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GAS THYRATRON

NEGATIVE-CONTROL TETRODE TYPE

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

| | Min. | Average | Max. | |
|--------------------------------|------|---------|------|----------------|
| Voltage | 5.7 | 6.3 | 6.9 | ac or dc volts |
| Current at 6.3 volts | - | 2.6 | 2.85 | amp |

Cathode:

| | | |
|---|----|-----|
| Minimum heating time prior to tube conduction | 30 | sec |
| Maximum outage time without reheating | 5 | sec |

Direct Interelectrode Capacitances (Approx.):^o

| | | |
|---|------|----|
| Grid No.1 to anode | 0.23 | μf |
| Grid No.1 to cathode, grid No.2, and heater | 5.8 | μf |
| Anode to cathode, grid No.2, and heater | 3.9 | μf |

Ionization Time (Approx.):

| | | |
|---|-----|------|
| For conditions: dc anode volts = 100, grid-No.2 volts = 0, grid-No.1 square-pulse volts = +50, and peak anode amperes during conduction = 5 | 0.5 | μsec |
|---|-----|------|

Deionization Time (Approx.)

See Table I ←

Maximum Critical Grid-No.1 Current:

| | | |
|--|----|-------|
| For conditions: ac anode-supply volts = 460 (rms), and average anode amperes = 0.5 | 3 | μamp |
| Anode Voltage Drop (Approx.) | 10 | volts |

Grid-No.1 Control Ratio (Approx.):

| | |
|---|-----|
| For conditions: grid-No.1 resistor (megohms) = 0, grid-No.2 resistor (megohms) = 0, and grid-No.2 volts = 0 | 150 |
|---|-----|

Grid-No.2 Control Ratio (Approx.):

| | |
|---|-----|
| For conditions: grid-No.1 resistor (megohms) = 0, grid-No.2 resistor (megohms) = 0, and grid-No.1 volts = 0 | 650 |
|---|-----|

Mechanical:

| | |
|---|---------------------------|
| Mounting Position | Any |
| Maximum Overall Length | 3-7/8" ← |
| Maximum Seated Length | 3-5/16" ← |
| Maximum Diameter | 1-23/32" ← |
| Bulb | T-12 ← |
| Base | Large-Wafer Octal 6-Pin ← |
| with External Barriers and Sleeve (JETEC No.B6-100) | |

^o Without external shield.

← Indicates a change.

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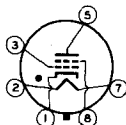
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Basing Designation for BOTTOM VIEW 6C0

Pin 1 - Cathode

Pin 2 - Heater

Pin 3 - Grid No.1



Pin 5 - Anode

Pin 7 - Heater

Pin 8 - Grid No.2

RELAY AND GRID-CONTROLLED RECTIFIER SERVICE

For anode-supply frequency of 60 cps

Maximum Ratings, Absolute Values:

PEAK ANODE VOLTAGE:

| | | |
|-------------------|-----------|-------|
| Forward | 650 max. | volts |
| Inverse | 1300 max. | volts |

GRID-No.2 (SHIELD-GRID) VOLTAGE:

| | | |
|---|-----------|-------|
| Peak, before tube conduction | -100 max. | volts |
| Average [#] , during tube conduction | -10 max. | volts |

GRID-No.1 (CONTROL-GRID) VOLTAGE:

| | | |
|---|-----------|-------|
| Peak, before tube conduction | -200 max. | volts |
| Average [#] , during tube conduction | -10 max. | volts |

CATHODE CURRENT:

| | | |
|--|----------|-----|
| Peak | 5 max. | amp |
| Average [#] | 0.5 max. | amp |
| Fault, for duration of 0.1 second max. | 20 max. | amp |

AVERAGE GRID-No.2 CURRENT[#] +0.05 max. ampAVERAGE GRID-No.1 CURRENT[#] +0.05 max. amp

PEAK HEATER-CATHODE VOLTAGE:

| | | |
|--|----------|-------|
| Heater negative with respect to cathode. | 100 max. | volts |
| Heater positive with respect to cathode. | 25 max. | volts |

AMBIENT-TEMPERATURE RANGE. -75 to +90 °C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance 2 max. megohms

[#] Averaged over any interval of 30 seconds maximum.

→ Indicates a change.



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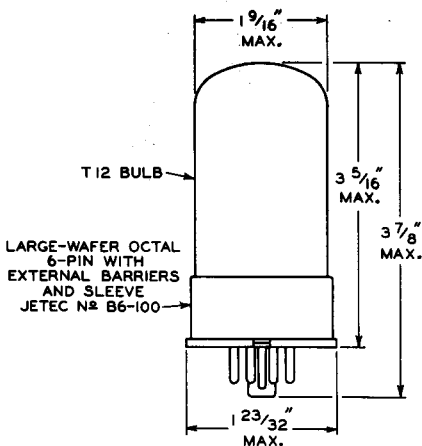
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TABLE I

 E_{cc1} = DC Grid-No.1 Supply Voltage (Volts) E_{cc2} = DC Grid-No.2 Supply Voltage (Volts) R_{g1} = Grid-No.1 Resistor (Megohms) R_{g2} = Grid-No.2 Resistor (Ohms)

| DC Anode Volts | 125 | | 250 | | R_{g1} | E_{cc1} | R_{g2}^* | E_{cc2} |
|--|-----|-----|------|------|----------|-----------|------------|-----------|
| DC Anode Amperes | 0.5 | 1.0 | 0.5 | 1.0 | | | | |
| DEIONIZATION TIME μ sec (Approx.) | 175 | 225 | 250 | 275 | 0.001 | -13 | 1000 | 0 |
| | 350 | 375 | 450 | 475 | 0.1 | | | |
| | 650 | 700 | 1100 | 1200 | 2 | | | |
| | 100 | 125 | 100 | 125 | 0.001 | -100 | 1000 | 0 |
| | 125 | 150 | 150 | 175 | 0.1 | | | |
| | 250 | 275 | 275 | 300 | 2 | | | |

* Series resistor between grid No.2 and cathode.



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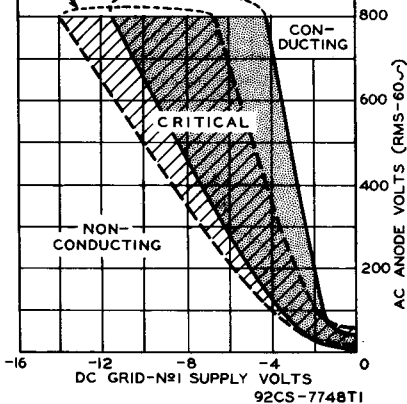
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OPERATIONAL RANGE
OF CRITICAL GRID-N^o2 VOLTAGE

GRID-N^o2 (SHIELD) VOLTS=0
 RANGES SHOWN ARE FOR TWO VALUES
 OF GRID-N^o1 RESISTOR, 0.1 MEG. AND
 2 MEG., AND TAKE INTO ACCOUNT INITIAL
 DIFFERENCES BETWEEN INDIVIDUAL
 TUBES AND SUBSEQUENT DIFFERENCES
 DURING TUBE LIFE. FOR HEATER-
 VOLTAGE RANGE OF 5.7 TO 6.9 VOLTS
 AND FOR AN AMBIENT TEMPERATURE
 RANGE OF FROM -75° TO +90° C.

RANGE FOR
2 MEGOHMS

RANGE FOR
0.1 MEGOHM

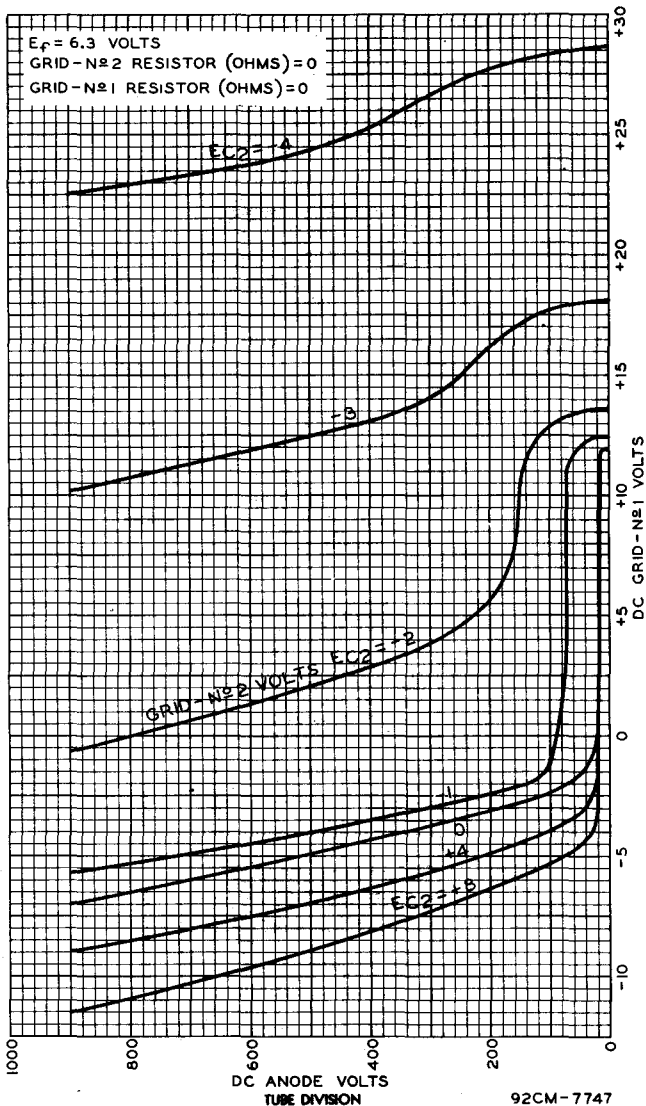




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AVERAGE CONTROL CHARACTERISTICS





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CHARACTERISTIC CURVES

