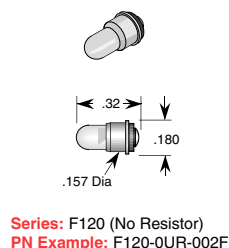


T1(3mm) Sub-Midget Based LEDs

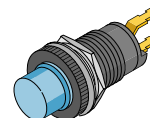
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0UR-005P | 5V | 20 | 100 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Standard (65°) Beam Intensity 180 mcd/30 Ft.Cd |
| | 7241 | FF120-0UR-018P | 18V | 15 | 50 | | |
| | 6839 | FF120-0UR-024P | 24V | 12 | 33 | | |
| | 6839 | FF120-0UR-028P | 28V | 12 | 33 | | |
| 612nm Super Orange InGaAlP F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0UO-005P | 5V | 20 | 85 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Medium (50°) Beam Intensity 350 mcd |
| | 7241 | FF120-0UO-018P | 18V | 15 | 64 | | |
| | 6839 | FF120-0UO-024P | 24V | 12 | 51 | | |
| | 6839 | FF120-0UO-028P | 28V | 12 | 51 | | |
| 595nm Super Yellow InGaAlP F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0UY-005P | 5V | 20 | 32 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Medium (50°) Beam Intensity 1K mcd |
| | 7241 | FF120-0UY-018P | 18V | 15 | 21 | | |
| | 6839 | FF120-0UY-024P | 24V | 12 | 15 | | |
| | 6839 | FF120-0UY-028P | 28V | 12 | 15 | | |
| 8000K Cool White SiC/GaN F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0CW-005P | 5V | 15 | 150 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Std. (50°) Beam Intensity 650 mcd/75 Ft. cd |
| | 7241 | FF120-0CW-018P | 18V | 15 | 150 | | |
| | 6839 | FF120-0CW-024P | 24V | 10 | 100 | | |
| | 6839 | FF120-0CW-028P | 28V | 10 | 100 | | |
| 570nm Lime Green InGaAlP F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0UG-005P | 5V | 20 | 36 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Medium (50°) Beam Intensity 165 mcd @ 20 mA |
| | 7241 | FF120-0UG-018P | 18V | 15 | 27 | | |
| | 6839 | FF120-0UG-024P | 24V | 12 | 22 | | |
| | 6839 | FF120-0UG-028P | 28V | 12 | 22 | | |
| 525nm Aqua Green SiC/GaN F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0AG-005P | 5V | 15 | 200 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Narrow (15°) Beam Intensity 5K mcd/145 Ft.Cd |
| | 7241 | FF120-0AG-018P | 18V | 15 | 200 | | |
| | 6839 | FF120-0AG-024P | 24V | 10 | 150 | | |
| | 6839 | FF120-0AG-028P | 28V | 10 | 150 | | |
| 470nm Super Blue SiC/GaN F121 Ceramic Base FF120 | 682,685,714,718 | FF120-0PB-005P | 5V | 15 | 60 | 120° | Center Contact Polarity P = Positive N = Negative Replace FF120 With F120 Std. (15°) Beam Intensity 1.5K mcd/32 Ft.Cd @ 15 mA |
| | 7241 | FF120-0PB-018P | 18V | 15 | 60 | | |
| | 6839 | FF120-0PB-024P | 24V | 10 | 45 | | |
| | 6839 | FF120-0PB-028P | 28V | 10 | 45 | | |

All dimensions in inches. For millimeters multiply by 25.4

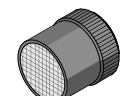
Options



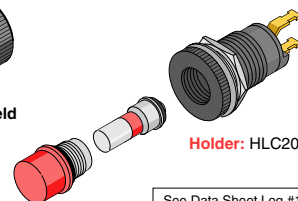
Series: HLD310 (Rear Mount)
PN Example: HLD310CW900-5V-P



Series: HLC310 (Front Mount)
PN Example: HLC310CB1K-5V-P



RFI EMI Shield







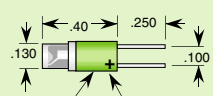


Lens: HL230

See Data Sheet Log #119 for Complete Information on Panel Mount LEDs

Log # 122A Rev 09-2000

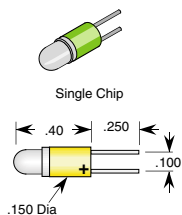


T1(3mm) Sub-Midget Bi-Pin Based LEDs

| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  BP121  BPF120  | 7265,7680,7714 | BPF120-0UR-005V | 5V | 20 | 100 | 120° | Contact Polarity V = DC only |
| | | BPF120-0UR-014V | 12/14V | 15 | 50 | | Replace BPF120 With BP120 Standard (65°) Beam Intensity 180 mcd/30 Ft.Cd @ 20 mA |
| | 7839 | BPF120-0UR-024V | 24V | 12 | 33 | | |
| | 7839 | BPF120-0UR-028V | 28V | 12 | 33 | | |
| 612nm Super Orange InGaAlP  BP121  BPF120  | 7265,7680,7714 | BPF120-0UO-005V | 5V | 20 | 85 | 120° | Contact Polarity V = DC only |
| | | BPF120-0UO-014V | 12/14V | 15 | 64 | | Replace BPF120 With BP120 Medium (50°) Beam Intensity 350 mcd @ 20 mA |
| | 7839 | BPF120-0UO-024V | 24V | 12 | 51 | | |
| | 7839 | BPF120-0UO-028V | 28V | 12 | 51 | | |
| 595nm Super Yellow InGaAlP  BP121  BPF120  | 7265,7680,7714 | BPF120-0UY-005V | 5V | 20 | 32 | 120° | Contact Polarity V = DC only |
| | | BPF120-0UY-014V | 12/14V | 15 | 21 | | Replace BPF120 With BP120 Medium (50°) Beam Intensity 1K mcd @ 20 mA |
| | 7839 | BPF120-0UY-024V | 24V | 12 | 15 | | |
| | 7839 | BPF120-0UY-028V | 28V | 12 | 15 | | |
| 8000K Cool White SiC/GaN  BP121  BPF120  | 7265,7680,7714 | BPF120-0CW-005V | 5V | 15 | 150 | 120° | Contact Polarity V = DC only |
| | | BPF120-0CW-014V | 12/14V | 15 | 150 | | Replace BPF120 With BP120 Std (50°) Beam Intensity 650 mcd/75 Ft. cd @ 15 mA |
| | 7839 | BPF120-0CW-024V | 24V | 10 | 100 | | |
| | 7839 | BPF120-0CW-028V | 28V | 10 | 100 | | |
| 570nm Lime Green InGaAlP  BP121  BPF120  | 7265,7680,7714 | BPF120-0UG-005V | 5V | 20 | 36 | 120° | Contact Polarity V = DC only |
| | | BPF120-0UG-014V | 12/14V | 15 | 27 | | Replace BPF120 With BP120 Medium (50°) Beam Intensity 165 mcd @ 20 mA |
| | 7839 | BPF120-0UG-024V | 24V | 12 | 22 | | |
| | 7839 | BPF120-0UG-028V | 28V | 12 | 22 | | |
| 525nm Aqua Green SiC/GaN  BP121  BPF120  | 7265,7680,7714 | BPF120-0AG-005V | 5V | 15 | 200 | 120° | Contact Polarity V = DC only |
| | | BPF120-0AG-014V | 12/14V | 15 | 200 | | Replace BPF120 With BP120 Narrow (15°) Beam Intensity 5K mcd/145 Ft.Cd @ 15 mA |
| | 7839 | BPF120-0AG-024V | 24V | 10 | 150 | | |
| | 7839 | BPF120-0AG-028V | 28V | 10 | 150 | | |
| 470nm Super Blue SiC/GaN  BP121  BPF120  | 7265,7680,7714 | BPF120-0PB-005V | 5V | 15 | 60 | 120° | Contact Polarity V = DC only |
| | | BPF120-0PB-014V | 12/14V | 15 | 60 | | Replace BPF120 With BP120 Std (15°) Beam Intensity 1.5K mcd/32 Ft.Cd @ 15 mA |
| | 7839 | BPF120-0PB-024V | 24V | 10 | 45 | | |
| | 7839 | BPF120-0PB-028V | 28V | 10 | 45 | | |

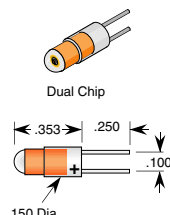
All dimensions in inches. For millimeters multiply by 25.4

Options



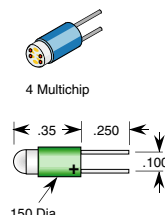
Single Chip

Series: BP120 (No Resistor)
PN Example: BP120-0UY-005B



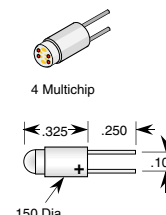
Dual Chip

Series: BP122 (2Chip 160°)
PN Example: BP122-0CO-005B



4 Multichip

Series: BP124 (4 Chip 160°)
PN Example: BP124-0UG-005B



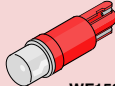
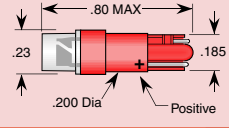

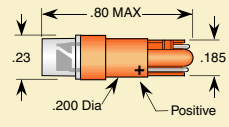

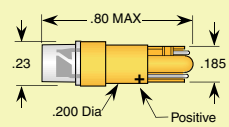
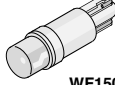
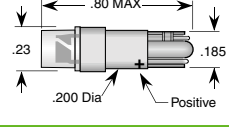

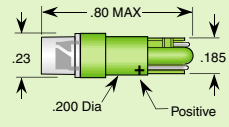

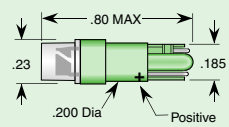

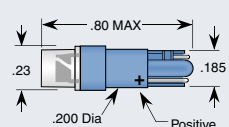
4 Multichip

Series: BP124 (4 Chip 160°)
PN Example: BP124-0CW-005B

Log # 122B Rev 09-2000

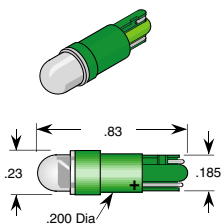


T1-1/2 (4.5mm) Midget Wedge Based LEDs

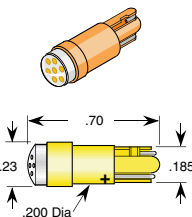
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|---|----------------------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  WF150 |  | 56,79,84,86 WF150-0UR-005V | 5V | 20 | 115 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | | 18,37,73,74 WF150-0UR-014V | 12/14V | 20 | 115 | | |
| | | 17, 85 WF150-0UR-024V | 24V | 15 | 85 | | |
| | | 17, 85 WF150-0UR-028V | 28V | 15 | 85 | | |
| 612nm Super Orange InGaAlP  WF150 |  | 56,79,84,86 WF150-0UO-005V | 5V | 20 | 130 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Narrow Beam (15°) Intensity 3.5K mcd @ 20 mA |
| | | 18,37,73,74 WF150-0UO-014V | 12/14V | 20 | 130 | | |
| | | 17, 85 WF150-0UO-024V | 24V | 15 | 98 | | |
| | | 17, 85 WF150-0UO-028V | 28V | 15 | 98 | | |
| 595nm Super Yellow InGaAlP  WF150 |  | 56,79,84,86 WF150-0UY-005V | 5V | 20 | 116 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Narrow Beam (15°) Intensity 3.2K mcd @ 20 mA |
| | | 18,37,73,74 WF150-0UY-014V | 12/14V | 20 | 116 | | |
| | | 17, 85 WF150-0UY-024V | 24V | 15 | 75 | | |
| | | 17, 85 WF150-0UY-028V | 28V | 15 | 75 | | |
| 8000K Cool White SiC/GaN  WF150 |  | 56,79,84,86 WF150-0CW-005V | 5V | 15 | 160 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Std. Beam (50°) Intensity 750 mcd/75 Ft. cd @ 15 mA |
| | | 18,37,73,74 WF150-0CW-014V | 12/14V | 15 | 160 | | |
| | | 17, 85 WF150-0CW-024V | 24V | 15 | 160 | | |
| | | 17, 85 WF150-0CW-028V | 28V | 15 | 160 | | |
| 570nm Lime Green InGaAlP  WF150 |  | 56,79,84,86 WF150-0UG-005V | 5V | 20 | 58 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Narrow Beam (12-15°) Intensity 1K mcd @ 20 mA |
| | | 18,37,73,74 WF150-0UG-014V | 12/14V | 20 | 58 | | |
| | | 17, 85 WF150-0UG-024V | 24V | 15 | 44 | | |
| | | 17, 85 WF150-0UG-028V | 28V | 15 | 44 | | |
| 525nm Aqua Green SiC/GaN  WF150 |  | 56,79,84,86 WF150-0AG-005V | 5V | 15 | 400 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Narrow Beam (15°) Intensity 7K mcd/250 Ft.Cd @ 15 mA |
| | | 18,37,73,74 WF150-0AG-014V | 12/14V | 15 | 400 | | |
| | | 17, 85 WF150-0AG-024V | 24V | 15 | 400 | | |
| | | 17, 85 WF150-0AG-028V | 28V | 15 | 400 | | |
| 470nm Super Blue SiC/GaN  WF150 |  | 56,79,84,86 WF150-0PB-005V | 5V | 15 | 125 | 120° | Contact Polarity V = DC only Replace WF150 With W150 Std. Beam (15°) Intensity 2K mcd/60 Ft.Cd @ 15 mA |
| | | 18,37,73,74 WF150-0PB-014V | 12/14V | 15 | 125 | | |
| | | 17, 85 WF150-0PB-024V | 24V | 15 | 125 | | |
| | | 17, 85 WF150-0PB-028V | 28V | 15 | 125 | | |

All dimensions in inches. For millimeters multiply by 25.4

Options



Series: W150
PN Example: W150-0AG-005B


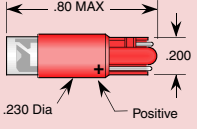

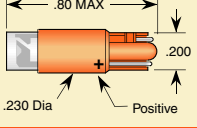
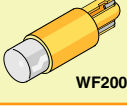
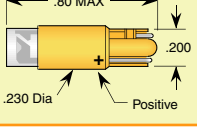

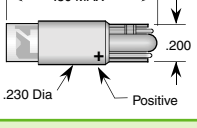

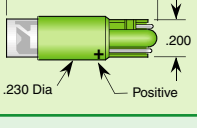

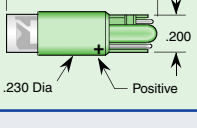

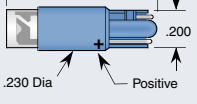


Series: W156
PN Example: W156-0UY-005B

Log # 122C Rev 09-2000

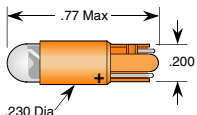


T1-3/4 (5mm) Midget Wedge Based LEDs

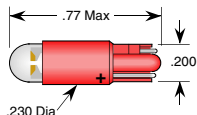
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|---|-------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  WF200 |  | 56,79,84,86 | WF200-0UR-005V | 5V | 20 | 115 | 120° Contact Polarity V = DC only Replace WF200 With W200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | | 18,37,73,74 | WF200-0UR-014V | 12/14V | 20 | 115 | |
| | | 17, 85 | WF200-0UR-024V | 24V | 15 | 85 | |
| | | 17, 85 | WF200-0UR-028V | 28V | 15 | 85 | |
| 612nm Super Orange InGaAlP  WF200 |  | 56,79,84,86 | WF200-0UO-005V | 5V | 20 | 130 | 120° Contact Polarity V = DC only Replace WF200 With W200 Narrow Beam (15°) Intensity 3.5K mcd @ 20 mA |
| | | 18,37,73,74 | WF200-0UO-014V | 12/14V | 20 | 130 | |
| | | 17, 85 | WF200-0UO-024V | 24V | 15 | 98 | |
| | | 17, 85 | WF200-0UO-028V | 28V | 15 | 98 | |
| 595nm Super Yellow InGaAlP  WF200 |  | 56,79,84,86 | WF200-0UY-005V | 5V | 20 | 116 | 120° Contact Polarity V = DC only Replace WF200 With W200 Narrow Beam (15°) Intensity 3.2K mcd @ 20 mA |
| | | 18,37,73,74 | WF200-0UY-014V | 12/14V | 20 | 116 | |
| | | 17, 85 | WF200-0UY-024V | 24V | 15 | 75 | |
| | | 17, 85 | WF200-0UY-028V | 28V | 15 | 75 | |
| 8000K Cool White SiC/GaN  WF200 |  | 56,79,84,86 | WF200-0CW-005V | 5V | 15 | 160 | 120° Contact Polarity V = DC only Replace WF200 With W200 Std. Beam (50°) Intensity 750 mcd/75 Ft. cd @ 15 mA |
| | | 18,37,73,74 | WF200-0CW-014V | 12/14V | 15 | 160 | |
| | | 17, 85 | WF200-0CW-024V | 24V | 15 | 160 | |
| | | 17, 85 | WF200-0CW-028V | 28V | 15 | 160 | |
| 570nm Lime Green InGaAlP  WF200 |  | 56,79,84,86 | WF200-0UG-005V | 5V | 20 | 58 | 120° Contact Polarity V = DC only Replace WF200 With W200 Narrow Beam (12-15°) Intensity 1K mcd @ 20 mA |
| | | 18,37,73,74 | WF200-0UG-014V | 12/14V | 20 | 58 | |
| | | 17, 85 | WF200-0UG-024V | 24V | 15 | 44 | |
| | | 17, 85 | WF200-0UG-028V | 28V | 15 | 44 | |
| 525nm Aqua Green SiC/GaN  WF200 |  | 56,79,84,86 | WF200-0AG-005V | 5V | 15 | 400 | 120° Contact Polarity V = DC only Replace WF200 With W200 Narrow Beam (15°) Intensity 7K mcd/250 Ft.Cd @ 15 mA |
| | | 18,37,73,74 | WF200-0AG-014V | 12/14V | 15 | 400 | |
| | | 17, 85 | WF200-0AG-024V | 24V | 15 | 400 | |
| | | 17, 85 | WF200-0AG-028V | 28V | 15 | 400 | |
| 470nm Super Blue SiC/GaN  WF200 |  | 56,79,84,86 | WF200-0PB-005V | 5V | 15 | 125 | 120° Contact Polarity V = DC only Replace WF200 With W200 Std. Beam (15°) Intensity 2K mcd/60 Ft.Cd @ 15 mA |
| | | 18,37,73,74 | WF200-0PB-014V | 12/14V | 15 | 125 | |
| | | 17, 85 | WF200-0PB-024V | 24V | 15 | 125 | |
| | | 17, 85 | WF200-0PB-028V | 28V | 15 | 125 | |

All dimensions in inches. For millimeters multiply by 25.4

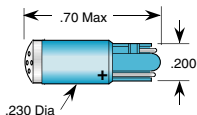
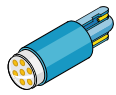
Options



Series: W200
PN Example: W200-0UO-005B



Series: W202
PN Example: W202-0UR-005B


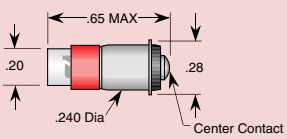

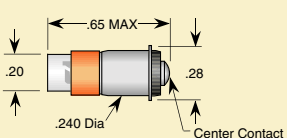

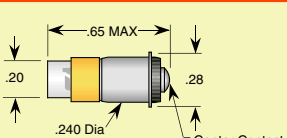

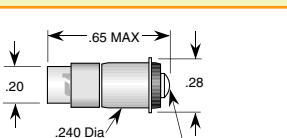

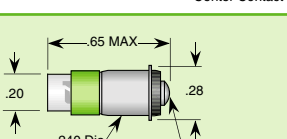

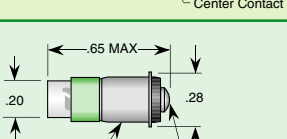

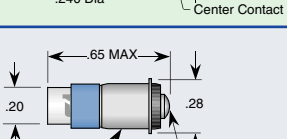


Series: W206
PN Example: W206-0PB-005B

Log # 122D Rev 08-2000

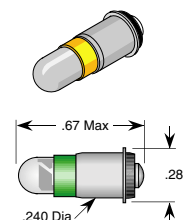


T1-3/4 (5mm) Midget Flange Based LEDs

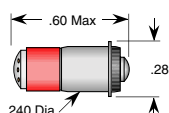
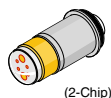
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|---|-------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  FF200 |  | 328,345,350 | FF200-0UR-006B | 5/6V | 20 | 115 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @20 mA |
| | | 330,382,394 | FF200-0UR-014B | 12/14V | 20 | 115 | |
| | | 327,376,387 | FF200-0UR-024B | 24V | 15 | 85 | |
| | | 327,376,387 | FF200-0UR-028B | 28V | 15 | 85 | |
| 612nm Super Orange InGaAlP  FF200 |  | 328,345,350 | FF200-0UO-006B | 5/6V | 20 | 130 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | | 330,382,394 | FF200-0UO-014B | 12/14V | 20 | 130 | |
| | | 327,376,387 | FF200-0UO-024B | 24V | 15 | 98 | |
| | | 327,376,387 | FF200-0UO-028B | 28V | 15 | 98 | |
| 595nm Super Yellow InGaAlP  FF200 |  | 328,345,350 | FF200-0UY-006B | 5/6V | 20 | 116 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | | 330,382,394 | FF200-0UY-014B | 12/14V | 20 | 116 | |
| | | 327,376,387 | FF200-0UY-024B | 24V | 15 | 75 | |
| | | 327,376,387 | FF200-0UY-028B | 28V | 15 | 75 | |
| 8000K Cool White SiC/GaN  FF200 |  | 328,345,350 | FF200-0CW-006B | 5V | 15 | 160 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | | 330,382,394 | FF200-0CW-014B | 12/14V | 15 | 160 | |
| | | 327,376,387 | FF200-0CW-024B | 24V | 15 | 160 | |
| | | 327,376,387 | FF200-0CW-028B | 28V | 15 | 160 | |
| 570nm Lime Green InGaAlP  FF200 |  | 328,345,350 | FF200-0UG-006B | 5/6V | 20 | 58 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| | | 330,382,394 | FF200-0UG-014B | 12/14V | 20 | 58 | |
| | | 327,376,387 | FF200-0UG-024B | 24V | 15 | 44 | |
| | | 327,376,387 | FF200-0UG-028B | 28V | 15 | 44 | |
| 525nm Aqua Green SiC/GaN  FF200 |  | 328,345,350 | FF200-0AG-006B | 5/6V | 15 | 400 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | | 330,382,394 | FF200-0AG-014B | 12/14V | 15 | 400 | |
| | | 327,376,387 | FF200-0AG-024B | 24V | 15 | 400 | |
| | | 327,376,387 | FF200-0AG-028B | 28V | 15 | 400 | |
| 470nm Super Blue SiC/GaN  FF200 |  | 328,345,350 | FF200-0PB-006B | 5/6V | 15 | 125 | 120° Center Contact Polarity B = BiPolar AC/DC Replace FF200 With F200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | | 330,382,394 | FF200-0PB-014B | 12/14V | 15 | 125 | |
| | | 327,376,387 | FF200-0PB-024B | 24V | 15 | 125 | |
| | | 327,376,387 | FF200-0PB-028B | 28V | 15 | 125 | |

All dimensions in inches. For millimeters multiply by 25.4

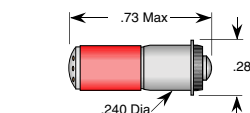
Options



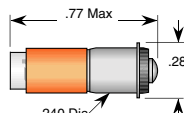
Series: F200
PN Example: F200-0AG-006B



Series: F206
PN Example: F206-0UR-006B



Series: FL206
PN Example: FL206-0UR-006B










Series: FFL200
PN Example: FFL200-0UO-006B



Log # 122Dd Rev 09-2000

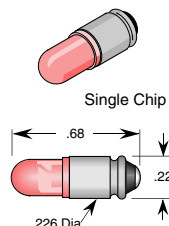


T1-3/4 (5mm) Midget Groove Based LEDs

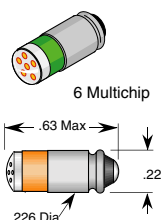
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|----------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  GF200 | 337,379,398 | GF200-0UR-006B | 5/6V | 20 | 115 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Narrow (15°) Beam Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | 386 | GF200-0UR-014B | 12/14V | 20 | 115 | | |
| | 334,388 | GF200-0UR-024B | 24V | 15 | 85 | | |
| | 334,388 | GF200-0UR-028B | 28V | 15 | 85 | | |
| 612nm Super Orange InGaAlP  GF200 | 337,379,398 | GF200-0UO-006B | 5/6V | 20 | 130 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Narrow (15°) Beam Intensity 3.5K mcd@ 20 mA |
| | 386 | GF200-0UO-014B | 12/14V | 20 | 130 | | |
| | 334,388 | GF200-0UO-024B | 24V | 15 | 98 | | |
| | 334,388 | GF200-0UO-028B | 28V | 15 | 98 | | |
| 595nm Super Yellow InGaAlP  GF200 | 337,379,398 | GF200-0UY-006B | 5/6V | 20 | 116 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Narrow (15°) Beam Intensity 3.2K mcd@ 20 mA |
| | 386 | GF200-0UY-014B | 12/14V | 20 | 116 | | |
| | 334,388 | GF200-0UY-024B | 24V | 15 | 75 | | |
| | 334,388 | GF200-0UY-028B | 28V | 15 | 75 | | |
| 8000K Cool White SiC/GaN  GF200 | 337,379,398 | GF200-0CW-006B | 5/6V | 15 | 160 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | 386 | GF200-0CW-014B | 12/14V | 15 | 160 | | |
| | 334,388 | GF200-0CW-024B | 24V | 15 | 160 | | |
| | 334,388 | GF200-0CW-028B | 28V | 15 | 160 | | |
| 570nm Lime Green InGaAlP  GF200 | 337,379,398 | GF200-0UG-006B | 5/6V | 20 | 58 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| | 386 | GF200-0UG-014B | 12/14V | 20 | 58 | | |
| | 334,388 | GF200-0UG-024B | 24V | 15 | 44 | | |
| | 334,388 | GF200-0UG-028B | 28V | 15 | 44 | | |
| 525nm Aqua Green SiC/GaN  GF200 | 337,379,398 | GF200-0AG-006B | 5/6V | 15 | 400 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | 386 | GF200-0AG-014B | 12/14V | 15 | 400 | | |
| | 334,388 | GF200-0AG-024B | 24V | 15 | 400 | | |
| | 334,388 | GF200-0AG-028B | 28V | 15 | 400 | | |
| 470nm Super Blue SiC/GaN  GF200 | 337,379,398 | GF200-0PB-006B | 5/6V | 15 | 125 | 120° | Center Contact Polarity B = BiPolar AC/DC Replace GF200 With G200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | 386 | GF200-0PB-014B | 12/14V | 15 | 125 | | |
| | 334,388 | GF200-0PB-024B | 24V | 15 | 125 | | |
| | 334,388 | GF200-0PB-028B | 28V | 15 | 125 | | |

All dimensions in inches. For millimeters multiply by 25.4

Options




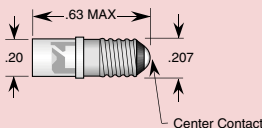

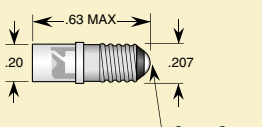

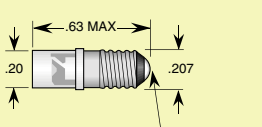

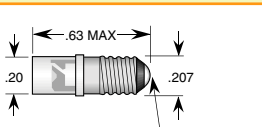

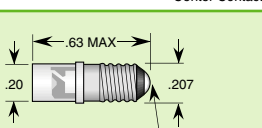

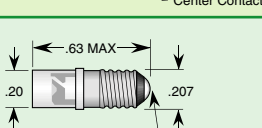

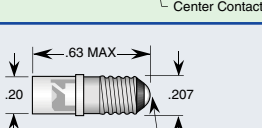
Series: G200
PN Example: G200-0UR-028B



Series: G206
PN Example: G206-0UO-028B

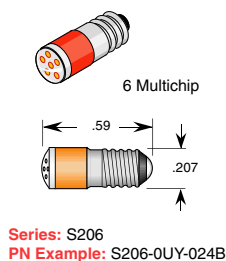
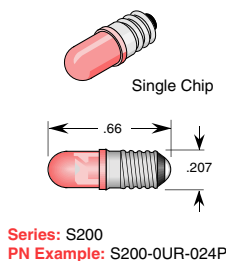


T1-3/4 (5mm) Midget Screw Based LEDs

| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  SF200  | 378,1768,1775 | SF200-0UR-005P | 5V | 20 | 115 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Narrow (15°) Beam Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | 336,383 | SF200-0UR-014P | 12/14V | 20 | 115 | | |
| | 342 | SF200-0UR-024P | 24V | 15 | 85 | | |
| | 335,342,369,399 | SF200-0UR-028P | 28V | 15 | 85 | | |
| 612nm Super Orange InGaIP  SF200  | 378,1768,1775 | SF200-0UO-005P | 5V | 20 | 130 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | 336,383 | SF200-0UO-014P | 12/14V | 20 | 130 | | |
| | 342 | SF200-0UO-024P | 24V | 15 | 98 | | |
| | 335,342,369,399 | SF200-0UO-028P | 28V | 15 | 98 | | |
| 595nm Super Yellow InGaIP  SF200  | 378,1768,1775 | SF200-0UY-005P | 5V | 20 | 116 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | 336,383 | SF200-0UY-014P | 12/14V | 20 | 116 | | |
| | 342 | SF200-0UY-024P | 24V | 15 | 75 | | |
| | 335,342,369,399 | SF200-0UY-028P | 28V | 15 | 75 | | |
| 8000K Cool White SiC/GaN  SF200  | 378,1768,1775 | SF200-0CW-005P | 5/6V | 15 | 160 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | 336,383 | SF200-0CW-014P | 12/14V | 15 | 160 | | |
| | 342 | SF200-0CW-024P | 24V | 15 | 160 | | |
| | 335,342,369,399 | SF200-0CW-028P | 28V | 15 | 160 | | |
| 570nm Lime Green InGaIP  SF200  | 378,1768,1775 | SF200-0UG-005P | 5V | 20 | 58 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| | 336,383 | SF200-0UG-014P | 12/14V | 20 | 58 | | |
| | 342 | SF200-0UG-024P | 24V | 15 | 44 | | |
| | 335,342,369,399 | SF200-0UG-028P | 28V | 15 | 44 | | |
| 525nm Aqua Green SiC/GaN  SF200  | 378,1768,1775 | SF200-0AG-005P | 5V | 15 | 400 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | 336,383 | SF200-0AG-014P | 12/14V | 15 | 400 | | |
| | 342 | SF200-0AG-024P | 24V | 15 | 400 | | |
| | 335,342,369,399 | SF200-0AG-028P | 28V | 15 | 400 | | |
| 470nm Super Blue SiC/GaN  SF200  | 378,1768,1775 | SF200-0PB-005P | 5V | 15 | 125 | 120° | Center Contact Polarity P = Positive N = Negative Replace SF200 With S200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | 336,383 | SF200-0PB-014P | 12/14V | 15 | 125 | | |
| | 342 | SF200-0PB-024P | 24V | 15 | 125 | | |
| | 335,342,369,399 | SF200-0PB-028P | 28V | 15 | 125 | | |

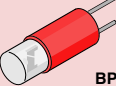
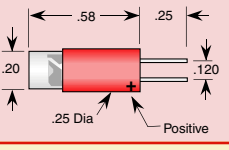

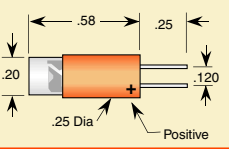

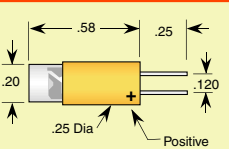

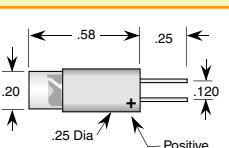

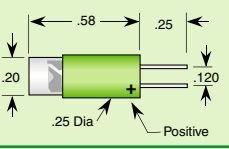

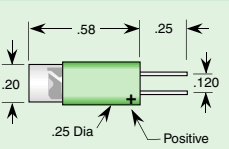

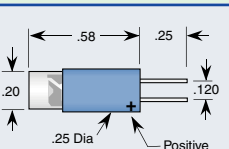
All dimensions in inches. For millimeters multiply by 25.4

Options

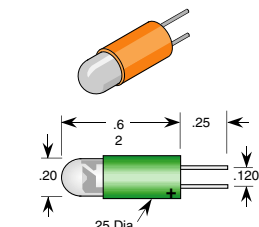




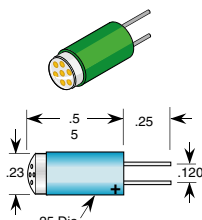
T1-3/4 (5mm) Midget Bi-Pin Based LEDs

| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|---|-------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  BPF200 |  | 7328 | BPF200-0UR-005V | 5V | 20 | 115 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Narrow (15°) Beam Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | | 7371 | BPF200-0UR-012V | 12V | 20 | 115 | |
| | | 7330,7382 | BPF200-0UR-014V | 12/14V | 20 | 115 | |
| | | 7327,7387 | BPF200-0UR-024V | 24V | 15 | 85 | |
| | | 7327,7387 | BPF200-0UR-028V | 28V | 15 | 85 | |
| 612nm Super Orange InGaAlP  BPF200 |  | 7328 | BPF200-0UO-005V | 5V | 20 | 130 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Narrow (15°) Beam Intensity 3.5K mcd @ 20 mA |
| | | 7371 | BPF200-0UO-012V | 12V | 20 | 130 | |
| | | 7330,7382 | BPF200-0UO-014V | 12/14V | 20 | 130 | |
| | | 7327,7387 | BPF200-0UO-024V | 24V | 15 | 98 | |
| | | 7327,7387 | BPF200-0UO-028V | 28V | 15 | 98 | |
| 595nm Super Yellow InGaAlP  BPF200 |  | 7328 | BPF200-0UY-005V | 5V | 20 | 116 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Narrow (15°) Beam Intensity 3.2K mcd @ 20 mA |
| | | 7371 | BPF200-0UY-012V | 12V | 20 | 116 | |
| | | 7330,7382 | BPF200-0UY-014V | 12/14V | 20 | 116 | |
| | | 7327,7387 | BPF200-0UY-024V | 24V | 15 | 75 | |
| | | 7327,7387 | BPF200-0UY-028V | 28V | 15 | 75 | |
| 8000K Cool White SiC/GaN  BPF200 |  | 7328 | BPF200-0CW-005V | 5V | 15 | 160 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | | 7371 | BPF200-0CW-012V | 12V | 15 | 160 | |
| | | 7330,7382 | BPF200-0CW-014V | 12/14V | 15 | 160 | |
| | | 7327,7387 | BPF200-0CW-024V | 24V | 15 | 160 | |
| | | 7327,7387 | BPF200-0CW-028V | 28V | 15 | 160 | |
| 570nm Lime Green InGaAlP  BPF200 |  | 7328 | BPF200-0UG-005V | 5V | 20 | 58 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Narrow (12-15°) Beam Intensity 1K mcd @ 20 mA |
| | | 7371 | BPF200-0UG-012V | 12V | 20 | 58 | |
| | | 7330,7382 | BPF200-0UG-014V | 12/14V | 20 | 58 | |
| | | 7327,7387 | BPF200-0UG-024V | 24V | 15 | 44 | |
| | | 7327,7387 | BPF200-0UG-028V | 28V | 15 | 44 | |
| 525nm Aqua Green SiC/GaN  BPF200 |  | 7328 | BPF200-0AG-005V | 5V | 15 | 400 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | | 7371 | BPF200-0AG-012V | 12V | 15 | 400 | |
| | | 7330,7382 | BPF200-0AG-014V | 12/14V | 15 | 400 | |
| | | 7327,7387 | BPF200-0AG-024V | 24V | 15 | 400 | |
| | | 7327,7387 | BPF200-0AG-028V | 28V | 15 | 400 | |
| 470nm Super Blue SiC/GaN  BPF200 |  | 7328 | BPF200-0PB-005V | 5V | 15 | 125 | 120° Contact Polarity V = DC only Replace BPF200 With BP200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | | 7371 | BPF200-0PB-012V | 12V | 15 | 125 | |
| | | 7330,7382 | BPF200-0PB-014V | 12/14V | 15 | 125 | |
| | | 7327,7387 | BPF200-0PB-024V | 24V | 15 | 125 | |
| | | 7327,7387 | BPF200-0PB-028V | 28V | 15 | 125 | |

All dimensions in inches. For millimeters multiply by 25.4



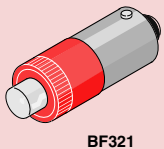
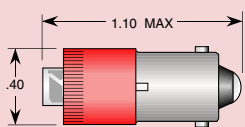
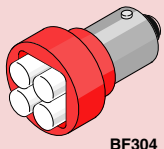
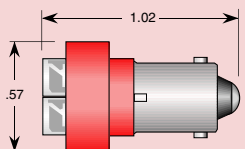
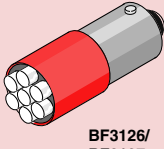
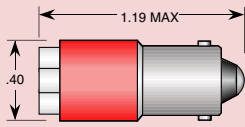
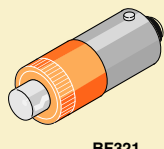
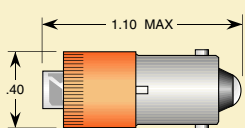
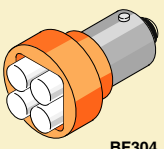
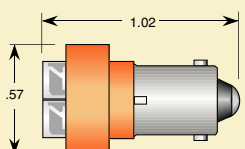
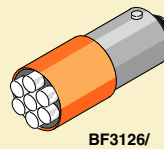
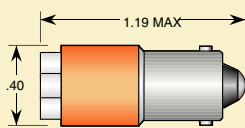
Series: BP200
PN Example: BP200-0AG-014V



Series: BP203
PN Example: BP203-1UB-014V



T3-1/4 (9mm) Miniature Based LED Lamps

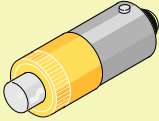
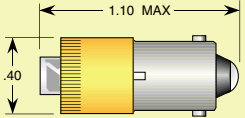
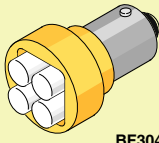
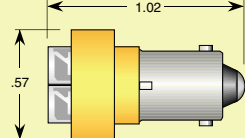
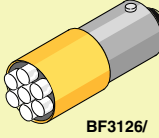
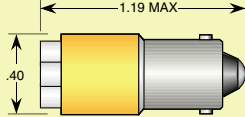
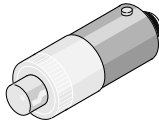
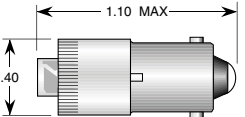
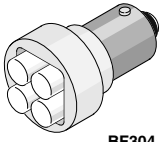
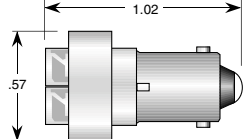
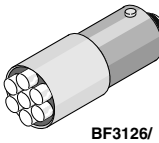
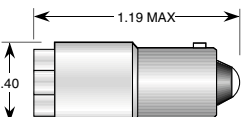
| Miniature Packages | | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|---|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAs  BF321  | T3-1/4 (9mm) Miniature Bayonet | 6MB, 44, 47, 755 | BF321-0UR-006B | 5/6V | 20 | 115 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Narrow Beam (15°) 1.6K mcd/52 Ft.Cd @ 20mA |
| | | 12MB, 756 | BF321-0UR-014B | 12/14V | 20 | 115 | | |
| | | 24MB, | BF321-0UR-024B | 24V | 20 | 115 | | |
| | | 313,757,1819,1829 | BF321-0UR-028B | 28V | 20 | 115 | | |
| | | 48MB | BF321-0UR-048B | 48V | 12 | 65 | | |
| | | 60MB,1835 | BF321-0UR-060B | 60V | 12 | 65 | | |
| | | 120MB, NE51H | BF321-0UR-120A | 120VAC | 10 | 50 | | |
| 660nm Ultra Red GaAlAs/GaAs  BF304  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF304-0UR-006B | 5/6V | 80 | 460 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Narrow Beam (15°) 6.4K mcd/208 Ft.Cd @ 20mA |
| | | 12MB, 756 | BF304-0UR-014B | 12/14V | 40 | 460 | | |
| | | 24MB, | BF304-0UR-024B | 24V | 20 | 460 | | |
| | | 313,757,1819,1829 | BF304-0UR-028B | 28V | 20 | 460 | | |
| | | 48MB | BF304-0UR-048B | 48V | 12 | 260 | | |
| | | 60MB,1835 | BF304-0UR-060B | 60V | 12 | 260 | | |
| | | 120MB, NE51H | BF304-0UR-120A | 120VAC | 10 | 200 | | |
| 660nm Ultra Red GaAlAs/GaAs  BF3126/ BF3127  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF3126-0UR-006B | 5/6V | 120 | 600 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Narrow Beam (65°) 1.3K mcd/210 Ft.Cd @ 20mA |
| | | 12MB, 756 | BF3126-0UR-014B | 12/14V | 40 | 600 | | |
| | | 24MB, | BF3127-0UR-024B | 24V | 20 | 700 | | |
| | | 313,757,1819,1829 | BF3127-0UR-028B | 28V | 20 | 700 | | |
| | | 48MB | BF3127-0UR-048B | 48V | 12 | 230 | | |
| | | 60MB,1835 | BF3127-0UR-060B | 60V | 12 | 230 | | |
| | | 120MB, NE51H | BF3127-0UR-120A | 120VAC | 10 | 160 | | |
| 612nm Super Orange InGaAlP  BF321  | T3-1/4 (9mm) Miniature Bayonet | 6MB, 44, 47, 755 | BF321-0UO-006B | 5/6V | 20 | 130 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Narrow Beam (15°) 3.5 K mcd @ 20mA |
| | | 12MB, 756 | BF321-0UO-014B | 12/14V | 20 | 130 | | |
| | | 24MB, | BF321-0UO-024B | 24V | 20 | 130 | | |
| | | 313,757,1819,1829 | BF321-0UO-028B | 28V | 20 | 130 | | |
| | | 48MB | BF321-0UO-048B | 48V | 12 | 78 | | |
| | | 60MB,1835 | BF321-0UO-060B | 60V | 12 | 78 | | |
| | | 120MB, NE51H | BF321-0UO-120A | 120VAC | 10 | 65 | | |
| 612nm Super Orange InGaAlP  BF304  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF304-0UO-006B | 5/6V | 80 | 520 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Narrow Beam (15°) 14 K mcd @ 20mA |
| | | 12MB, 756 | BF304-0UO-014B | 12/14V | 40 | 520 | | |
| | | 24MB, | BF304-0UO-024B | 24V | 20 | 520 | | |
| | | 313,757,1819,1829 | BF304-0UO-028B | 28V | 20 | 520 | | |
| | | 48MB | BF304-0UO-048B | 48V | 12 | 312 | | |
| | | 60MB,1835 | BF304-0UO-060B | 60V | 12 | 312 | | |
| | | 120MB, NE51H | BF304-0UO-120A | 120VAC | 10 | 260 | | |
| 612nm Super Orange InGaAlP  BF3126/ BF3127  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF3126-0UO-006B | 5/6V | 120 | 510 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Medium Beam (50°) 2.45 K mcd @ 20mA |
| | | 12MB, 756 | BF3126-0UO-014B | 12/14V | 40 | 510 | | |
| | | 24MB, | BF3127-0UO-024B | 24V | 20 | 595 | | |
| | | 313,757,1819,1829 | BF3127-0UO-028B | 28V | 20 | 595 | | |
| | | 48MB | BF3127-0UO-048B | 48V | 12 | 357 | | |
| | | 60MB,1835 | BF3127-0UO-060B | 60V | 12 | 357 | | |
| | | 120MB, NE51H | BF3127-0UO-120A | 120VAC | 10 | 298 | | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122H Rev 10-2000



T3-1/4 (9mm) Miniature Based LED Lamps

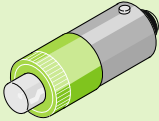
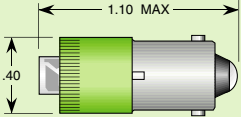
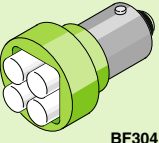
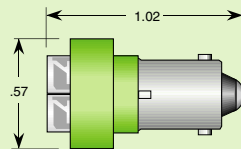
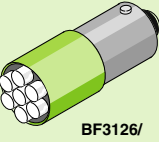
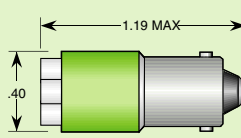
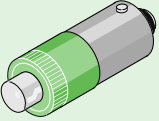
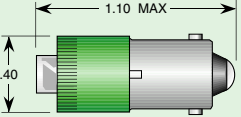
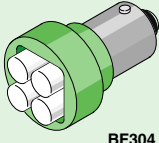
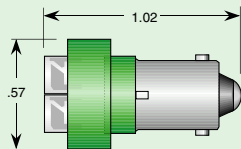
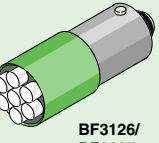
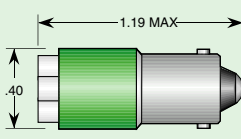
| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 595nm Super Yellow InGaAlP  BF321  | 6MB, 44, 47, 755 | BF321-0UY-006B | 5/6V | 20 | 116 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Narrow Beam (15°) 3.2K mcd @ 20mA |
| | 12MB, 756 | BF321-0UY-014B | 12/14V | 20 | 116 | | |
| | 24MB, | BF321-0UY-024B | 24V | 20 | 116 | | |
| | 313,757,1819,1829 | BF321-0UY-028B | 28V | 20 | 116 | | |
| | 48MB | BF321-0UY-048B | 48V | 12 | 54 | | |
| | 60MB,1835 | BF321-0UY-060B | 60V | 12 | 54 | | |
| | 120MB, NE51H | BF321-0UY-120A | 120VAC | 10 | 39 | | |
| 595nm Super Yellow InGaAlP  BF304  | 6MB, 44, 47, 755 | BF304-0UY-006B | 5/6V | 80 | 464 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Narrow Beam (15°) 12.8K mcd @ 20mA |
| | 12MB, 756 | BF304-0UY-014B | 12/14V | 40 | 464 | | |
| | 24MB, | BF304-0UY-024B | 24V | 20 | 464 | | |
| | 313,757,1819,1829 | BF304-0UY-028B | 28V | 20 | 464 | | |
| | 48MB | BF304-0UY-048B | 48V | 12 | 216 | | |
| | 60MB,1835 | BF304-0UY-060B | 60V | 12 | 216 | | |
| | 120MB, NE51H | BF304-0UY-120A | 120VAC | 10 | 156 | | |
| 595nm Super Yellow InGaAlP  BF3126/ BF3127  | 6MB, 44, 47, 755 | BF3126-0UY-006B | 5/6V | 120 | 192 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Medium Beam (50°) 7K mcd @ 20mA |
| | 12MB, 756 | BF3126-0UY-014B | 12/14V | 40 | 192 | | |
| | 24MB, | BF3127-0UY-024B | 24V | 20 | 224 | | |
| | 313,757,1819,1829 | BF3127-0UY-028B | 28V | 20 | 224 | | |
| | 48MB | BF3127-0UY-048B | 48V | 12 | 105 | | |
| | 60MB,1835 | BF3127-0UY-060B | 60V | 12 | 105 | | |
| | 120MB, NE51H | BF3127-0UY-120A | 120VAC | 10 | 87 | | |
| 8000K Cool White SiC/GaN  BF321  | 6MB, 44, 47, 755 | BF321-0CW-006B | 5/6V | 15 | 160 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Std. Beam (50°) |
| | 12MB, 756 | BF321-0CW-014B | 12/14V | 15 | 160 | | |
| | 24MB, | BF321-0CW-024B | 24V | 15 | 160 | | |
| | 313,757,1819,1829 | BF321-0CW-028B | 28V | 15 | 160 | | |
| | 48MB | BF321-0CW-048B | 48V | 12 | 128 | | |
| | 60MB,1835 | BF321-0CW-060B | 60V | 12 | 128 | | |
| | 120MB, NE51H | BF321-0CW-120A | 120VAC | 10 | 106 | | |
| 8000K Cool White SiC/GaN  BF304  | 6MB, 44, 47, 755 | BF304-0CW-006B | 5/6V | 60 | 640 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Std. Beam (50°) |
| | 12MB, 756 | BF304-0CW-014B | 12/14V | 30 | 640 | | |
| | 24MB, | BF304-0CW-024B | 24V | 15 | 640 | | |
| | 313,757,1819,1829 | BF304-0CW-028B | 28V | 15 | 640 | | |
| | 48MB | BF304-0CW-48B | 48V | 12 | 512 | | |
| | 60MB,1835 | BF304-0CW-60B | 60V | 12 | 512 | | |
| | 120MB, NE51H | BF304-0CW-120A | 120VAC | 10 | 424 | | |
| 8000K Cool White SiC/GaN  BF3126/ BF3127  | 6MB, 44, 47, 755 | BF3126-0CW-006B | 5/6V | 90 | 900 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Std. Beam (50°) |
| | 12MB, 756 | BF3126-0CW-014B | 12/14V | 30 | 900 | | |
| | 24MB, | BF3126-0CW-024B | 24V | 15 | 900 | | |
| | 313,757,1819,1829 | BF3127-0CW-028B | 28V | 15 | 1050 | | |
| | 48MB | BF3127-0CW-048B | 48V | 12 | 840 | | |
| | 60MB,1835 | BF3127-0CW-060B | 60V | 12 | 840 | | |
| | 120MB, NE51H | BF3127-0CW-120A | 120VAC | 10 | 700 | | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122J Rev 10-2000



T3-1/4 (9mm) Miniature Based LED Lamps

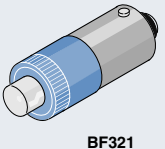
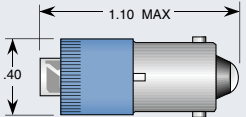
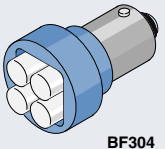
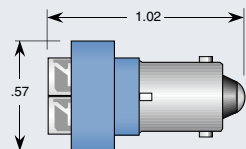
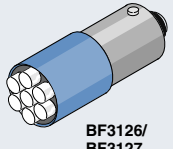
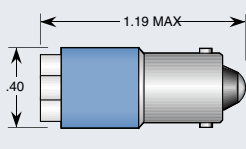
| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|---|-------------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 570nm Lime Green InGaAlP  BF321  | T3-1/4 (9mm) Miniature Bayonet | 6MB, 44, 47, 755 | BF321-0UG-006B | 5/6V | 20 | 58 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Narrow Beam (12-15°) 1K mcd @ 20mA |
| | | 12MB, 756 | BF321-0UG-014B | 12/14V | 20 | 58 | |
| | | 24MB, | BF321-0UG-024B | 24V | 20 | 58 | |
| | | 313,757,1819,1829 | BF321-0UG-028B | 28V | 20 | 58 | |
| | | 48MB | BF321-0UG-048B | 48V | 12 | 35 | |
| | | 60MB,1835 | BF321-0UG-060B | 60V | 12 | 35 | |
| | | 120MB, NE51H | BF321-0UG-120A | 120VAC | 10 | 29 | |
| 570nm Lime Green InGaAlP  BF304  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF304-0UG-006B | 5/6V | 80 | 232 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Narrow Beam (12-15°) 4K mcd @ 20mA |
| | | 12MB, 756 | BF304-0UG-014B | 12/14V | 40 | 232 | |
| | | 24MB, | BF304-0UG-024B | 24V | 20 | 232 | |
| | | 313,757,1819,1829 | BF304-0UG-028B | 28V | 20 | 232 | |
| | | 48MB | BF304-0UG-048B | 48V | 12 | 140 | |
| | | 60MB,1835 | BF304-0UG-060B | 60V | 12 | 140 | |
| | | 120MB, NE51H | BF304-0UG-120A | 120VAC | 10 | 116 | |
| 570nm Lime Green InGaAlP  BF3126/ BF3127  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF3126-0UG-006B | 5/6V | 120 | 216 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Medium Beam (50°) 1.2K mcd @ 20mA |
| | | 12MB, 756 | BF3126-0UG-014B | 12/14V | 40 | 216 | |
| | | 24MB, | BF3127-0UG-024B | 24V | 20 | 252 | |
| | | 313,757,1819,1829 | BF3127-0UG-028B | 28V | 20 | 252 | |
| | | 48MB | BF3127-0UG-048B | 48V | 12 | 154 | |
| | | 60MB,1835 | BF3127-0UG-060B | 60V | 12 | 154 | |
| | | 120MB, NE51H | BF3127-0UG-120A | 120VAC | 10 | 126 | |
| 525nm Aqua Green SiC/GaN  BF321  | T3-1/4 (9mm) Miniature Bayonet | 6MB, 44, 47, 755 | BF321-0AG-006B | 5/6V | 15 | 400 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Narrow Beam (15°) 7K mcd/250 Ft.Cd @ 15mA |
| | | 12MB, 756 | BF321-0AG-014B | 12/14V | 15 | 400 | |
| | | 24MB, | BF321-0AG-024B | 24V | 15 | 400 | |
| | | 313,757,1819,1829 | BF321-0AG-028B | 28V | 15 | 400 | |
| | | 48MB | BF321-0AG-048B | 48V | 12 | 320 | |
| | | 60MB,1835 | BF321-0AG-060B | 60V | 12 | 320 | |
| | | 120MB, NE51H | BF321-0AG-120A | 120VAC | 10 | 275 | |
| 525nm Aqua Green SiC/GaN  BF304  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF304-0AG-006B | 5/6V | 60 | 1600 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Narrow Beam (15°) 28K mcd/1000 Ft.Cd @ 15mA |
| | | 12MB, 756 | BF304-0AG-014B | 12/14V | 30 | 1600 | |
| | | 24MB, | BF304-0AG-024B | 24V | 15 | 1600 | |
| | | 313,757,1819,1829 | BF304-0AG-028B | 28V | 15 | 1600 | |
| | | 48MB | BF304-0AG-048B | 48V | 12 | 1280 | |
| | | 60MB,1835 | BF304-0AG-060B | 60V | 12 | 1280 | |
| | | 120MB, NE51H | BF304-0AG-120A | 120VAC | 10 | 1100 | |
| 525nm Aqua Green SiC/GaN  BF3126/ BF3127  | T3-1/4 (9mm) Miniature Bayonet LED Cluster | 6MB, 44, 47, 755 | BF3126-0AG-006B | 5/6V | 90 | 1200 | 120° Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Narrow Beam (15°) 30K mcd/800 Ft.Cd @ 15mA |
| | | 12MB, 756 | BF3126-0AG-014B | 12/14V | 30 | 1200 | |
| | | 24MB, | BF3126-0AG-024B | 24V | 15 | 1200 | |
| | | 313,757,1819,1829 | BF3127-0AG-028B | 28V | 15 | 1400 | |
| | | 48MB | BF3127-0AG-048B | 48V | 12 | 1190 | |
| | | 60MB,1835 | BF3127-0AG-060B | 60V | 12 | 1190 | |
| | | 120MB, NE51H | BF3127-0AG-120A | 120VAC | 10 | 1050 | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122K Rev 10-2000

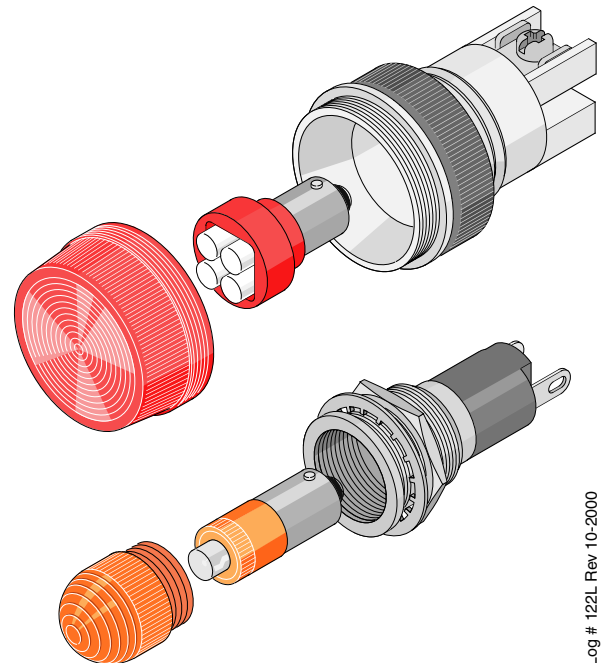
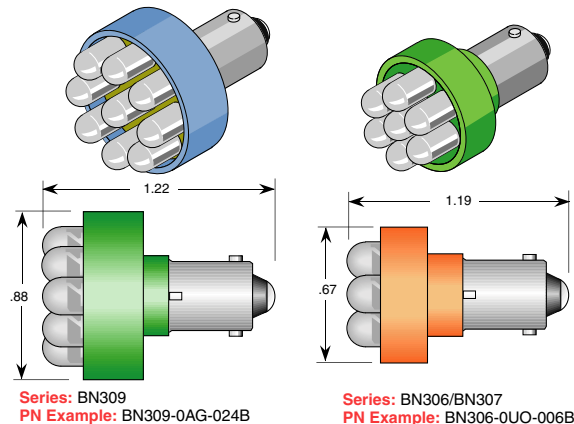
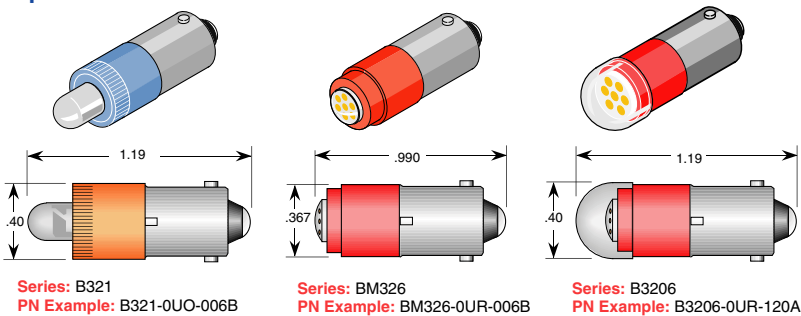


T3-1/4 (9mm) Miniature Based LED Lamps

| Miniature Packages | | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|---|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 470nm Super Blue SiC/GaN  BF321 | T3-1/4 (9mm) Miniature Bayonet  | 6MB, 44, 47, 755 | BF321-0PB-006B | 5/6V | 15 | 116 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Std. Beam (15°) |
| | | 12MB, 756 | BF321-0PB-014B | 12/14V | 15 | 116 | | |
| | | 24MB, | BF321-0PB-024B | 24V | 15 | 116 | | |
| | | 313,757,1819,1829 | BF321-0PB-028B | 28V | 15 | 116 | | |
| | | 48MB | BF321-0PB-048B | 48V | 12 | 84 | | |
| | | 60MB,1835 | BF321-0PB-060B | 60V | 12 | 84 | | |
| | | 120MB, NE51H | BF321-0PB-120A | 120VAC | 10 | 74 | | |
| 470nm Super Blue SiC/GaN  BF304 | T3-1/4 (9mm) Miniature Bayonet LED Cluster  | 6MB, 44, 47, 755 | BF304-0PB-006B | 5/6V | 60 | 464 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF304 With B304 for Std. Beam (15°) |
| | | 12MB, 756 | BF304-0PB-014B | 12/14V | 30 | 464 | | |
| | | 24MB, | BF304-0PB-024B | 24V | 15 | 464 | | |
| | | 313,757,1819,1829 | BF304-0PB-028B | 28V | 15 | 464 | | |
| | | 48MB | BF304-0PB-048B | 48V | 12 | 336 | | |
| | | 60MB,1835 | BF304-0PB-060B | 60V | 12 | 336 | | |
| | | 120MB, NE51H | BF304-0PB-120A | 120VAC | 10 | 296 | | |
| 470nm Super Blue SiC/GaN  BF3126/ BF3127 | T3-1/4 (9mm) Miniature Bayonet LED Cluster  | 6MB, 44, 47, 755 | BF3126-0PB-006B | 5/6V | 90 | 360 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF3126/3127 With B3126/3127 for Std. Beam (15°) |
| | | 12MB, 756 | BF3126-0PB-014B | 12/14V | 30 | 360 | | |
| | | 24MB, | BF3127-0PB-024B | 24V | 15 | 420 | | |
| | | 313,757,1819,1829 | BF3127-0PB-028B | 28V | 15 | 420 | | |
| | | 48MB | BF3127-0PB-048B | 48V | 12 | 336 | | |
| | | 60MB,1835 | BF3127-0PB-060B | 60V | 12 | 336 | | |
| | | 120MB, NE51H | BF3127-0PB-120A | 120VAC | 10 | 315 | | |
| | | | BF3127-0PB-130B | 130V | 8 | 252 | | |

Options

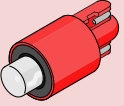
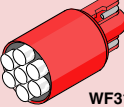
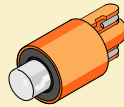
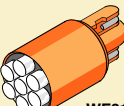
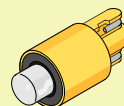
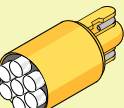
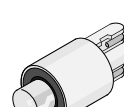
All dimensions in inches. For millimeters multiply by 25.4



Log # 122L Rev 10-2000



T3-1/4 (9mm) Miniature Wedge Based LEDs

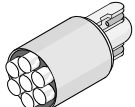
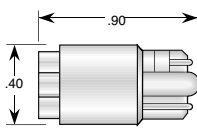
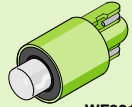
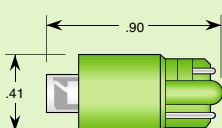
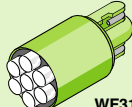
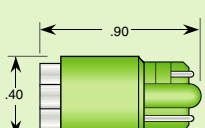
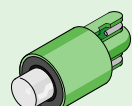
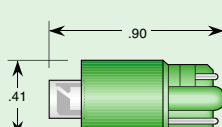
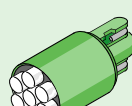
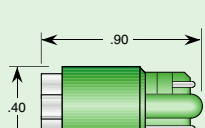
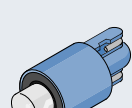
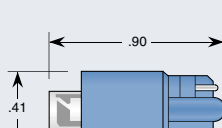

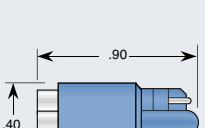
| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAs  WF321 | 159,259,555,1995-7 | WF321-0UR-006B | 5/6V | 20 | 115 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Narrow Beam (15°) 1.6K mcd/52Ft.Cd @ 20mA |
| | 124,658,2080,936 | WF321-0UR-014B | 12/14V | 20 | 115 | | |
| | 656,657,400,464,655 | WF321-0UR-024B | 24V | 20 | 115 | | |
| | 656,657,400,464,655 | WF321-0UR-028B | 28V | 20 | 115 | | |
| | | WF321-0UR-048B | 48V | 12 | 65 | | |
| | | WF321-0UR-120A | 120VAC | 10 | 50 | | |
| | | WF321-0UR-130V | 130V | 8 | 40 | | |
| 660nm Ultra Red GaAlAs/GaAs  WF3126/ WF3127 | 159,259,555,1995-7 | WF3126-0UR-006B | 5/6V | 120 | 600 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0UR-014B | 12/14V | 40 | 600 | | |
| | 656,657,400,464,655 | WF3127-0UR-024B | 24V | 20 | 700 | | |
| | 656,657,400,464,655 | WF3127-0UR-028B | 28V | 20 | 700 | | |
| | | WF3127-0UR-048B | 48V | 12 | 230 | | |
| | | WF3127-0UR-120A | 120VAC | 10 | 160 | | |
| | | WF3127-0UR-130V | 130V | 8 | 140 | | |
| 612nm Orange InGaAlP  WF321 | 159,259,555,1995-7 | WF321-0UO-006B | 5/6V | 20 | 130 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Narrow Beam (15°) 3.5 K mcd@ 20mA |
| | 124,658,2080,936 | WF321-0UO-014B | 12/14V | 20 | 130 | | |
| | 656,657,400,464,655 | WF321-0UO-024B | 24V | 20 | 130 | | |
| | 656,657,400,464,655 | WF321-0UO-028B | 28V | 20 | 130 | | |
| | | WF321-0UO-048B | 48V | 12 | 78 | | |
| | | WF321-0UO-120A | 120VAC | 10 | 65 | | |
| | | WF321-0UO-130V | 130V | 8 | 52 | | |
| 612nm Orange InGaAlP  WF3126/ WF3127 | 159,259,555,1995-7 | WF3126-0UO-006B | 5/6V | 120 | 510 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0UO-014B | 12/14V | 40 | 510 | | |
| | 656,657,400,464,655 | WF3127-0UO-024B | 24V | 20 | 595 | | |
| | 656,657,400,464,655 | WF3127-0UO-028B | 28V | 20 | 595 | | |
| | | WF3127-0UO-048B | 48V | 12 | 357 | | |
| | | WF3127-0UO-120A | 120VAC | 10 | 298 | | |
| | | WF3127-0UO-130V | 130V | 8 | 238 | | |
| 595nm Yellow InGaN  WF321 | 159,259,555,1995-7 | WF321-0UY-006B | 5/6V | 20 | 116 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Narrow Beam (15°) 3.2K mcd @ 20mA |
| | 124,658,2080,936 | WF321-0UY-014B | 12/14V | 20 | 116 | | |
| | 656,657,400,464,655 | WF321-0UY-024B | 24V | 20 | 116 | | |
| | 656,657,400,464,655 | WF321-0UY-028B | 28V | 20 | 116 | | |
| | | WF321-0UY-048B | 48V | 12 | 54 | | |
| | | WF321-0UY-120A | 120VAC | 10 | 39 | | |
| | | WF321-0UY-130V | 130V | 8 | 24 | | |
| 595nm Yellow InGaN  WF3126/ WF3127 | 159,259,555,1995-7 | WF3126-0UY-006B | 5/6V | 120 | 192 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0UY-014B | 12/14V | 40 | 192 | | |
| | 656,657,400,464,655 | WF3127-0UY-024B | 24V | 20 | 224 | | |
| | 656,657,400,464,655 | WF3127-0UY-028B | 28V | 20 | 224 | | |
| | | WF3127-0UY-048B | 48V | 12 | 105 | | |
| | | WF3127-0UY-120A | 120VAC | 10 | 87 | | |
| | | WF3127-0UY-130V | 130V | 8 | 70 | | |
| 8000K Cool White InGaN  WF321 | 159,259,555,1995-7 | WF321-0CW-006B | 5/6V | 15 | 160 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Std. Beam (50°) |
| | 124,658,2080,936 | WF321-0CW-014B | 12/14V | 15 | 160 | | |
| | 656,657,400,464,655 | WF321-0CW-024B | 24V | 15 | 160 | | |
| | 656,657,400,464,655 | WF321-0CW-028B | 28V | 15 | 160 | | |
| | | WF321-0CW-048B | 48V | 12 | 128 | | |
| | | WF321-0CW-120A | 120VAC | 10 | 106 | | |
| | | WF321-0CW-130V | 130V | 8 | 85 | | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122LL Rev 10-2000



T3-1/4 (9mm) Miniature Wedge Based LEDs

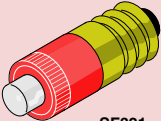
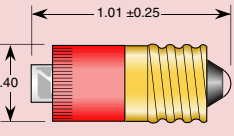
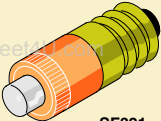
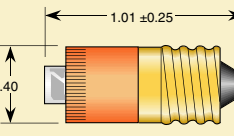
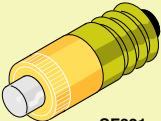
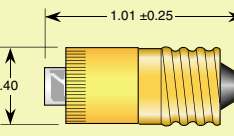
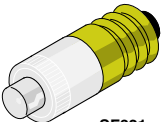
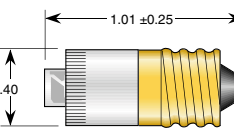
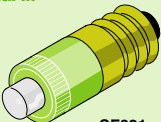
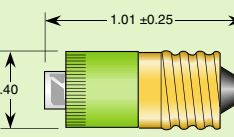
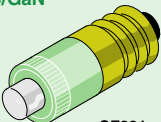
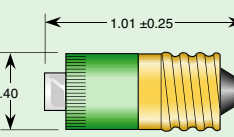
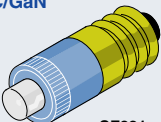
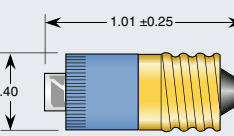
| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|-----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 8000K Cool White InGaN  WF3126/ WF3127  | 159,259,555,1995-7 | WF3126-0CW-006B | 5/6V | 90 | 900 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0CW-014B | 12/14V | 30 | 900 | | |
| | 656,657,400,464,655 | WF3126-0CW-024B | 24V | 15 | 900 | | |
| | 656,657,400,464,655 | WF3127-0CW-028B | 28V | 15 | 1050 | | |
| | | WF3127-0CW-048B | 48V | 12 | 840 | | |
| | | WF3127-0CW-120A | 120VAC | 10 | 700 | | |
| 570nm Lime Green InGaAlP  WF321  | 159,259,555,1995-7 | WF321-0UG-006B | 5/6V | 20 | 58 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Narrow Beam (12-15°) 1K mcd@ 20mA |
| | 124,658,2080,936 | WF321-0UG-014B | 12/14V | 20 | 58 | | |
| | 656,657,400,464,655 | WF321-0UG-024B | 24V | 20 | 58 | | |
| | 656,657,400,464,655 | WF321-0UG-028B | 28V | 20 | 58 | | |
| | | WF321-0UG-048B | 48V | 12 | 35 | | |
| | | WF321-0UG-120A | 120VAC | 10 | 29 | | |
| 570nm Lime Green InGaAlP  WF3126/ WF3127  | 159,259,555,1995-7 | WF3126-0UG-006B | 5/6V | 120 | 216 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0UG-104B | 12/14V | 40 | 216 | | |
| | 656,657,400,464,655 | WF3127-0UG-024B | 24V | 20 | 252 | | |
| | 656,657,400,464,655 | WF3127-0UG-28B | 28V | 20 | 252 | | |
| | | WF3127-0UG-48B | 48V | 12 | 154 | | |
| | | WF3127-0UG-120A | 120VAC | 10 | 126 | | |
| 525nm Super Green InGaN  WF321  | 159,259,555,1995-7 | WF321-0AG-006B | 5/6V | 15 | 400 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Narrow Beam (15°) 7K mcd/250 Ft.Cd @ 15mA |
| | 124,658,2080,936 | WF321-0AG-014B | 12/14V | 15 | 400 | | |
| | 656,657,400,464,655 | WF321-0AG-024B | 24V | 15 | 400 | | |
| | 656,657,400,464,655 | WF321-0AG-028B | 28V | 15 | 400 | | |
| | | WF321-0AG-048B | 48V | 12 | 320 | | |
| | | WF321-0AG-120A | 120VAC | 10 | 275 | | |
| 525nm Super Green InGaN  WF3126/ WF3127  | 159,259,555,1995-7 | WF3126-0AG-006B | 5/6V | 90 | 1200 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0AG-014B | 12/14V | 30 | 1200 | | |
| | 656,657,400,464,655 | WF3126-0AG-024B | 24V | 15 | 1200 | | |
| | 656,657,400,464,655 | WF3127-0AG-028B | 28V | 15 | 1400 | | |
| | | WF3127-0AG-048B | 48V | 12 | 1190 | | |
| | | WF3127-0AG-120A | 120VAC | 10 | 1050 | | |
| 470nm Super Blue InGaN  WF321  | 159,259,555,1995-7 | WF321-0PB-006B | 5/6V | 15 | 116 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only Replace WF321 With W321 for Std. Beam (15°) |
| | 124,658,2080,936 | WF321-0PB-014B | 12/14V | 15 | 116 | | |
| | 656,657,400,464,655 | WF321-0PB-024B | 24V | 15 | 116 | | |
| | 656,657,400,464,655 | WF321-0PB-028B | 28V | 15 | 116 | | |
| | | WF321-0PB-048B | 48V | 12 | 84 | | |
| | | WF321-0PB-120A | 120VAC | 10 | 106 | | |
| 470nm Super Blue InGaN  WF3126/ WF3127  | 159,259,555,1995-7 | WF3126-0PB-006B | 5/6V | 90 | 360 | 120° | Contact Polarity B = Bipolar AC/DC A = AC only V = DC only |
| | 124,658,2080,936 | WF3126-0PB-014B | 12/14V | 30 | 360 | | |
| | 656,657,400,464,655 | WF3127-0PB-024B | 24V | 15 | 420 | | |
| | 656,657,400,464,655 | WF3127-0PB-028B | 28V | 15 | 420 | | |
| | | WF3127-0PB-048B | 48V | 12 | 336 | | |
| | | WF3127-0PB-120A | 120VAC | 10 | 315 | | |
| | | WF3127-0PB-130V | 130V | 8 | 252 | | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122LLL Rev 08-2000

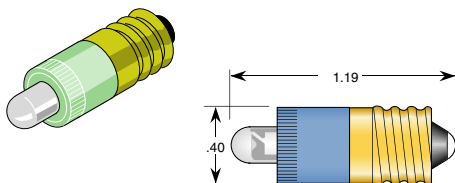


T3-1/4 (9mm) Miniature Screw Based LEDs

| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|----------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  SF321  | 407,502,3708 | SF321-OUR-006B | 5/6V | 20 | 115 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | 3724,1446 | SF321-OUR-014B | 12/14V | 20 | 115 | | |
| | 1449,52 | SF321-OUR-024B | 24V | 15 | 85 | | |
| | | SF321-OUR-028B | 28V | 15 | 85 | | |
| | | SF321-OUR-120A | 120VAC | 10 | 50 | | |
| 612nm Super Orange InGaAlP  SF321  | 407,502,3708 | SF321-UOU-006B | 5/6V | 20 | 130 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | 3724,1446 | SF321-UOU-014B | 12/14V | 20 | 130 | | |
| | 1449,52 | SF321-UOU-024B | 24V | 15 | 98 | | |
| | | SF321-UOU-028B | 28V | 15 | 98 | | |
| | | SF321-UOU-120A | 120VAC | 10 | 65 | | |
| 595nm Super Yellow InGaAlP  SF321  | 407,502,3708 | SF321-UYU-006B | 5/6V | 20 | 116 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | 3724,1446 | SF321-UYU-014B | 12/14V | 20 | 116 | | |
| | 1449,52 | SF321-UYU-024B | 24V | 15 | 75 | | |
| | | SF321-UYU-028B | 28V | 15 | 75 | | |
| | | SF321-UYU-120A | 120VAC | 10 | 39 | | |
| 8000K Cool White SiC/GaN  SF321  | 407,502,3708 | SF321-OCW-006B | 5V | 15 | 160 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | 3724,1446 | SF321-OCW-014B | 12/14V | 15 | 160 | | |
| | 1449,52 | SF321-OCW-024B | 24V | 15 | 160 | | |
| | | SF321-OCW-028B | 28V | 15 | 160 | | |
| | | SF321-OCW-120A | 120VAC | 10 | 106 | | |
| 570nm Lime Green InGaAlP  SF321  | 407,502,3708 | SF321-UG-006B | 5/6V | 20 | 58 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Narrow (12-15°) Beam Intensity 1K mcd @ 20 mA |
| | 3724,1446 | SF321-UG-014B | 12/14V | 20 | 58 | | |
| | 1449,52 | SF321-UG-024B | 24V | 15 | 44 | | |
| | | SF321-UG-028B | 28V | 15 | 44 | | |
| | | SF321-UG-120A | 120VAC | 10 | 29 | | |
| 525nm Aqua Green SiC/GaN  SF321  | 407,502,3708 | SF321-OAG-006B | 5/6V | 15 | 400 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | 3724,1446 | SF321-OAG-014B | 12/14V | 15 | 400 | | |
| | 1449,52 | SF321-OAG-024B | 24V | 15 | 400 | | |
| | | SF321-OAG-028B | 28V | 15 | 400 | | |
| | | SF321-OAG-120A | 120VAC | 10 | 275 | | |
| 470nm Super Blue SiC/GaN  SF321  | 407,502,3708 | SF321-OPB-006B | 5/6V | 15 | 125 | 120° | Center Contact Polarity B = BiPolar AC/DC A = AC only Replace SF321 With S321 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | 3724,1446 | SF321-OPB-014B | 12/14V | 15 | 125 | | |
| | 1449,52 | SF321-OPB-024B | 24V | 15 | 125 | | |
| | | SF321-OPB-028B | 28V | 15 | 125 | | |
| | | SF321-OPB-120A | 120VAC | 10 | 74 | | |

Options

All dimensions in inches. For millimeters multiply by 25.4



Series: S321CB1K (15° Illumination)
PN Example: S321-OPB-024B

LED[®] S6 Candelabra Screw Based LEDs

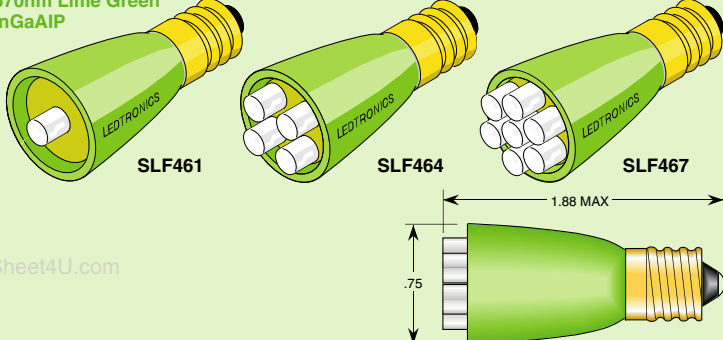
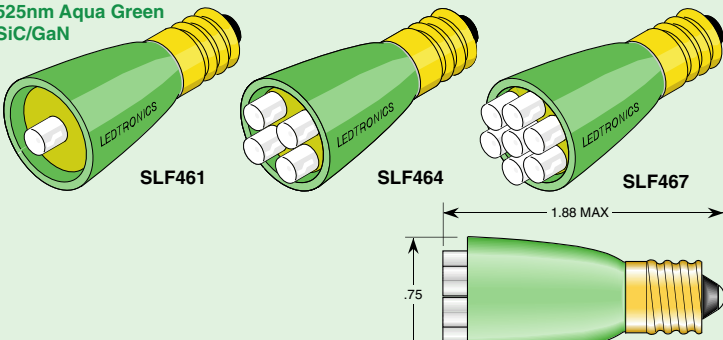
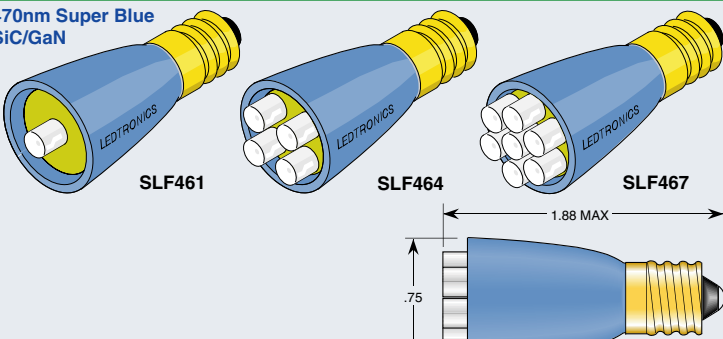
| Miniature Packages | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------|--|----------------|---------------|-----------------------|---|
| | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs SLF461 SLF464 SLF467 | SLF461-0UR-024B | 24V | 20 | 115 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace SLF461 With SL461 for Narrow Beam (15°) 1.6K mcd/52Ft.Cd @ 20mA |
| | SLF461-0UR-120A | 120VAC | 10 | 50 | | |
| | SLF461-0UR-130B | 130V | 8 | 40 | | |
| | SLF461-0UR-220A | 220VAC | 4 | 15 | | |
| | SLF464-0UR-024B | 24V | 20 | 460 | | |
| | SLF464-0UR-120A | 120VAC | 10 | 200 | | |
| | SLF464-0UR-130B | 130V | 8 | 160 | | |
| | SLF464-0UR-220A | 220VAC | 4 | 60 | | |
| | SLF467-0UR-024B | 24V | 20 | 800 | | |
| | SLF467-0UR-120A | 120VAC | 10 | 350 | | |
| | SLF467-0UR-130B | 130V | 8 | 280 | | |
| | SLF467-0UR-220A | 220VAC | 4 | 105 | | |
| 612nm Super Orange InGaAlP SLF461 SLF464 SLF467 | SLF461-0UO-024B | 24V | 20 | 130 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace SLF461 With SL461 for Narrow Beam (15°) 3.5 K mcd@ 20mA |
| | SLF461-0UO-120A | 120VAC | 10 | 65 | | |
| | SLF461-0UO-130B | 130V | 8 | 52 | | |
| | SLF461-0UO-220A | 220VAC | 4 | 26 | | |
| | SLF464-0UO-024B | 24V | 20 | 520 | | |
| | SLF464-0UO-120A | 120VAC | 10 | 260 | | |
| | SLF464-0UO-130B | 130V | 8 | 208 | | |
| | SLF464-0UO-220A | 220VAC | 4 | 104 | | |
| | SLF467-0UO-024B | 24V | 20 | 910 | | |
| | SLF467-0UO-120A | 120VAC | 10 | 455 | | |
| | SLF467-0UO-130B | 130V | 8 | 364 | | |
| | SLF467-0UO-220A | 220VAC | 4 | 182 | | |
| 595nm Super Yellow InGaAlP SLF461 SLF464 SLF467 | SLF461-0UY-024B | 24V | 20 | 116 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace SLF461 With SL461 for Narrow Beam (15°) 3.2K mcd@ 20mA |
| | SLF461-0UY-120A | 120VAC | 10 | 39 | | |
| | SLF461-0UY-130B | 130V | 8 | 24 | | |
| | SLF461-0UY-220A | 220VAC | 4 | 4 | | |
| | SLF464-0UY-024B | 24V | 20 | 464 | | |
| | SLF464-0UY-120A | 120VAC | 10 | 156 | | |
| | SLF464-0UY-130B | 130V | 8 | 96 | | |
| | SLF464-0UY-220A | 220VAC | 4 | 16 | | |
| | SLF467-0UY-024B | 24V | 20 | 812 | | |
| | SLF467-0UY-120A | 120VAC | 10 | 273 | | |
| | SLF467-0UY-130B | 130V | 8 | 168 | | |
| | SLF467-0UY-220A | 220VAC | 4 | 28 | | |
| 8000K Cool White SiC/GaN SLF461 SLF464 SLF467 | SLF461-0CW-024B | 24V | 15 | 160 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Std. Beam (50°) |
| | SLF461-0CW-120A | 120VAC | 10 | 106 | | |
| | SLF461-0CW-130B | 130V | 8 | 85 | | |
| | SLF461-0CW-220A | 220VAC | 4 | 42 | | |
| | SLF464-0CW-024B | 24V | 15 | 640 | | |
| | SLF464-0CW-120A | 120VAC | 10 | 424 | | |
| | SLF464-0CW-130B | 130V | 8 | 340 | | |
| | SLF464-0CW-220A | 220VAC | 4 | 168 | | |
| | SLF467-0CW-024B | 24V | 15 | 960 | | |
| | SLF467-0CW-120A | 120VAC | 10 | 742 | | |
| | SLF467-0CW-130B | 130V | 8 | 595 | | |
| | SLF467-0CW-220A | 220VAC | 4 | 294 | | |

All dimensions in inches. For millimeters multiply by 25.4

Log # 122N Rev 09-2000

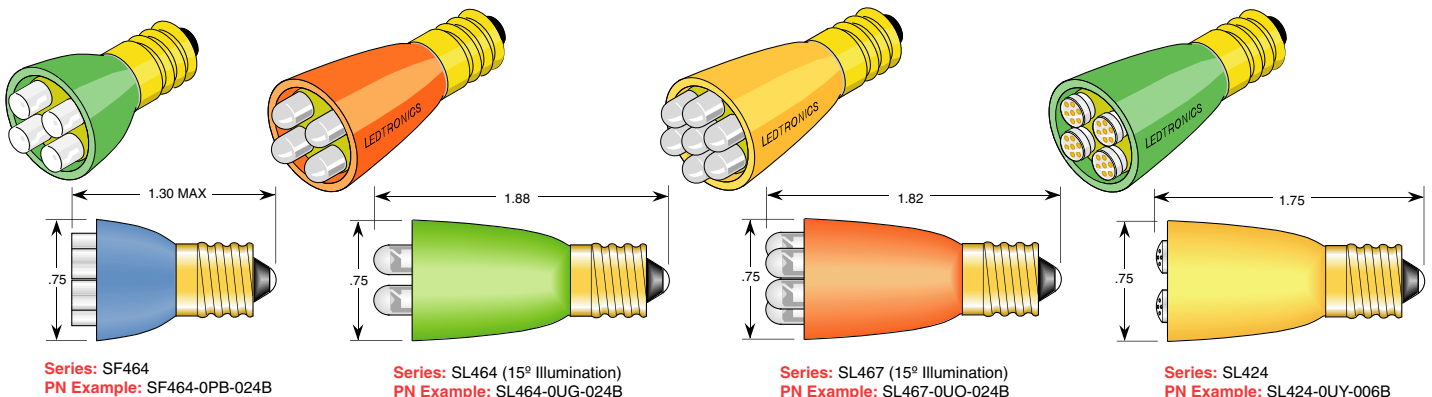


S6 Candelabra Screw Based LEDs

| Miniature Packages | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------|--|----------------|---------------|-----------------------|---|
| | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 570nm Lime Green InGaAlP  SLF461 SLF464 SLF467 1.88 MAX .75 | SLF461-0UG-024B | 24V | 20 | 58 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace SLF461 With SL461 for Narrow Beam (12-15°) 1K mcd @ 20mA |
| | SLF461-0UG-120A | 120VAC | 10 | 29 | | |
| | SLF461-0UG-130B | 130V | 8 | 23 | | |
| | SLF461-0UG-220A | 220VAC | 4 | 12 | | |
| | SLF464-0UG-024B | 24V | 20 | 232 | | |
| | SLF464-0UG-120A | 120VAC | 10 | 116 | | |
| | SLF464-0UG-130B | 130V | 8 | 92 | | |
| | SLF464-0UG-220A | 220VAC | 4 | 48 | | |
| | SLF467-0UG-024B | 24V | 20 | 406 | | |
| | SLF467-0UG-120A | 120VAC | 10 | 203 | | |
| | SLF467-0UG-130B | 130V | 8 | 161 | | |
| | SLF467-0UG-220A | 220VAC | 4 | 84 | | |
| 525nm Aqua Green SiC/GaN  SLF461 SLF464 SLF467 1.88 MAX .75 | SLF461-0AG-024B | 24V | 15 | 400 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace SLF461 With SL461 for Narrow Beam (15°) 7K mcd/250 Ft.Cd @ 15mA |
| | SLF461-0AG-120A | 120VAC | 10 | 275 | | |
| | SLF461-0AG-130B | 130V | 8 | 230 | | |
| | SLF461-0AG-220A | 220VAC | 4 | 140 | | |
| | SLF464-0AG-024B | 24V | 15 | 1600 | | |
| | SLF464-0AG-120A | 120VAC | 10 | 1100 | | |
| | SLF464-0AG-130B | 130V | 8 | 920 | | |
| | SLF464-0AG-220A | 220VAC | 4 | 560 | | |
| | SLF466-0AG-024B | 24V | 15 | 2400 | | |
| | SLF467-0AG-120A | 120VAC | 10 | 1900 | | |
| | SLF467-0AG-130B | 130V | 8 | 1600 | | |
| | SLF467-0AG-220A | 220VAC | 4 | 980 | | |
| 470nm Super Blue SiC/GaN  SLF461 SLF464 SLF467 1.88 MAX .75 | SLF461-0PB-024B | 24V | 15 | 116 | 120° | Center Contact Polarity B = Bipolar AC/DC A = AC only Replace BF321 With B321 for Std. Beam (15°) |
| | SLF461-0PB-120A | 120VAC | 10 | 74 | | |
| | SLF461-0PB-130B | 130V | 8 | 53 | | |
| | SLF461-0PB-220A | 220VAC | 4 | 7 | | |
| | SLF464-0PB-024B | 24V | 15 | 464 | | |
| | SLF464-0PB-120A | 120VAC | 10 | 296 | | |
| | SLF464-0PB-130B | 130V | 8 | 212 | | |
| | SLF464-0PB-220A | 220VAC | 4 | 28 | | |
| | SLF467-0PB-024B | 24V | 15 | 812 | | |
| | SLF467-0PB-120A | 120VAC | 10 | 518 | | |
| | SLF467-0PB-130B | 130V | 8 | 370 | | |
| | SLF467-0PB-220A | 220VAC | 4 | 49 | | |

Options

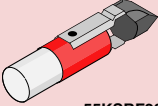
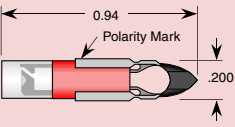

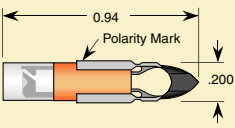
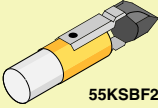
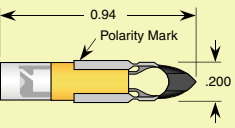
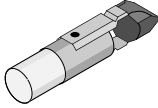
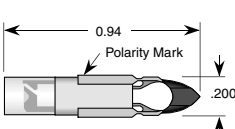
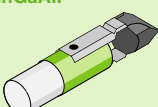
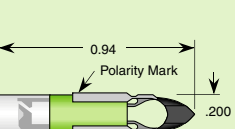

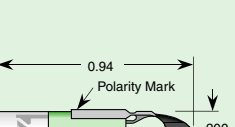

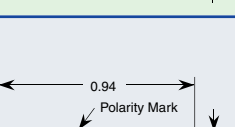
All dimensions in inches. For millimeters multiply by 25.4



Log # 122P Rev 10-2000

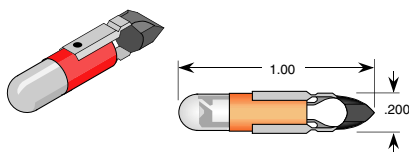


T5.5K European Telephone Slide Based LEDs

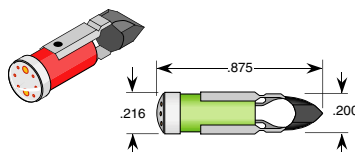
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|--------------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  55KSBF200  | | 55KSBF200-0UR-006V | 5/6V | 20 | 115 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | | 55KSBF200-0UR-014V | 12/14V | 20 | 115 | | |
| | | 55KSBF200-0UR-024V | 24V | 15 | 85 | | |
| | | 55KSBF200-0UR-028V | 28V | 15 | 85 | | |
| | | 55KSBF200-0UR-048V | 48V | 12 | 65 | | |
| | | 55KSBF200-0UR-120A | 120VAC | 10 | 50 | | |
| 612nm Super Orange InGaAlP  55KSBF200  | | 55KSBF200-0UO-006V | 5/6V | 20 | 130 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | | 55KSBF200-0UO-014V | 12/14V | 20 | 130 | | |
| | | 55KSBF200-0UO-024V | 24V | 15 | 98 | | |
| | | 55KSBF200-0UO-028V | 28V | 15 | 98 | | |
| | | 55KSBF200-0UO-048V | 48V | 12 | 78 | | |
| | | 55KSBF200-0UO-120A | 120VAC | 10 | 65 | | |
| 595nm Super Yellow InGaAlP  55KSBF200  | | 55KSBF200-0UY-006V | 5/6V | 20 | 116 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | | 55KSBF200-0UY-014V | 12/14V | 20 | 116 | | |
| | | 55KSBF200-0UY-024V | 24V | 15 | 75 | | |
| | | 55KSBF200-0UY-028V | 28V | 15 | 75 | | |
| | | 55KSBF200-0UY-048V | 48V | 12 | 54 | | |
| | | 55KSBF200-0UY-120A | 120VAC | 10 | 39 | | |
| 8000K Cool White SiC/GaN  55KSBF200  | | 55KSBF200-0CW-006V | 5V | 15 | 160 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | | 55KSBF200-0CW-014V | 12/14V | 15 | 160 | | |
| | | 55KSBF200-0CW-024V | 24V | 15 | 160 | | |
| | | 55KSBF200-0CW-028V | 28V | 15 | 160 | | |
| | | 55KSBF200-0CW-048V | 48V | 12 | 128 | | |
| | | 55KSBF200-0CW-120A | 120VAC | 10 | 106 | | |
| 570nm Lime Green InGaAlP  55KSBF200  | | 55KSBF200-0UG-006V | 5/6V | 20 | 58 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| | | 55KSBF200-0UG-014V | 12/14V | 20 | 58 | | |
| | | 55KSBF200-0UG-024V | 24V | 15 | 44 | | |
| | | 55KSBF200-0UG-028V | 28V | 15 | 44 | | |
| | | 55KSBF200-0UG-048V | 48V | 12 | 35 | | |
| | | 55KSBF200-0UG-120A | 120VAC | 10 | 29 | | |
| 525nm Aqua Green SiC/GaN  55KSBF200  | | 55KSBF200-0AG-006V | 5/6V | 15 | 400 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | | 55KSBF200-0AG-014V | 12/14V | 15 | 400 | | |
| | | 55KSBF200-0AG-024V | 24V | 15 | 400 | | |
| | | 55KSBF200-0AG-028V | 28V | 15 | 400 | | |
| | | 55KSBF200-0AG-048V | 48V | 12 | 320 | | |
| | | 55KSBF200-0AG-120A | 120VAC | 10 | 275 | | |
| 470nm Super Blue SiC/GaN  55KSBF200  | | 55KSBF200-0PB-006V | 5/6V | 15 | 125 | 120° | Contact Polarity V = DC only A = AC only Replace 55KSBF200 With 55KSB200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | | 55KSBF200-0PB-014V | 12/14V | 15 | 125 | | |
| | | 55KSBF200-0PB-024V | 24V | 15 | 125 | | |
| | | 55KSBF200-0PB-028V | 28V | 15 | 125 | | |
| | | 55KSBF200-0PB-048V | 48V | 12 | 84 | | |
| | | 55KSBF200-0PB-120A | 120VAC | 10 | 74 | | |

Options

All dimensions in inches. For millimeters multiply by 25.4



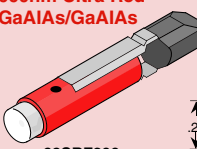
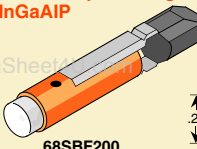
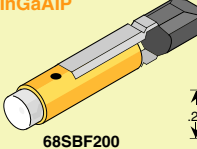
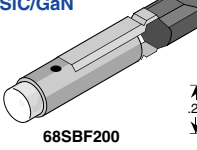
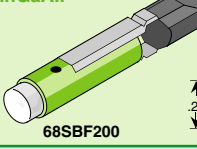
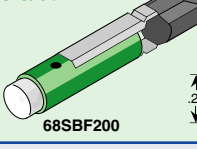
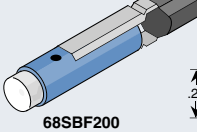
Series: 55KSB200 (15° Illumination)
PN Example: 55KSB200-0UO-024V



Series: 55KSB206 (160° Illumination)
PN Example: 55KSB206-0AG-024V

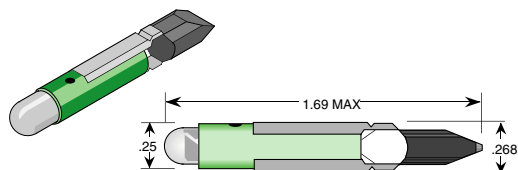


T6.8 European Telephone Slide Based LEDs

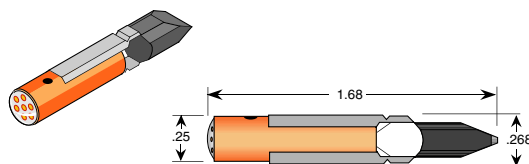
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|-------------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  68SBF200 | | 68SBF200-0UR-006B | 5/6V | 20 | 115 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @20 mA |
| | | 68SBF200-0UR-014B | 12/14V | 20 | 115 | | |
| | | 68SBF200-0UR-024B | 24V | 15 | 85 | | |
| | | 68SBF200-0UR-028B | 28V | 15 | 85 | | |
| | | 68SBF200-0UR-048B | 48V | 12 | 65 | | |
| | | 68SBF200-0UR-120A | 120VAC | 10 | 50 | | |
| 612nm Super Orange InGaAlP  68SBF200 | | 68SBF200-0UO-006B | 5/6V | 20 | 130 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | | 68SBF200-0UO-014B | 12/14V | 20 | 130 | | |
| | | 68SBF200-0UO-024B | 24V | 15 | 98 | | |
| | | 68SBF200-0UO-028B | 28V | 15 | 98 | | |
| | | 68SBF200-0UO-048B | 48V | 12 | 78 | | |
| | | 68SBF200-0UO-120A | 120VAC | 10 | 65 | | |
| 595nm Super Yellow InGaAlP  68SBF200 | | 68SBF200-0UY-006B | 5/6V | 20 | 116 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | | 68SBF200-0UY-014B | 12/14V | 20 | 116 | | |
| | | 68SBF200-0UY-024B | 24V | 15 | 75 | | |
| | | 68SBF200-0UY-028B | 28V | 15 | 75 | | |
| | | 68SBF200-0UY-048B | 48V | 12 | 54 | | |
| | | 68SBF200-0UY-120A | 120VAC | 10 | 39 | | |
| 8000K Cool White SiC/GaN  68SBF200 | | 68SBF200-0CW-006B | 5V | 15 | 160 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | | 68SBF200-0CW-014B | 12/14V | 15 | 160 | | |
| | | 68SBF200-0CW-024B | 24V | 15 | 160 | | |
| | | 68SBF200-0CW-028B | 28V | 15 | 160 | | |
| | | 68SBF200-0CW-048B | 48V | 12 | 128 | | |
| | | 68SBF200-0CW-120A | 120VAC | 10 | 106 | | |
| 570nm Lime Green InGaAlP  68SBF200 | | 68SBF200-0UG-006B | 5/6V | 20 | 58 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| | | 68SBF200-0UG-014B | 12/14V | 20 | 58 | | |
| | | 68SBF200-0UG-024B | 24V | 15 | 44 | | |
| | | 68SBF200-0UG-028B | 28V | 15 | 44 | | |
| | | 68SBF200-0UG-048B | 48V | 12 | 35 | | |
| | | 68SBF200-0UG-120A | 120VAC | 10 | 29 | | |
| 525nm Aqua Green SiC/GaN  68SBF200 | | 68SBF200-0AG-006B | 5/6V | 15 | 400 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | | 68SBF200-0AG-014B | 12/14V | 15 | 400 | | |
| | | 68SBF200-0AG-024B | 24V | 15 | 400 | | |
| | | 68SBF200-0AG-028B | 28V | 15 | 400 | | |
| | | 68SBF200-0AG-048B | 48V | 12 | 320 | | |
| | | 68SBF200-0AG-120A | 120VAC | 10 | 275 | | |
| 470nm Super Blue SiC/GaN  68SBF200 | | 68SBF200-0PB-006B | 5/6V | 15 | 125 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 68SBF200 With 68SB200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | | 68SBF200-0PB-014B | 12/14V | 15 | 125 | | |
| | | 68SBF200-0PB-024B | 24V | 15 | 125 | | |
| | | 68SBF200-0PB-028B | 28V | 15 | 125 | | |
| | | 68SBF200-0PB-048B | 48V | 12 | 84 | | |
| | | 68SBF200-0PB-120A | 120VAC | 10 | 74 | | |

Options

All dimensions in inches. For millimeters multiply by 25.4




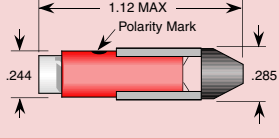

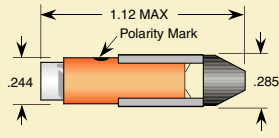
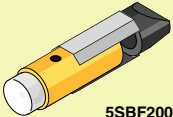
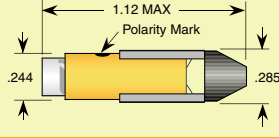

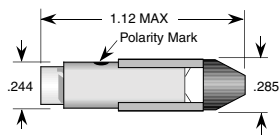

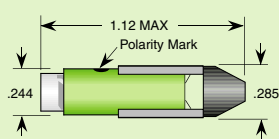

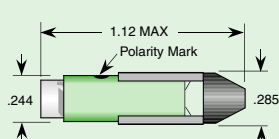
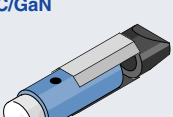
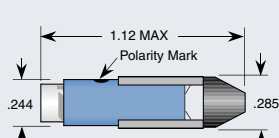
Series: 68SB200 (15° Illumination)
PN Example: 68SB200-0AG-024B



Series: 68SB206 (6 Chip 160° Illumination)
PN Example: 68SB206-0UO-120A

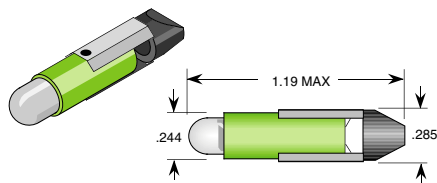


T2 ANSI #5 Telephone Slide Based LEDs

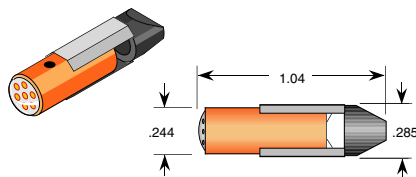
| Subminiature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|---|-----------------------|------------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  5SBF200  | 6 PSB | 5SBF200-0UR-006B | 5/6V | 20 | 115 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| | 12 PSB | 5SBF200-0UR-014B | 12/14V | 20 | 115 | | |
| | 24 PSB | 5SBF200-0UR-024B | 24V | 15 | 85 | | |
| | 28 PSB | 5SBF200-0UR-028B | 28V | 15 | 85 | | |
| | | 5SBF200-0UR-048B | 48V | 12 | 65 | | |
| 612nm Super Orange InGaAlP  5SBF200  | 120 PSB | 5SBF200-0UR-120A | 120VAC | 10 | 50 | | |
| | 6 PSB | 5SBF200-0UO-006B | 5/6V | 20 | 130 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Narrow (15°) Beam Intensity 3.5K mcd @ 20 mA |
| | 12 PSB | 5SBF200-0UO-014B | 12/14V | 20 | 130 | | |
| | 24 PSB | 5SBF200-0UO-024B | 24V | 15 | 98 | | |
| | 28 PSB | 5SBF200-0UO-028B | 28V | 15 | 98 | | |
| | | 5SBF200-0UO-048B | 48V | 12 | 78 | | |
| 595nm Super Yellow InGaAlP  5SBF200  | 120 PSB | 5SBF200-0UO-120A | 120VAC | 10 | 65 | | |
| | 6 PSB | 5SBF200-0UY-006B | 5/6V | 20 | 116 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Narrow (15°) Beam Intensity 3.2K mcd @ 20 mA |
| | 12 PSB | 5SBF200-0UY-014B | 12/14V | 20 | 116 | | |
| | 24 PSB | 5SBF200-0UY-024B | 24V | 15 | 75 | | |
| | 28 PSB | 5SBF200-0UY-028B | 28V | 15 | 75 | | |
| | | 5SBF200-0UY-048B | 48V | 12 | 54 | | |
| 8000K Cool White SiC/GaN  5SBF200  | 120 PSB | 5SBF200-0UY-120A | 120VAC | 10 | 39 | | |
| | 6 PSB | 5SBF200-0CW-006B | 5V | 15 | 160 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | 12 PSB | 5SBF200-0CW-014B | 12/14V | 15 | 160 | | |
| | 24 PSB | 5SBF200-0CW-024B | 24V | 15 | 160 | | |
| | 28 PSB | 5SBF200-0CW-028B | 28V | 15 | 160 | | |
| | | 5SBF200-0CW-048B | 48V | 12 | 128 | | |
| 570nm Lime Green InGaAlP  5SBF200  | 120 PSB | 5SBF200-0CW-120A | 120VAC | 10 | 106 | | |
| | 6 PSB | 5SBF200-0UG-006B | 5/6V | 20 | 58 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Narrow (12-15°) Beam Intensity 1K mcd @ 20 mA |
| | 12 PSB | 5SBF200-0UG-014B | 12/14V | 20 | 58 | | |
| | 24 PSB | 5SBF200-0UG-024B | 24V | 15 | 44 | | |
| | 28 PSB | 5SBF200-0UG-028B | 28V | 15 | 44 | | |
| | | 5SBF200-0UG-048B | 48V | 12 | 35 | | |
| 525nm Aqua Green SiC/GaN  5SBF200  | 120 PSB | 5SBF200-0UG-120A | 120VAC | 10 | 29 | | |
| | 6 PSB | 5SBF200-0AG-006B | 5/6V | 15 | 400 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | 12 PSB | 5SBF200-0AG-014B | 12/14V | 15 | 400 | | |
| | 24 PSB | 5SBF200-0AG-024B | 24V | 15 | 400 | | |
| | 28 PSB | 5SBF200-0AG-028B | 28V | 15 | 400 | | |
| | | 5SBF200-0AG-048B | 48V | 12 | 320 | | |
| 470nm Super Blue SiC/GaN  5SBF200  | 120 PSB | 5SBF200-0AG-120A | 120VAC | 10 | 275 | | |
| | 6 PSB | 5SBF200-0PB-006B | 5/6V | 15 | 125 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 5SBF200 With 5SB200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | 12 PSB | 5SBF200-0PB-014B | 12/14V | 15 | 125 | | |
| | 24 PSB | 5SBF200-0PB-024B | 24V | 15 | 125 | | |
| | 28 PSB | 5SBF200-0PB-028B | 28V | 15 | 125 | | |
| | | 5SBF200-0PB-048B | 48V | 12 | 84 | | |
| | 120 PSB | 5SBF200-0PB-120A | 120VAC | 10 | 74 | | |

Options

All dimensions in inches. For millimeters multiply by 25.4



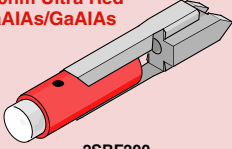
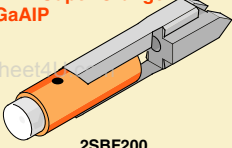
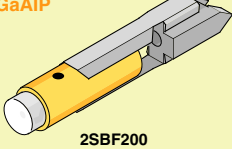
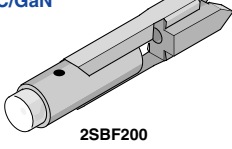
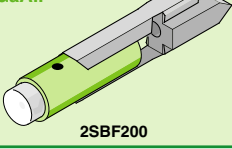
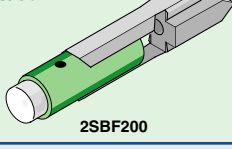
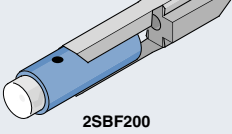
Series: 5SB200 (15° Illumination)
PN Example: 5SB200-0UG-024B



Series: 5SB206 (160° Illumination)
PN Example: 5SB206-0UO-028B

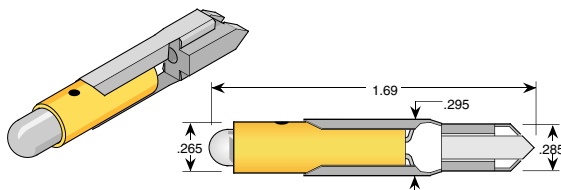


T2 ANSI #2 & #3 Telephone Slide Based LEDs

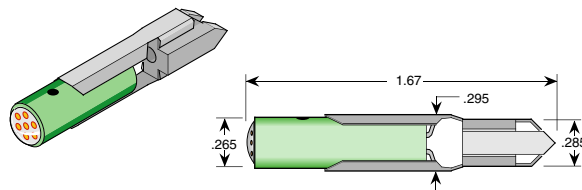
| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|------------------|--|----------------|---------------|-----------------------|--|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  2SBF200 | | 2SBF200-0UR-006B | 5/6V | 20 | 115 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @20 mA |
| | | 2SBF200-0UR-014B | 12/14V | 20 | 115 | | |
| | 24E,24X | 2SBF200-0UR-024B | 24V | 15 | 85 | | |
| | | 2SBF200-0UR-028B | 28V | 15 | 85 | | |
| | 48A,D,C | 2SBF200-0UR-048B | 48V | 12 | 65 | | |
| 612nm Super Orange InGaAlP  2SBF200 | | 2SBF200-0UO-006B | 5/6V | 20 | 130 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| | | 2SBF200-0UO-014B | 12/14V | 20 | 130 | | |
| | 24E,24X | 2SBF200-0UO-024B | 24V | 15 | 98 | | |
| | | 2SBF200-0UO-028B | 28V | 15 | 98 | | |
| | 48A,D,C | 2SBF200-0UO-048B | 48V | 12 | 78 | | |
| 595nm Super Yellow InGaAlP  2SBF200 | | 2SBF200-0UY-006B | 5/6V | 20 | 116 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| | | 2SBF200-0UY-014B | 12/14V | 20 | 116 | | |
| | 24E,24X | 2SBF200-0UY-024B | 24V | 15 | 75 | | |
| | | 2SBF200-0UY-028B | 28V | 15 | 75 | | |
| | 48A,D,C | 2SBF200-0UY-048B | 48V | 12 | 54 | | |
| 8000K Cool White SiC/GaN  2SBF200 | | 2SBF200-0CW-006B | 5V | 15 | 160 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| | | 2SBF200-0CW-014B | 12/14V | 15 | 160 | | |
| | 24E,24X | 2SBF200-0CW-024B | 24V | 15 | 160 | | |
| | | 2SBF200-0CW-028B | 28V | 15 | 160 | | |
| | 48A,D,C | 2SBF200-0CW-048B | 48V | 12 | 128 | | |
| 570nm Lime Green InGaAlP  2SBF200 | | 2SBF200-0UG-006B | 5/6V | 20 | 58 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Narrow (12-15°) Beam Intensity 1K mcd @ 20 mA |
| | | 2SBF200-0UG-014B | 12/14V | 20 | 58 | | |
| | 24E,24X | 2SBF200-0UG-024B | 24V | 15 | 44 | | |
| | | 2SBF200-0UG-028B | 28V | 15 | 44 | | |
| | 48A,D,C | 2SBF200-0UG-048B | 48V | 12 | 35 | | |
| 525nm Aqua Green SiC/GaN  2SBF200 | | 2SBF200-0AG-006B | 5/6V | 15 | 400 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| | | 2SBF200-0AG-014B | 12/14V | 15 | 400 | | |
| | 24E,24X | 2SBF200-0AG-024B | 24V | 15 | 400 | | |
| | | 2SBF200-0AG-028B | 28V | 15 | 400 | | |
| | 48A,D,C | 2SBF200-0AG-048B | 48V | 12 | 320 | | |
| 470nm Super Blue SiC/GaN  2SBF200 | | 2SBF200-0PB-006B | 5/6V | 15 | 125 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only Replace 2SBF200 With 2SB200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |
| | | 2SBF200-0PB-014B | 12/14V | 15 | 125 | | |
| | 24E,24X | 2SBF200-0PB-024B | 24V | 15 | 125 | | |
| | | 2SBF200-0PB-028B | 28V | 15 | 125 | | |
| | 48A,D,C | 2SBF200-0PB-048B | 48V | 12 | 84 | | |
| | | 2SBF200-0PB-120A | 120VAC | 10 | 74 | | |

Options

All dimensions in inches. For millimeters multiply by 25.4



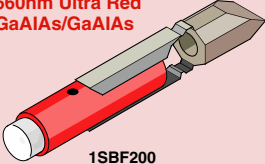
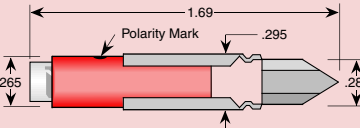
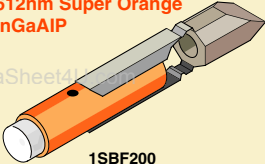
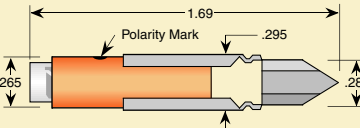
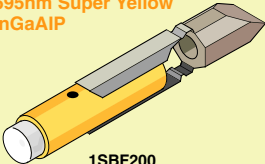
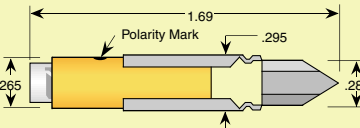
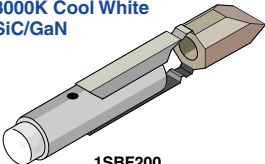
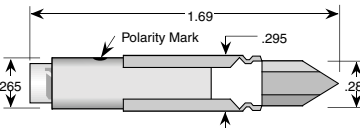
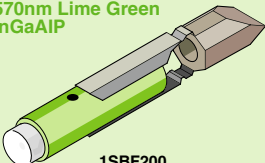
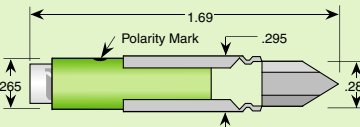
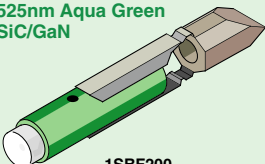
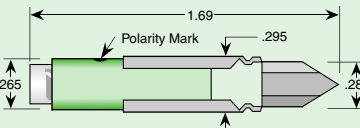
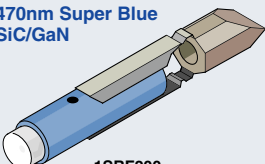
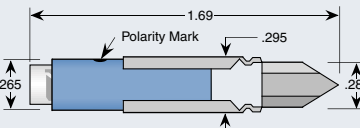
Series: 2SB200 (15° Illumination)
PN Example: 2SB200-0UY-024B



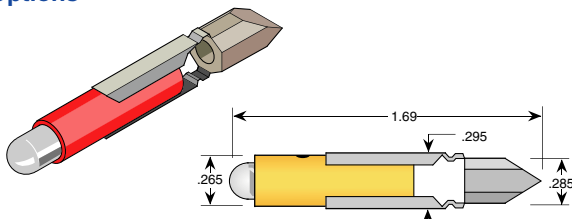
Series: 2SB206 (160° Illumination)
PN Example: 2SB206-0AG-028B



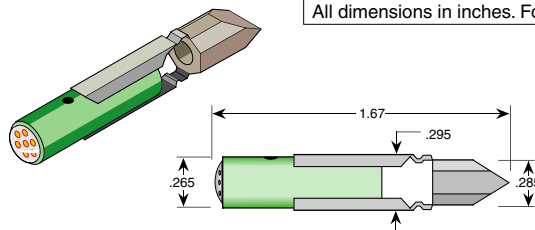
T2 #1 Telephone Slide Based LEDs

| Miniature Packages | Replaces Incandescent | Part Number | Electrical-Optical Characteristics (Ta = 25°C) | | | Angle of Illumination | Special Features |
|--|-----------------------|------------------|--|----------------|---------------|-----------------------|---|
| | | | Voltage V typ | Current mA typ | Intensity mcd | | |
| 660nm Ultra Red GaAlAs/GaAlAs  1SBF200  | | 1SBF200-0UR-006B | 5/6V | 20 | 115 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0UR-014B | 12/14V | 20 | 115 | | |
| | | 1SBF200-0UR-024B | 24V | 15 | 85 | | |
| | | 1SBF200-0UR-028B | 28V | 15 | 85 | | |
| | | 1SBF200-0UR-048B | 48V | 12 | 65 | | |
| | | 1SBF200-0UR-120A | 120VAC | 10 | 50 | | Replace 2SBF200 With 2SB200 Narrow Beam (15°) Intensity 1.6K mcd/52 Ft.Cd @ 20 mA |
| 612nm Super Orange InGaAlP  1SBF200  | | 1SBF200-0UO-006B | 5/6V | 20 | 130 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0UO-014B | 12/14V | 20 | 130 | | |
| | | 1SBF200-0UO-024B | 24V | 15 | 98 | | |
| | | 1SBF200-0UO-028B | 28V | 15 | 98 | | |
| | | 1SBF200-0UO-048B | 48V | 12 | 78 | | |
| | | 1SBF200-0UO-120A | 120VAC | 10 | 65 | | Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 3.5K mcd@20 mA |
| 595nm Super Yellow InGaAlP  1SBF200  | | 1SBF200-0UY-006B | 5/6V | 20 | 116 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0UY-014B | 12/14V | 20 | 116 | | |
| | | 1SBF200-0UY-024B | 24V | 15 | 75 | | |
| | | 1SBF200-0UY-028B | 28V | 15 | 75 | | |
| | | 1SBF200-0UY-048B | 48V | 12 | 54 | | |
| | | 1SBF200-0UY-120A | 120VAC | 10 | 39 | | Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 3.2K mcd@20 mA |
| 8000K Cool White SiC/GaN  1SBF200  | | 1SBF200-0CW-006B | 5V | 15 | 160 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0CW-014B | 12/14V | 15 | 160 | | |
| | | 1SBF200-0CW-024B | 24V | 15 | 160 | | |
| | | 1SBF200-0CW-028B | 28V | 15 | 160 | | |
| | | 1SBF200-0CW-048B | 48V | 12 | 128 | | |
| | | 1SBF200-0CW-120A | 120VAC | 10 | 106 | | Replace 2SBF200 With 2SB200 Std. (50°) Beam Intensity 750 mcd/75 Ft. cd |
| 570nm Lime Green InGaAlP  1SBF200  | | 1SBF200-0UG-006B | 5/6V | 20 | 58 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0UG-014B | 12/14V | 20 | 58 | | |
| | | 1SBF200-0UG-024B | 24V | 15 | 44 | | |
| | | 1SBF200-0UG-028B | 28V | 15 | 44 | | |
| | | 1SBF200-0UG-048B | 48V | 12 | 35 | | |
| | | 1SBF200-0UG-120A | 120VAC | 10 | 29 | | Replace 2SBF200 With 2SB200 Narrow (12-15°) Beam Intensity 1K mcd@ 20 mA |
| 525nm Aqua Green SiC/GaN  1SBF200  | | 1SBF200-0AG-006B | 5/6V | 15 | 400 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0AG-014B | 12/14V | 15 | 400 | | |
| | | 1SBF200-0AG-024B | 24V | 15 | 400 | | |
| | | 1SBF200-0AG-028B | 28V | 15 | 400 | | |
| | | 1SBF200-0AG-048B | 48V | 12 | 320 | | |
| | | 1SBF200-0AG-120A | 120VAC | 10 | 275 | | Replace 2SBF200 With 2SB200 Narrow (15°) Beam Intensity 7K mcd/250 Ft.Cd |
| 470nm Super Blue SiC/GaN  1SBF200  | | 1SBF200-0PB-006B | 5/6V | 15 | 125 | 120° | Contact Polarity B = BiPolar AC/DC A = AC only |
| | | 1SBF200-0PB-014B | 12/14V | 15 | 125 | | |
| | | 1SBF200-0PB-024B | 24V | 15 | 125 | | |
| | | 1SBF200-0PB-028B | 28V | 15 | 125 | | |
| | | 1SBF200-0PB-048B | 48V | 12 | 84 | | |
| | | 1SBF200-0PB-120A | 120VAC | 10 | 74 | | Replace 2SBF200 With 2SB200 Std. (15°) Beam Intensity 2K mcd/60 Ft.Cd |

Options



Series: 1SB200 (15° Illumination)
PN Example: 1SB200-0UY-024B



























Series: BSD-1174 (160° Illumination)
PN Example: BSD-1174-0AG-028B

All dimensions in inches. For millimeters multiply by 25.4



LED Color Chart

| LEDtronics Code | LED Chip Code | Wavelength nm | Color Name | Fwd Voltage Vf @ 20mA | Intensity 5mm LEDs | Viewing Angle | LED Dye Material |
|-----------------|---------------|---|-------------------|-----------------------|--------------------|---------------|---|
| 941 | IR941 |  940 | Infrared | 1.5 | 16mW @ 50mA | 15° | GaAlAs/GaAs - Gallium Aluminum Arsenide/ Gallium Arsenide |
| 881 | IR881 |  880 | Infrared | 1.7 | 18mW @ 50mA | 15° | GaAlAs/GaAs - Gallium Aluminum Arsenide/ Gallium Arsenide |
| 851 | IR851 |  850 | Infrared | 1.7 | 26mW @ 50mA | 15° | GaAlAs/GaAlAs - Gallium Aluminum Arsenide/ Gallium Aluminum Arsenide |
| 0UR | R3KF |  660 | Ultra Red | 1.8 | 2000mcd @ 20mA | 15° | GaAlAs/GaAlAs - Gallium Aluminum Arsenide/ Gallium Aluminum Arsenide |
| 00R | R3/R4/R5 |  635 | High Eff. Red | 2.0 | 200mcd @ 20mA | 15° | GaAsP/GaP - Gallium Arsenic Phosphide /Gallium Phosphide |
| 0ER | E3K |  633 | Super Red | 2.2 | 3500mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 0UO | O3K/O6K |  620 | Super Orange | 2.2 | 4500mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 0UO | O3KF |  612 | Super Orange | 2.2 | 6500mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 00O | O4/O5 |  605 | Orange | 2.1 | 160mcd @ 20mA | 15° | GaAsP/GaP - Gallium Arsenic Phosphide /Gallium Phosphide |
| 0UY | Y3KF |  595 | Super Yellow | 2.2 | 5500mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 0PY | Y3KH |  592 | Super Pure Yellow | 2.1 | 7000mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 00Y | Y3/Y4/Y5 |  585 | Yellow | 2.1 | 100mcd @ 20mA | 15° | GaAsP/GaP - Gallium Arsenic Phosphide /Gallium Phosphide |
| 0IW | IW2K |  4500K | Incand White | 3.6 | 2000mcd @ 20mA | 20° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 0PW | PW4K |  6500K | Pale White | 3.6 | 4000mcd @ 20mA | 20° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 0CW | CW6K |  8000K | Cool White | 3.6 | 6000mcd @ 20mA | 20° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 0LY | LY1K |  574 | Super Lime Yellow | 2.4 | 1000mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 0UG | G1K |  570 | Super Lime Green | 2.0 | 1000mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 00G | G3/G4/G5 |  565 | High Eff. Green | 2.1 | 200mcd @ 20mA | 15° | GaP/GaP - Gallium Phosphide/Gallium Phosphide |
| UPG | PG350 |  560 | Super Pure Green | 2.1 | 350mcd @ 20mA | 15° | InGaAlP - Indium Gallium Aluminum Phosphide |
| 0PG | PG5 |  555 | Pure Green | 2.1 | 80mcd @ 20mA | 15° | GaP/GaP - Gallium Phosphide/Gallium Phosphide |
| 0AG | AG10K |  525 | Aqua Green | 3.5 | 10,000mcd @ 20mA | 15° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 0BG | BG2K |  505 | Blue Green | 3.5 | 2000mcd @ 20mA | 45° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 0PB | PB3K |  470 | Super Blue | 3.6 | 3000mcd @ 20mA | 15° | SiC/GaN - Silicon Carbide/Gallium Nitride |
| 00B | UB500 |  430 | Ultra Blue | 3.8 | 100mcd @ 20mA | 15° | SiC/GaN - Silicon Carbide/Gallium Nitride |