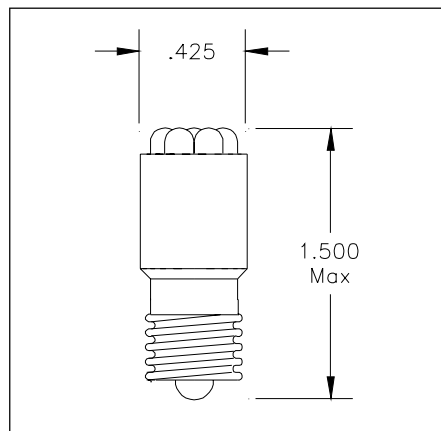


Brilliance by design

T 3 1/4 - LED Lamps Bayonet or Screw Base - Models 159 & 197

MODEL 159

Miniature screw base incandescent replacement LED cluster for incandescent lamps. All models are dual polarity, which accommodate positive center, negative center and AC applications. This unit uses a cluster of high bright LEDs for maximum lumination at low power consumption.



FEATURES

- Long Life LED
- Available in all colors and voltages
- Ultra Bright Green, Blue and White come with single 5mm LED
- Direct incandescent replacement for: 27, 31, 40, 46, 50, 52, 432, 501, 1147, 509K, 1445, 1449

NOTE:

*for voltage/current specs, see page 7-9

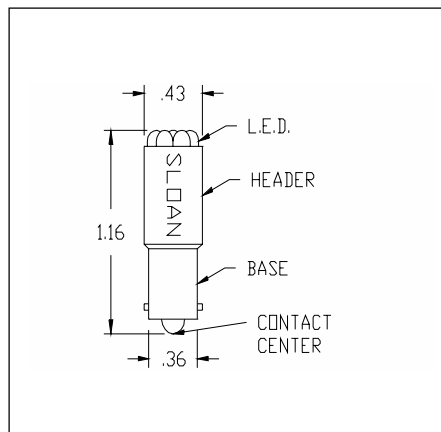
HOW TO ORDER

Voltage	Model No.
5V	159-DP5X
12V	159-DP12X
24V	159-DP24X
28V	159-DP28X
48V	159-DP48X

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

MODEL 197

BA9 base incandescent replacement LED cluster for incandescent lamps. All models are dual polarity, which accommodate positive center, negative center and AC applications. This unit uses a cluster of high bright LEDs for maximum lumination at low power consumption.



159 197

FEATURES

- Long Life LED
- Available in all colors and voltages
- Ultra Bright Green, Blue and White come with single 5mm LED
- Direct replacement for: 24MB, 28MB, 44, 47, 313, 356, 756, 1813, 1818, 1819, 1820, 1821, 1829, 1862, 1864, 1866, 1891

HOW TO ORDER

Voltage	Model No.
5V	197-DP5X
12V	197-DP12X
24V	197-DP24X
28V	197-DP28X
48V	197-DP48X

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

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	AlInGap	Yellow	595	22	2000-3000	25	2.1
4	T 1-3/4	AlInGap	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/ 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	AlInGap	Yellow	595	30	500	25	2.1
4	T-1	AlInGap	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/ YAG	Pure White		45	630	25	3.5

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