# 5559

# THYRATRON

MERCURY-VAPOR TRIODE

## DATA

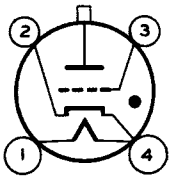
**Electrical:**

| | | |
|---|---|---|
| Heater, for Unipotential Cathode: | | |
| Voltage | 5.0 | volts |
| Current | 4.5 | amp |
| Cathode: | | |
| Minimum Heating Time, prior to tube conduction | 5 | minutes |
| Direct Interelectrode Capacitances (Approx.): | | |
| Grid to Anode | 2.5 | μμf |
| Grid to Cathode | 10 | μμf |
| Ionization Time (Approx.) | 10 | μsec |
| Deionization Time (Approx.) | 1000 | μsec |
| Anode Voltage Drop (Approx.) | 16 | volts |
| Grid-No.1 Control Ratio (Approx.) with grid-No.1 resistor (megohms) = 0 | 220 | |

**Mechanical:**

| | |
|---|---|
| Mounting Position | Vertical, Base Down |
| Overall Length | 7" ± 1/4" |
| Seated Length | 6-3/8" ± 1/4" |
| Maximum Diameter | 3" |
| Bulb | ST-23 |
| Cap. | Medium |
| Base | Medium-Shell Small 4-Pin, Bayonet |
| Basing Designation for BOTTOM VIEW | 4BL |

Pin 1 – Heater
Pin 2 – Cathode; Circuit Returns
Pin 3 – Grid
Pin 4 – Heater, Cathode
Cap – Anode




**Maximum Ratings, *Absolute Values*:**

| | | |
|---|---|---|
| PEAK ANODE VOLTAGE: | | |
| Forward | 1000 max. | volts |
| Inverse | 1000 max. | volts |
| GRID VOLTAGE: | | |
| Before Conduction | -500 max. | volts |
| During Conduction | -10 max. | volts |
| CATHODE CURRENT: | | |
| Peak | 15 max. | amp |
| Average** | 2.5 max. | amp |
| Fault, for 0.1 sec. maximum | 200 max. | amp |
| GRID CURRENT: | | |
| Average** | +0.25 max. | amp |
| COND.-MERCURY TEMPERATURE RANGE▲ | +40 to +80 | °C |
| OPERATING FREQUENCY | 150 max. | cps |

** Averaged over any interval of 15 sec. max.

▲ Recommended operating temperature is 40°C.

← Indicates a change.

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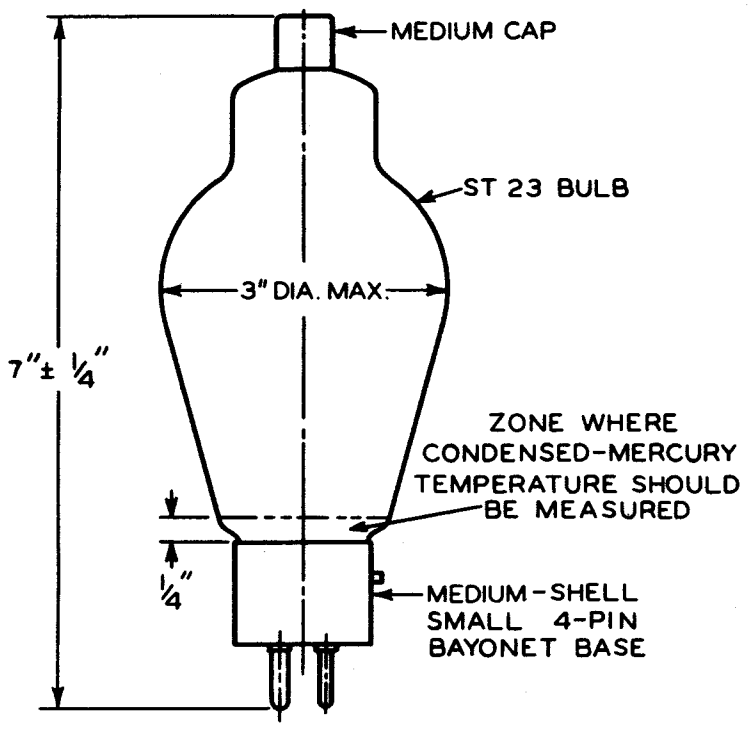




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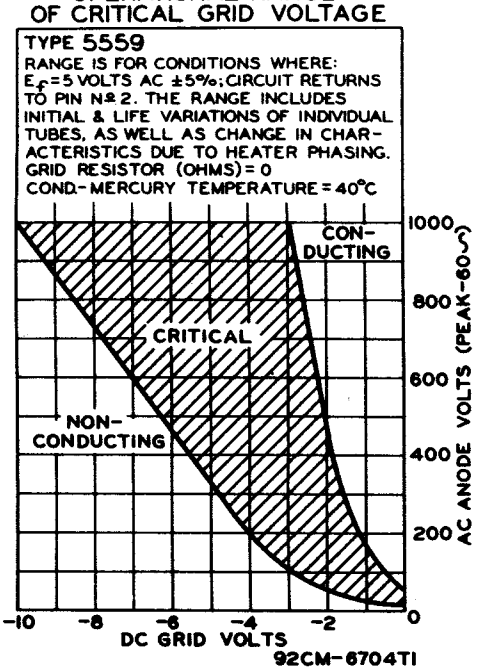
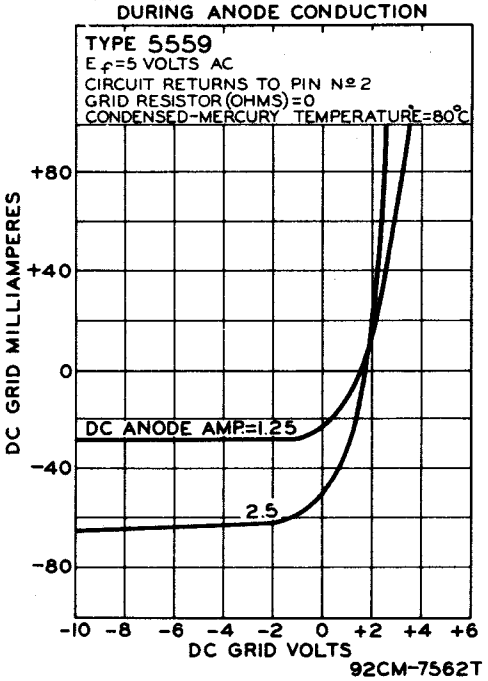
## OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE




## AVERAGE GRID CHARACTERISTICS DURING ANODE CONDUCTION



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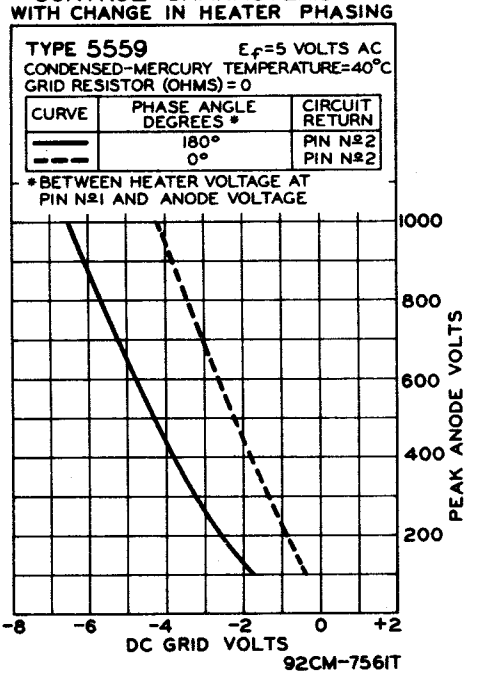
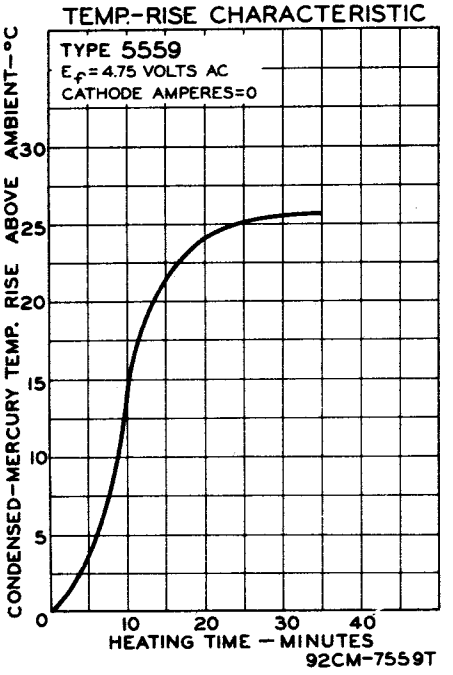
## SHIFT OF AVERAGE CONTROL CHARACTERISTIC WITH CHANGE IN HEATER PHASING




## TEMP.-RISE CHARACTERISTIC



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