Gas and Mercury-Vapor Thyatron

NEGATIVE-CONTROL TRIODE TYPE

GENERAL DATA

**Electrical:**

Filament, Coated:
- Voltage (AC or DC) between pins 1 and 4: 2.5 volts
- Current at 2.5 volts: 9 ± 2 amp
- Minimum heating time prior to tube conduction: 20 sec

Direct Interelectrode Capacitances (Approx.):
- Grid to anode: 2 μμf
- Grid to cathode: 12 μμf
- Ionization Time (Approx.): 10 μsec
- Deionization Time (Approx.): 1000 μsec
- Peak Tube Voltage Drop at anode amperes = 8: 10 volts

**Mechanical:**

Operating Position: Vertical, base down
- Maximum Overall Length: 6-1/4"
- Maximum Diameter: 1-5/8"
- Weight (Approx.): 4 oz
- Bulb: T13
- Cap.: Medium (JEDEC No.C1-5)
- Socket: Small 4-Contact
- Base: Medium-Shelf Small 4-Pin with Bayonet (JEDEC No.A4-10)

Basing Designation for BOTTOM VIEW: 4CF

Pin 1 - Filament
Pin 2 - Filament
Tap, Circuit Returns

Pin 3 - Grid
Pin 4 - Filament
Cap - Anode

**Thermal:**

Type of Cooling: Convection

Temperature Rise of Condensed Mercury to Equilibrium Above Ambient Temperature (Approx.):
- No load: 25 °C
- Full load: 30 °C

**GRID-CONTROLLED-RECTIFIER SERVICE**

Maximum and Minimum Ratings, Absolute-Maximum Values:
For anode-supply frequency of 60 cps

PEAK ANODE VOLTAGE:
- Forward: 1500 max. volts
- Inverse: 1500 max. volts
PEAK NEGATIVE GRID VOLTAGE:
  Before tube conduction. ............ 500 max. volts
  During tube conduction. ............ 10 max. volts

CATHODE CURRENT:
  Peak. ................................ 30 max. amp
  Average\(^b\) ......................... 2.5 max. amp
  Fault ................................ 250 max. amp

CONDENSED-MERCURY TEMPERATURE RANGE (Operating)\(^c\) ............ -40 to +80 °C

\(^a\) Without external shield.
\(^b\) Averaged over any interval of 5 seconds maximum.
\(^c\) For longest life, the operating condensed-mercury temperature range after warm-up should be kept between +40° and +80° C which corresponds approximately to +10° to +50° C ambient.