

## Brilliance by design

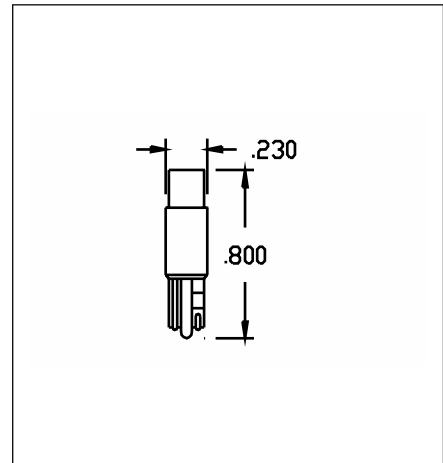
### LED Replacement for Incandescent Lamps

#### MODEL 513

T-1 3/4 Wedge base LED is available in all colors. Direct replacement for T-1 3/4 wedge base incandescent lamps.

#### FEATURES

- Available in all colors and voltages
- Long life LEDs
- Low power consumption
- Direct replacement for: 11\*, 17, 18, 37, 56, 73, 74, 79, 84, 85 & 86



#### HOW TO ORDER

#### NOTE:

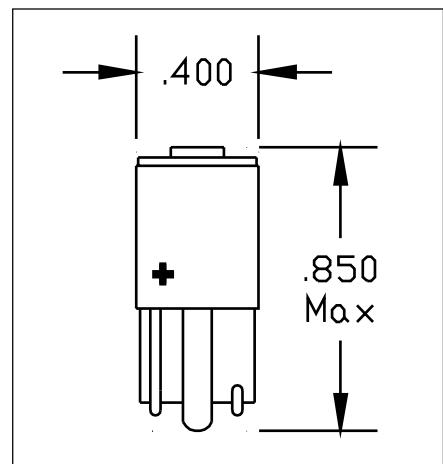
- \* External resistor required
- \*\*For voltage/current specs, see page 7-9

| Voltage | Model No. |
|---------|-----------|
| 2.5vdc  | 513-205X* |
| 5vdc    | 513-5X    |
| 6.3vdc  | 513-603X  |
| 14vdc   | 513-14X   |
| 28vdc   | 513-28X   |

Where the 'X' appears insert: 1-Red, 2-Green, 3-Yellow, 4-Amber, 5-Ultra Green, 6-Ultra Blue, 7-Pure White

#### MODEL 516

T-3 1/4 Bi-pin LED is available in all colors. Direct replacement for the T-3 1/4 wedge base bi-pin incandescent lamps. Unit available in both standard 160 degree viewing angle for switches and wide viewing applications and 30 degree for narrow viewing surfaces that require extra brightness. Please specify when ordering. For example: 516-127D for 12vdc white LED for narrow ultra bright illumination or 516-127 for 12vdc white LED for wide bright illumination.



513 516

#### FEATURES

- Available in all colors and voltages
- Long life LEDs
- Low power consumption
- Direct replacement for: 124, 147, 152, 158, 159, 161, 168, 184, 190, 192-194, 259, 280, 285, 400, 444, 447, 464, 555, 585, 655, 656, 657, 658, 740, 758, 947, 3-501, 3-504, 3-505, 3-507

#### HOW TO ORDER

| Voltage | Model No. |
|---------|-----------|
| 5vdc    | 516-5X    |
| 6vdc    | 516-6X    |
| 7vdc    | 516-7X    |
| 12vdc   | 516-12X   |
| 14vdc   | 516-14X   |
| 24vdc   | 516-24X   |
| 28vdc   | 516-28X   |

Where the 'X' appears insert: 1-Red, 2-Green, 3-Yellow, 4-Amber, 5-Ultra Green, 6-Ultra Blue, 7-Pure White

#### NOTE:

- \*For voltage/current specs, see page 7-9

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## *Brilliance by design*

### LED Replacements for Incandescent Lamps

#### LED Specifications and Technical Data

LED data for models 160, 162, 164, 460, 510, 516, 522, 532, 513, 541

| Color Choice | LED Size | Raw Chip Material | Emitted Color | Wave Length | Viewing Angle (Deg.) | Iv (mcd) Typical | If (mA) Typical | Vf (V) Typical |
|--------------|----------|-------------------|---------------|-------------|----------------------|------------------|-----------------|----------------|
| 1            | T 1-3/4  | GaAlAs            | Red           | 660         | 22                   | 3000-4000        | 20              | 2.1            |
| 2            | T 1-3/4  | Gap               | Green         | 565         | 20                   | 750              | 20              | 1.8            |
| 3            | T 1-3/4  | AllnGap           | Yellow        | 595         | 22                   | 2000-3000        | 25              | 2.1            |
| 4            | T 1-3/4  | AllnGap           | Amber         | 611         | 22                   | 2000-3000        | 25              | 2.1            |
| 5            | T 1-3/4  | InGaN             | Ultra Green   | 575         | 30                   | 2200             | 25              | 3.5            |
| 6            | T 1-3/4  | InGaN             | Blue          | 470         | 30                   | 500              | 25              | 3.5            |
| 7            | T 1-3/4  | InGaN/<br>YAG     | Pure White    |             | 45                   | 1200             | 25              | 3.5            |

LED data for models 159, 197, 311

| Color Choice | LED Size | Raw Chip Material | Emitted Color | Wave Length | Viewing Angle (Deg.) | Iv (mcd) Typical | If (mA) Typical | Vf (V) Typical |
|--------------|----------|-------------------|---------------|-------------|----------------------|------------------|-----------------|----------------|
| 1            | T-1      | GaAlAs            | Red           | 660         | 30                   | 1250             | 20              | 1.8            |
| 2            | T-1      | Gap               | Green         | 568         | 20                   | 500              | 20              | 1.8            |
| 3            | T-1      | AllnGap           | Yellow        | 595         | 30                   | 500              | 25              | 2.1            |
| 4            | T-1      | AllnGap           | Amber         | 611         | 30                   | 500              | 25              | 2.1            |
| 5            | T-1      | InGaN             | Ultra Green   | 575         | 30                   | 1700             | 25              | 3.5            |
| 6            | T-1      | InGaN             | Blue          | 470         | 30                   | 650              | 25              | 3.5            |
| 7            | T-1      | InGaN/<br>YAG     | Pure White    |             | 45                   | 630              | 25              | 3.5            |

**Section 7**

Note: The specifications listed above are subject to change. For special LED requirements and color please contact SloanLED.