

# GERMICIDAL

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## LOW PRESSURE MERCURY ARC LAMPS

USHIO Germicidal lamps are low pressure mercury arc lamps that emit radiation peaking at 253.7nm (UV-C).

Designed by experienced engineers, and by using quality material in combination with a tightly controlled manufacturing process, we provide high quality lamps free of impurities to maintain strong and stable output throughout the life of the lamp.

Our Germicidal lamps are manufactured at an ISO9001 certified facility. Emphasis on quality control and our large production capacity makes us an ideal OEM partner for providing consistent quality lamps with reliable delivery.

These lamps are components which may be used by customers to manufacture a variety of finished products.

## FEATURES & BENEFITS:

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- Low Mercury Dose to Meet Environmental Demands
- Specially Formulated Coating Achieves High Output Over Long Life Hours
- High Purity Lamp Construction to Stabilize UV Output and Minimizes Depreciation (Averages 20-25% Depreciation at End of Life)
- Large Production Capacity Providing Lamps with Consistent Quality and Reliable Delivery
- Flexible Design Capability for Custom Lamp Development

## APPLICATIONS:

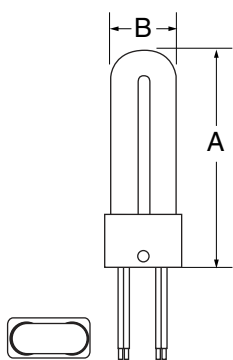
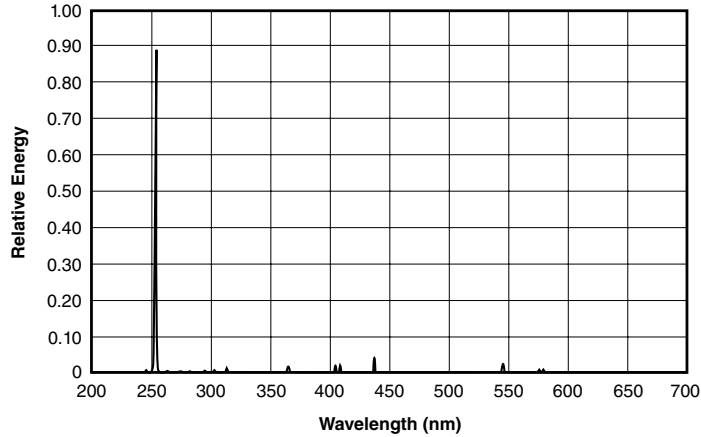
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- Drinking Water
- Wastewater
- Air Conditioning System
- Pharmaceutical Processing
- Food Processing Facility
- Packaging Materials
- Laboratory/Research
- Photochemistry
- Clean Room
- Other Sterilization & Disinfection Needs

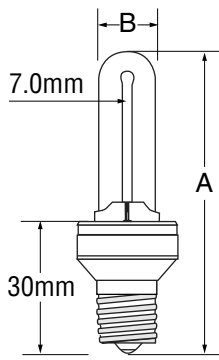
# USHIO



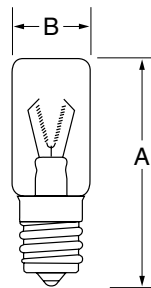
### SPECTRAL DISTRIBUTION GERMICIDAL LAMP 253.7nm



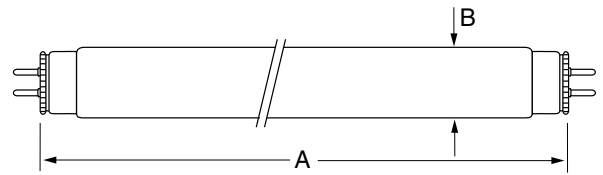
T7



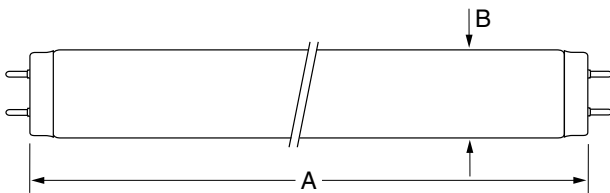
**E17 Base**  
GT3 Replacement  
w/Ballast



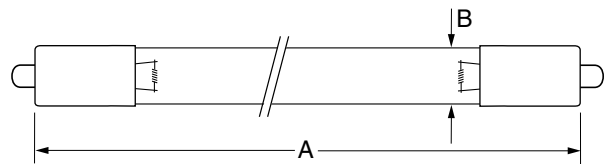
**E17 Base**  
Mini Bowl



**Miniature Bi-Pin G5 Base**  
T5

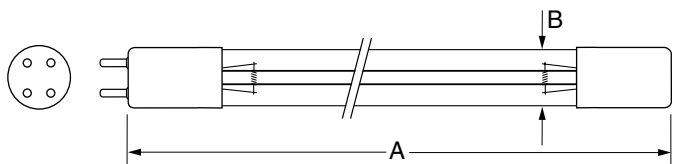
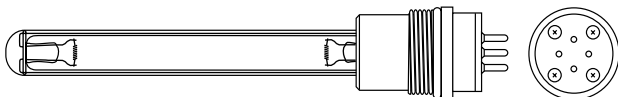


**Medium Bi-Pin G13 Base**  
T8 and T10



**Single-Pin Base**  
T5

**Double Tube Model is available by request**  
Contact USHIO's Germicidal product manager  
for more information.



**4-Pin Base**  
T5

## Low Pressure Mercury Arc Lamps

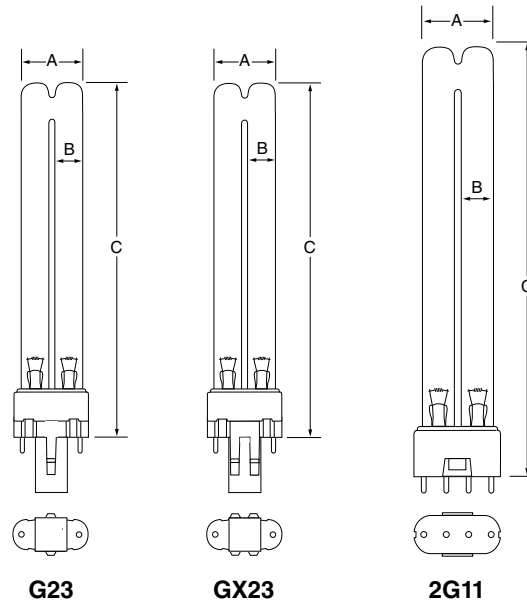
| Watts (W)                                    | Ordering Code | Lamp Description | Base       | Volts (V) | Lamp Current (A) | Dimension       |                   | Spectral Peak (nm) | UV Output (W) | Avg Rated Life (h) |      |      |
|--|---------------|------------------|------------|-----------|------------------|-----------------|-------------------|--------------------|---------------|--------------------|------|------|
|  |               |                  |            |           |                  | Length (A) (mm) | Diameter (B) (in) |                    |               |                    |      |      |
| <b>T7</b>                                    |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 2.3  | 3000667       | GUL3             | —          | 28        | 0.085            | 61.5            | 2.42              | 19.0               | 0.75          | 253.7              | 0.54 | 3000 |
| <b>GT3 Replacement with Ballast E17 Base</b> |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 3.4  | 3000666       | EGD3             | E17        | 115       | 0.050            | 90.0            | 3.54              | 17.7               | 0.70          | 253.7              | 0.5  | 6000 |
| <b>Mini Bowl Intermediate Screw E17 Base</b> |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 3.0  | 3000022       | GTL3             | E17        | 10.5      | 0.300            | 63.0            | 2.48              | 20.0               | 0.79          | 253.7              | 0.16 | 3000 |
| <b>T5 - Miniature Bi-Pin G5 Base</b>         |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 4.5  | 3000013       | G4T5             | G5         | 29.0      | 0.170            | 134.5           | 5.30              | 15.5               | 0.61          | 253.7              | 0.8  | 6000 |
| 6.0  | 3000015       | G6T5             | G5         | 42.0      | 0.160            | 210.5           | 8.29              | 15.5               | 0.61          | 253.7              | 1.8  | 8000 |
| 7.2  | 3000016       | G8T5             | G5         | 57.0      | 0.145            | 287.0           | 11.30             | 15.5               | 0.61          | 253.7              | 2.2  | 8000 |
| 11.0   | 3000310       | G11T5            | G5         | 37.0      | 0.330            | 210.5           | 8.29              | 15.5               | 0.61          | 253.7              | 2.2  | 8000 |
| 16.0   | 3000311       | G16T5            | G5         | 50.0      | 0.350            | 287.0           | 11.30             | 15.5               | 0.61          | 253.7              | 3.2  | 8000 |
| <b>T8 - Medium Bi-Pin G13 Base</b>           |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 9.5  | 3000006       | G10T8            | G13        | 46.0      | 0.230            | 330.0           | 12.99             | 25.5               | 1.00          | 253.7              | 2.7  | 8000 |
| 15.0   | 3000007       | G15T8            | G13        | 55.0      | 0.305            | 436.0           | 17.17             | 25.5               | 1.00          | 253.7              | 4.9  | 8000 |
| 25.0   | 3000008       | G25T8            | G13        | 46.0      | 0.600            | 436.0           | 17.17             | 25.5               | 1.00          | 253.7              | 6.9  | 8000 |
| 30.5   | 3000009       | G30T8            | G13        | 99.0      | 0.355            | 893.0           | 35.15             | 25.5               | 1.00          | 253.7              | 13.9 | 8000 |
| 55.0   | 3000316       | G55T8            | G13        | 83.0      | 0.770            | 893.0           | 35.15             | 25.5               | 1.00          | 253.7              | 18.0 | 8000 |
| <b>T10 - Medium Bi-Pin G13 Base</b>          |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 19.0   | 3000314       | G20T10           | G13        | 58.0      | 0.360            | 588.5           | 23.17             | 32.5               | 1.28          | 253.7              | 7.5  | 8000 |
| 39.5   | 3000315       | G40T10           | G13        | 106.0     | 0.420            | 1198.0          | 47.17             | 32.5               | 1.28          | 253.7              | 19.8 | 8000 |
| <b>T5 - Single Pin Base</b>                  |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 16.0   | 3000338       | G10T5L           | Single Pin | 55.0      | 0.425            | 357.0           | 14.06             | 15.5               | 0.61          | 253.7              | 5.3  | 9000 |
| 39.0   | 3000312       | G36T5L           | Single Pin | 115.0     | 0.425            | 846.0           | 33.31             | 15.5               | 0.61          | 253.7              | 13.0 | 9000 |
| 65.0   | 3000313       | G64T5L           | Single Pin | 250.0     | 0.425            | 1553.6          | 61.17             | 15.5               | 0.61          | 253.7              | 27.0 | 9000 |
| <b>T5 - Single Pin Base - Quartz</b>         |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 39.0   | 3000010       | G36T5L           | Single Pin | 120.0     | 0.425            | 846.0           | 33.31             | 15.0               | 0.59          | 253.7              | —    | 9000 |
| 65.0   | 3000014       | G64T5L           | Single Pin | 220.0     | 0.425            | 1572.0          | 61.89             | 15.0               | 0.59          | 253.7              | —    | 7500 |
| <b>T5 - Single Pin Base - Ozone</b>          |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 16.0   | 3000005       | G10T5VH          | Single Pin | 55.0      | 0.425            | 375.0           | 14.76             | 15.0               | 0.59          | 253.7              | —    | 7500 |
| 39.0   | 3000011       | G36T5VH          | Single Pin | 120.0     | 0.425            | 860.0           | 33.86             | 15.0               | 0.59          | 253.7              | —    | 7500 |
| 65.0   | 3000242       | G64T5VH          | Single Pin | 220.0     | 0.425            | 1554.0          | 61.18             | 15.0               | 0.59          | 253.7              | 25.0 | 9000 |
| <b>T5 - 4-Pin Base</b>                       |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 14.0   | 3000348       | G14T5L/4P        | 4-Pin      | 40.0      | 0.425            | 287.0           | 11.30             | 15.5               | 0.61          | 253.7              | 3.0  | 8000 |
| 22.0   | 3000350       | G22T5L/4P        | 4-Pin      | 62.0      | 0.425            | 436.0           | 17.16             | 15.5               | 0.61          | 253.7              | 7.0  | 8000 |
| 39.0   | 3000343       | G36T5L/4P        | 4-Pin      | 115.0     | 0.425            | 846.0           | 33.31             | 15.5               | 0.61          | 253.7              | 13.0 | 9000 |
| <b>T5 - 4-Pin Base - Quartz</b>              |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 16.0   | 3000425       | G10T5L/4P        | 4-Pin      | 55.0      | 0.425            | 357.0           | 14.06             | 15.0               | 0.59          | 253.7              | 5.7  | 9000 |
| 65.0   | 3000423       | G64T5L/4P        | 4-Pin      | 220.0     | 0.425            | 1554.0          | 61.18             | 15.0               | 0.59          | 253.7              | 25.0 | 9000 |
| <b>T5 - 4-Pin Base - Ozone</b>               |               |                  |            |           |                  |                 |                   |                    |               |                    |      |      |
| 16.0   | 3000354       | G10T5VH/4P       | 4-Pin      | 55.0      | 0.425            | 357.0           | 14.06             | 15.0               | 0.59          | 253.7              | 5.7  | 9000 |

Average lamp life and output measurements taken under laboratory conditions in open air.  
Lamps are cycled for 2 hours 45 minutes on / 15 minutes off when testing life and output.  
Lamp data is for reference only. Actual lamp performance depends on system design and operating conditions.

**Warning:** Protect your eyes and skin when operating Germicidal lamps.  
Equipment should be designed to completely screen or filter UV-C radiation.

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## Low Pressure Mercury Arc Lamps



| Watts (W)                  | Ordering Code | Lamp Description | Base | Volts (V) | Lamp Current (A) | Dimensions |      |              |      | Spectral Peak (nm) | UV Output (W) | Avg Rated Life (h) |            |      |
|----------------------------|---------------|------------------|------|-----------|------------------|------------|------|--------------|------|--------------------|---------------|--------------------|------------|------|
|                            |               |                  |      |           |                  | Length (A) |      | Diameter (B) |      |                    |               |                    | Length (C) |      |
|                            |               |                  |      |           |                  | (mm)       | (in) | (mm)         | (in) | (mm)               | (in)          |                    |            |      |
| <b>G23 &amp; GX23 Base</b> |               |                  |      |           |                  |            |      |              |      |                    |               |                    |            |      |
| 5.5                        | 3000321       | GPX5             | G23  | 35        | 0.180            | 28.0       | 1.10 | 13.0         | 0.51 | 85.0               | 3.35          | 253.7              | 1.2        | 8000 |
| 7.0                        | 3000328       | GPX7             | G23  | 45        | 0.180            | 28.0       | 1.10 | 13.0         | 0.51 | 115.0              | 4.53          | 253.7              | 1.9        | 8000 |
| 9.0                        | 3000304       | GPX9             | G23  | 59        | 0.180            | 28.0       | 1.10 | 13.0         | 0.51 | 145.0              | 5.71          | 253.7              | 2.4        | 8000 |
| 11.8                       | 3000322       | GPX11            | G23  | 91        | 0.155            | 28.0       | 1.10 | 13.0         | 0.51 | 215.0              | 8.46          | 253.7              | 3.0        | 8000 |
| 13.4                       | 3000323       | GPX13            | GX23 | 59        | 0.285            | 28.0       | 1.10 | 13.0         | 0.51 | 170.0              | 6.69          | 253.7              | 3.6        | 8000 |
| <b>2G11 Base</b>           |               |                  |      |           |                  |            |      |              |      |                    |               |                    |            |      |
| 18.0                       | 3000324       | GPL18K           | 2G11 | 58        | 0.375            | 40.0       | 1.57 | 20.0         | 0.51 | 225.0              | 8.86          | 253.7              | 5.5        | 8000 |
| 36.0                       | 3000339       | GPL36K           | 2G11 | 106       | 0.435            | 40.0       | 1.57 | 20.0         | 0.51 | 415.0              | 16.33         | 253.7              | 12.0       | 8000 |

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