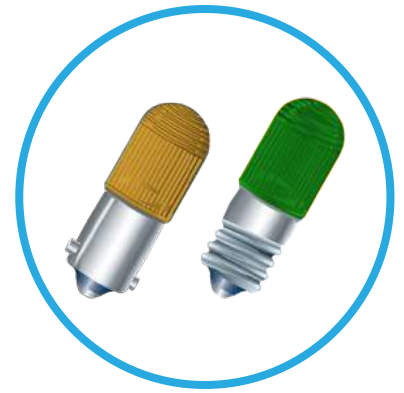
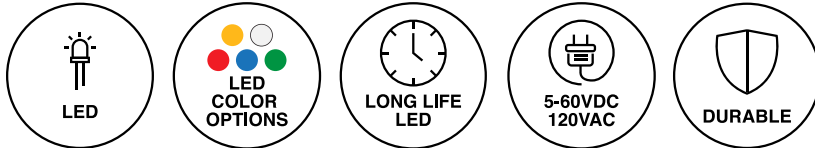


T-3 1/4 Miniature Lamp LED Replacement Lamp with Lens



Direct incandescent replacement LED lamp that delivers improved illumination, reliability and long life. LED lamps are drop in replacements for the less efficient filament lamps, typically used where compatibility, durability and efficiency are needed.



Key Features

- T-3 1/4 miniature LED lamp with lens (light bulb)
- High intensity LED with fresnel lens for improved visibility
- Wide angle for small and medium lens applications
- Voltage: 5-60 VDC or 120VAC
- Base: bayonet, screw
- Available in five LED single colors: red, amber, green, blue, white
- Five lens colors available: red, amber, green, blue, water clear
- Bi-polar is optional
- Low power consumption
- Mounts directly into industry standard sockets
- Single chip based LED
- Direct incandescent replacement
- Low power consumption - uses up to 90% less energy than an incandescent lamp
- Low heat generation, LEDs operate significantly cooler than traditional lamps
- Designed for quick installation and reduces overall cost due to less-frequent replacements
- Fast on/off cycling, shock resistance, and long operating life
- Compliant with RoHS and REACH

1 Model^[1]	
MB403	Bayonet
MS403	Screw

TO ORDER, FOLLOW THE EXAMPLE:

Select one **BOLD** component from each SHADED column in the tables below.

1 Model	2 LED	3 Voltage	4 Lens	5 Bi-Polar
MB403	-R	28	-CR	

→Part Number **MB403-R28-CR**

2 LED	Color	λpk (nm)	Iv^[2] (mcd)	V/C Table^[3]
-R	RED	634	2180	I
-A	AMB	592	2180	I
-G	GRN	520	2400	II
-B	BLU	465	700	II
-W	WHT		1560	II

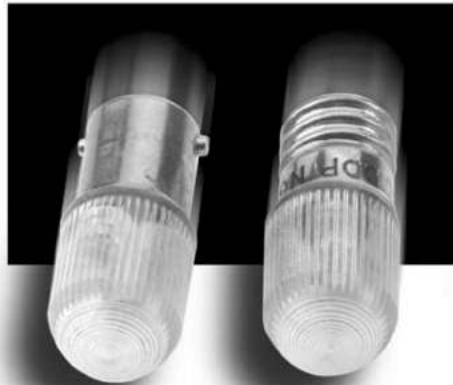
Voltage/Current	
Design Vf/If	Max Vf/If
V/C Table I	
5V/22mA	5.5V/28mA
6V/21mA	7V/27mA
12V/20mA	14V/25mA
15V/24mA	16.5V/28mA
24V/17mA	26V/20mA
28V/16.5mA	30V/18mA
48V/15mA	50V/16mA
60V/9mA	65V/10mA
120VAC/3.5mA	130VAC/4mA

3 Voltage^[4]
5
6
12
15
24
28
48
60
120

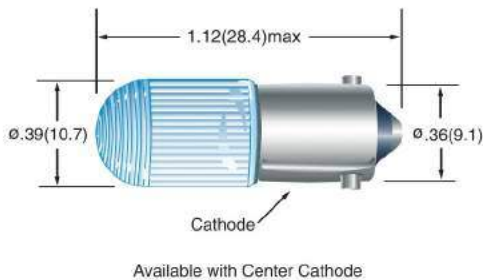
Voltage/Current	
Design Vf/If	Max Vf/If
V/C Table II	
5V/15mA	5.5V/23mA
6V/15mA	7V/25mA
12V/15mA	14V/20mA
15V/15mA	16.5V/18mA
24V/15mA	26V/18mA
28V/15mA	30V/17mA
48V/9.5mA	50V/10mA
60V/7mA	65V/8mA
120VAC/3.5mA	130VAC/4mA

4 Lens
-CR Red
-CA Amber
-CG Green
-CB Blue
-CW Water Clear

5 Bi-Polar
-BP Optional



MB403



MS403



[1] MB403 and MS403 are center anode. Insert C after Model for center cathode (e.g. MB403C).

[2] Iv = typical luminous intensity @ If = 20mA (Ta=25°C). Luminous intensity is measured without the lens. (*2) = 2 LEDs per package.

[3] See Voltage/Current table for design specifications.

[4] Ta = 25°C. Voltages 5 through 60 are VDC. For AC operation, insert AC after Voltage (e.g. 24AC), not required for 120V. Contact factory for VAC design currents. For 120VDC insert DC after Voltage (e.g. 120DC).

All dimensions are in inches (mm)

Tolerances: .xx"(.x) ±.025"(.63) / .xxx"(.xx)±.010"(.25)
Specifications are subject to change without notice.

Series	LED	Voltage	Operating Temp (°C)	Storage Temp (°C)
T-1 3/4 Sub-miniature LED lamp	A	-	-40 to +100	-40 to +100
	B	-	-30 to +85	-40 to +100
	G	-	-30 to +85	-40 to +100
	R	-	-40 to +100	-40 to +100
	W	-	-30 to +85	-40 to +100

* For operating temperature of a specific part number contact VCC

Incandescent Lamp #	Design Voltage	Base Description	VCC Model #	Suggested VCC Part Number
12MB	12	Miniature Bayonet	MB403	MB403-X12-CX-BP
24MB	24	Miniature Bayonet	MB403	MB403-X24-CW-BP
28MB	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
44	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
47	6.	Miniature Bayonet	MB403	MB403-X6AC-CX
48MB	48	Miniature Bayonet	MB403	MB403-X48-CX-BP
53	14.4VAC	Miniature Bayonet	MB403	MB403-X15AC-CX
55	7	Miniature Bayonet	MB403	MB403-X6-CX
57	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
60MB	60	Miniature Bayonet	MB403	MB403-X60-CX-BP
120MB	120VAC	Miniature Bayonet	MB403	MB403-X120-CX
216	14.4VAC	Miniature Bayonet	MB403	MB403-X15AC-CX
239	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
240	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
256	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
313	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
316	6	Miniature Bayonet	MB403	MB403-X6-CX
356	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
363	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
755	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CW
756	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
757	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1302	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
1437	24	Miniature Bayonet	MB403	MB403-X24-CX-BP
1445	14.4VAC	Miniature Bayonet	MB403	MB403-X15AC-CX
1450	24	Miniature Bayonet	MB403	MB403-X24-CX-BP
1488	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
1810	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
1813	14.4VAC	Miniature Bayonet	MB403	MB403-X15AC-CX
1815	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
1818	24	Miniature Bayonet	MB403	MB403-X24-CX-BP
1819	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1820	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1829	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1835	55	Miniature Bayonet	MB403	MB403-X60-CX-BP
1843	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1847	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
1850	5	Miniature Bayonet	MB403	MB403-X5-CX

Incandescent Lamp #	Design Voltage	Base Description	VCC Model #	Suggested VCC Part Number
1864	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1866	6.3VAC	Miniature Bayonet	MB403	MB403-X6AC-CX
1873	28	Miniature Bayonet	MB403	MB403-X28-CX-BP
1889	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
1891	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
1892	14.4VAC	Miniature Bayonet	MB403	MB403-X15AC-CX
1893	14	Miniature Bayonet	MB403	MB403-X15-CX-BP
1895	14	Miniature Bayonet	MB403	MB403-X15-CX-BP