

# Technical Information

## CK7576

### SUBMINIATURE TRIODE

The CK7576 is a heater-cathode type high-Mu triode of subminiature construction especially designed for grounded grid RF power amplifier service in the VHF and UHF regions. Excellent isolation between input and output circuits coupled with high transconductance, high amplification factor, and good power handling ability make it suitable for a wide variety of applications. The flexible terminal leads may be soldered or welded directly to the terminal of circuit components without the use of sockets. Standard 8-pin subminiature sockets may be used by cutting the leads to a suitable length.

### ELECTRICAL DATA

#### DIRECT INTERELECTRODE CAPACITANCES: ( $\mu\text{mf}$ )

|                                       | With Shields<br>(Note 1) | Without Shield |
|---------------------------------------|--------------------------|----------------|
| Plate to Cathode (P to K)             | 0.15 max.                | 0.2 max        |
| Output (Grounded Grid) (P to G + H)   | 5.3                      | 3.5            |
| Cathode to Heater (K to H)            | 5.8                      | 5.8            |
| Input (Grounded Grid) (K to G + H)    | 12                       | 12             |
| Grid to Cathode + Heater (G to K + H) | 7.9                      | 6.3            |
| Cathode to Grid (H + P Gnd.)          | 6.0                      | 5.9            |

#### RATINGS—ABSOLUTE MAXIMUM VALUES:

|                               |                     |
|-------------------------------|---------------------|
| Heater Voltage                | 6.3 $\pm$ 5% volts  |
| Plate Voltage                 | 250 volts           |
| DC Grid Voltage               | -55 volts           |
| Cathode Current               | 50 mA <sub>dc</sub> |
| Grid Current                  | 10 mA <sub>dc</sub> |
| Grid Dissipation              | 0.2 watts           |
| Plate Dissipation             | 4.1 watts           |
| Peak Heater - Cathode Voltage | $\pm$ 90 volts      |
| Grid Circuit Resistance       |                     |
| class A                       | 0.1 Meg             |
| fixed bias class C            | 0.01 Meg            |
| cathode bias class C          | 0.05 Meg            |
| Peak Positive RF Grid Voltage | 10 volts            |

#### CHARACTERISTICS AND TYPICAL OPERATION CLASS A:

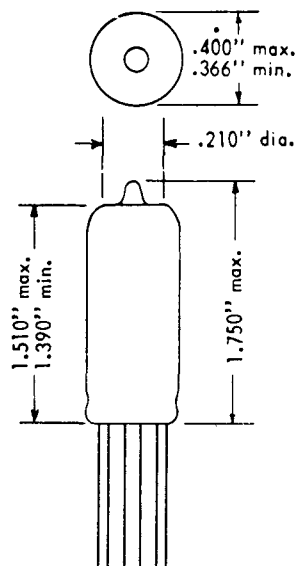
|                                                      |                         |
|------------------------------------------------------|-------------------------|
| Filament Voltage                                     | 6.3 $\pm$ 5% volts      |
| Heater Current                                       | 450 mA                  |
| Plate Voltage                                        | 200 volts               |
| Grid Voltage                                         | 0                       |
| Cathode Resistance                                   | 150 ohms                |
| Plate Current                                        | 15.5 mA <sub>dc</sub>   |
| Transconductance                                     | 10,700 $\mu\text{mhos}$ |
| Amplification Factor                                 | 46                      |
| Grid Bias for $I_b = 100 \mu\text{A}_{dc}$ (Approx.) | -6.0 volts              |

- Note 1 Shield tied to grid.

### MECHANICAL DATA

ENVELOPE..... T-3 Glass  
BASE... Subminiature Button 8-Pin  
(0.017" thinned flexible leads  
Length: 1.5)  
MOUNTING POSITION:..... Any

### PHYSICAL DIMENSIONS



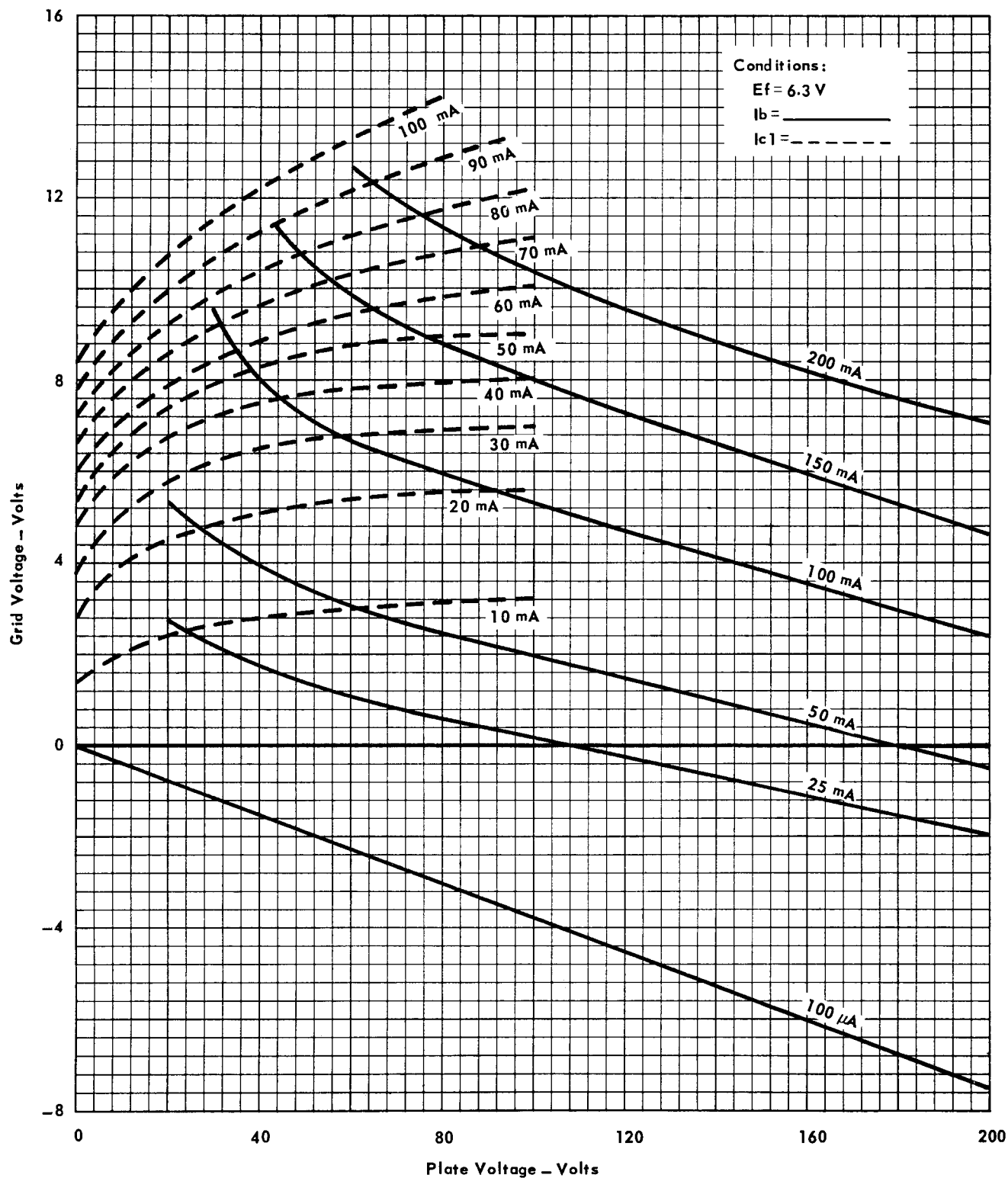
### TERMINAL CONNECTIONS:

- Lead 1 Heater
- Lead 2 Grid
- Lead 3 Plate
- Lead 4 Grid
- Lead 5 Grid
- Lead 6 Cathode
- Lead 7 Grid
- Lead 8 Heater



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### AVERAGE CHARACTERISTICS

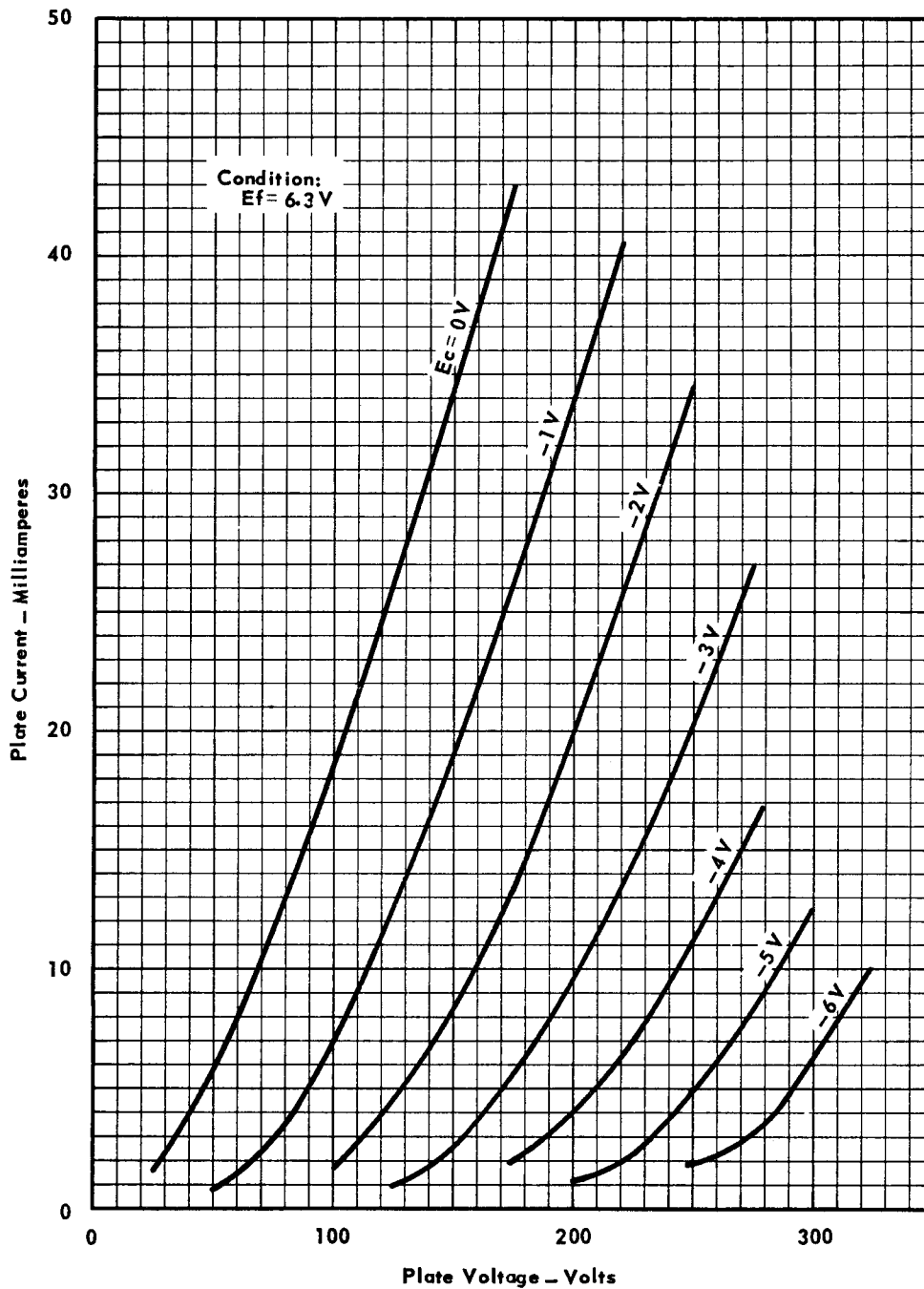




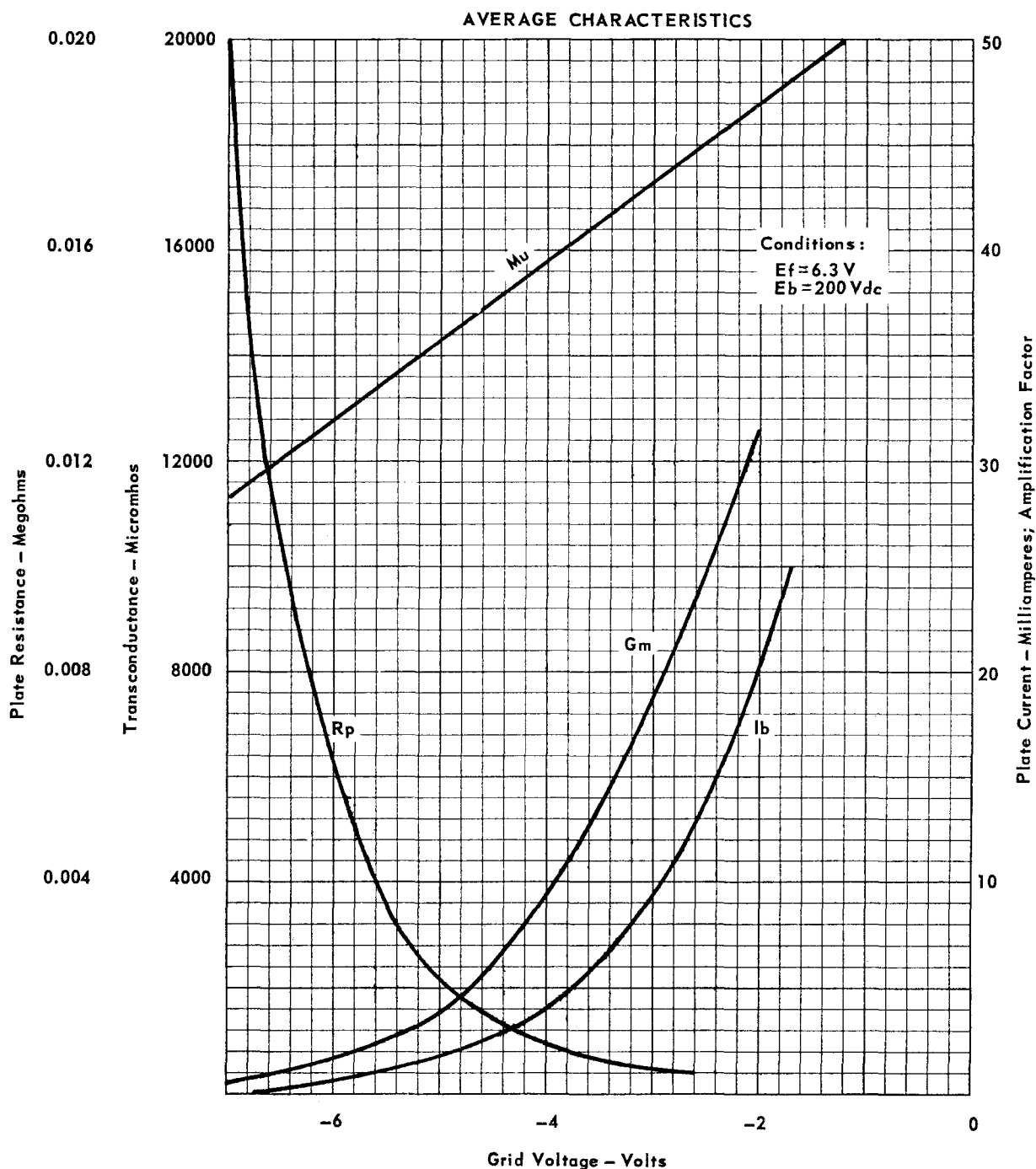
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AVERAGE PLATE CHARACTERISTICS



## SUBMINIATURE TRIODE





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SUBMINIATURE TRIODE

AVERAGE CHARACTERISTICS

