GL-6856 - GL-6857

THYRATRONS

TRIODE TYPE QUICK-HEATING CATHODE

NEGATIVE CONTROL CHARACTERISTICS INERT-GAS AND MERCURY-VAPOR TYPE

DESCRIPTION AND RATING

These tubes are three-electrode inert-gas and mercury-vapor thyatrons with negative control characteristics for use in all control applications. They combine the desirable temperature characteristic of gas tubes, maximum ratings over a wide temperature range, with the long life of mercury tubes. Another feature useful in industrial applications is a quick-heating filamental-type cathode - only 30 seconds is required for the cathode to reach operating temperature.

The tubes are alike except for the type base used. The GL-6856 has a four-pin base for conventional socket mounting; the GL-6857 a bracket-type base for panel mounting.

TECHNICAL INFORMATION

GENERAL

Electrical

Cathode - Filamentary

- Filament Voltage: 2.5 Volts
- Filament Current at 2.5 Volts: 16 ± 2 Amperes
- Heating Time: 30 Seconds

- Anode to Control-Grid Capacitance: 3 µuf

- Deionization Time, approximate: 1000 Microseconds
- Ionization Time, approximate: 10 Microseconds
- Anode Voltage Drop: 12 Volts
- Critical Grid Current: 10 Microamperes

Control Characteristics

- Anode Voltage: 100, 500, 1250 Volts
- Grid Voltage: -1.0, -3.0, -5.2 Volts

Mechanical

- Mounting Position - Vertical, Base Down
- Equilibrium Condensed-Mercury Temperature
- Rise Above Ambient: 25°C
- Net Weight, maximum: 7 Ounces
MAXIMUM RATINGS, Absolute Values

Maximum Peak Anode Voltage
- Inverse ............... 1500 1500 Volts
- Forward .............. 1500 1500 Volts

Maximum Cathode Current
- Peak .................. 30  50 Amperes
- Average ............... 4.0  2.5 Amperes
- Maximum Averaging Time ...... 5.0  5.0 Seconds
- Fault .................. 400 400 Amperes
- Maximum Duration .......... 0.1 0.1 Seconds

Maximum Negative Control-Grid Voltage
- Before Conduction .............. 500 Volts
- During Conduction ............. 10 Volts

Condensed-Mercury Temperature Limits ...... -40 to +80 C

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